

# D-SUB/IP67 D-SUB CONNECTORS

# CONEC®

TECHNOLOGY IN CONNECTORS™



IP67  
Hoods  
POWER  
Combination D-SUB  
MECH. ENGINEERING  
Filter D-SUB/IP67 D-SUB  
COMMUNICATIONS  
Conec SlimCon  
STANDARD  
customized





## TECHNOLOGY IN CONNECTORS™

For more than 40 years, CONEC Elektronische Bauelemente GmbH has been developing, producing and marketing high-quality connectors, patch cable and single ended cable as well as enclosure technology.

CONEC products are used in automation, telecommunications and energy technology, machine manufacturing, agriculture and medical technology, transportation and the aviation industry.

The headquarters in Lippstadt has a large research and development department, its own tool-making department, a CNC-turning department and a synthetics injection moulding plant.

As part of the Amphenol Group, CONEC participates in the growth and development opportunities of a globally active group and at the same time acts flexibly and quickly as a medium-sized company in order to optimally adapt to changing customer needs.

CONEC Germany, Lippstadt




CONEC Canada, Brampton



CONEC USA, Garner

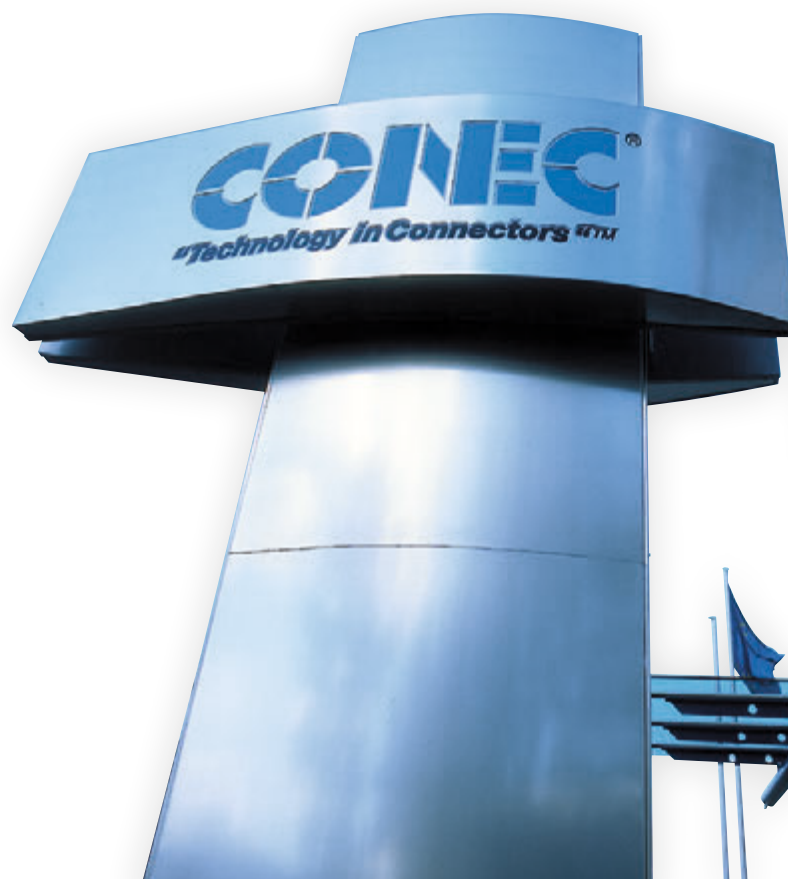




In addition to a variety of connectors for all current standards, our particular strength is the integrated moulding of components and assemblies and the development of customized solutions.

CONEC is a global player with its own subsidiaries and/or production sites in Canada, the USA, China, the Czech Republic, Poland and France.

The company's quality management ensures high quality by applying the international standards DIN EN ISO 9001. Depending on the product family, CONEC industrial connectors are tested and approved in accordance with UL, CSA or VDE.



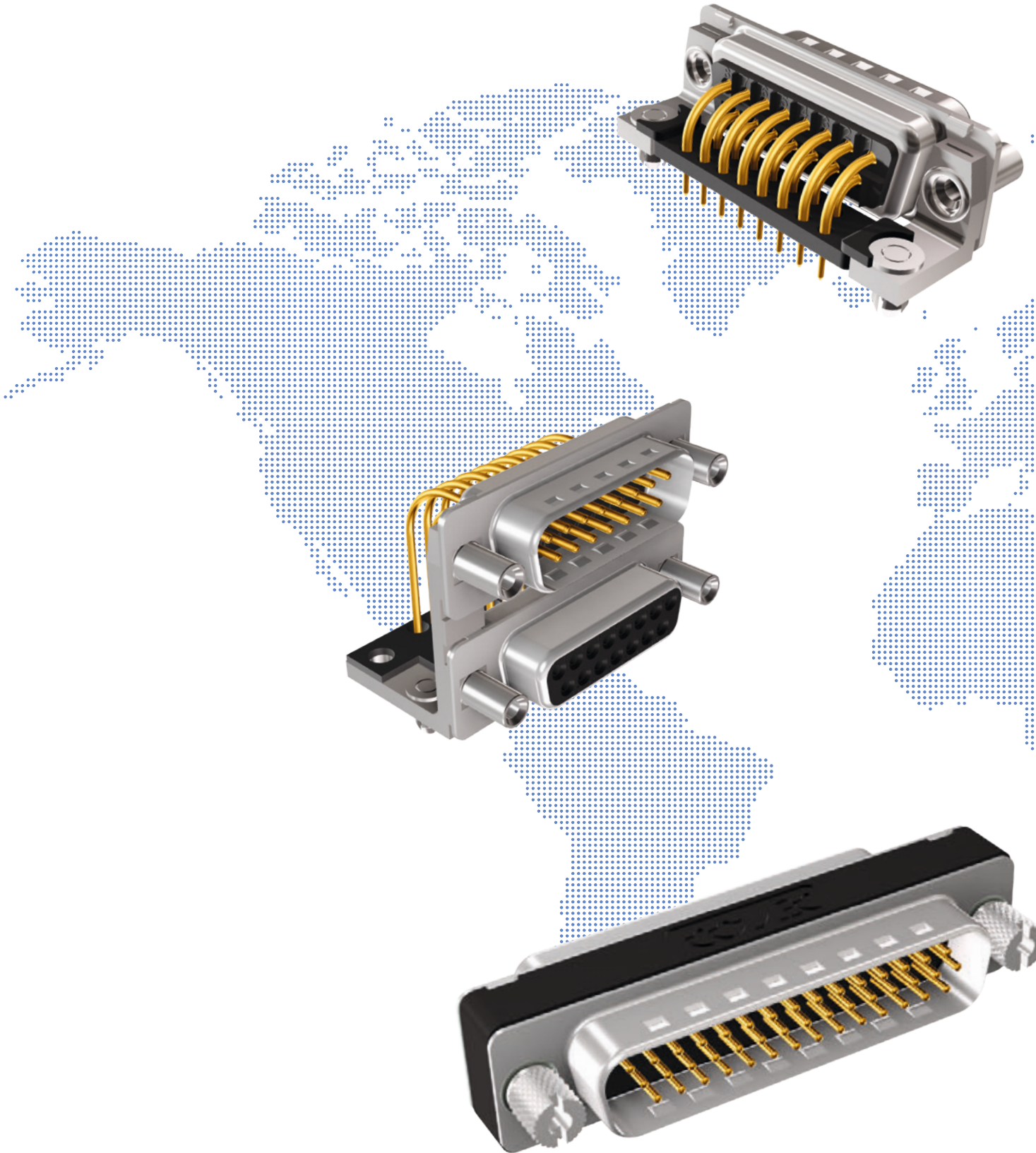
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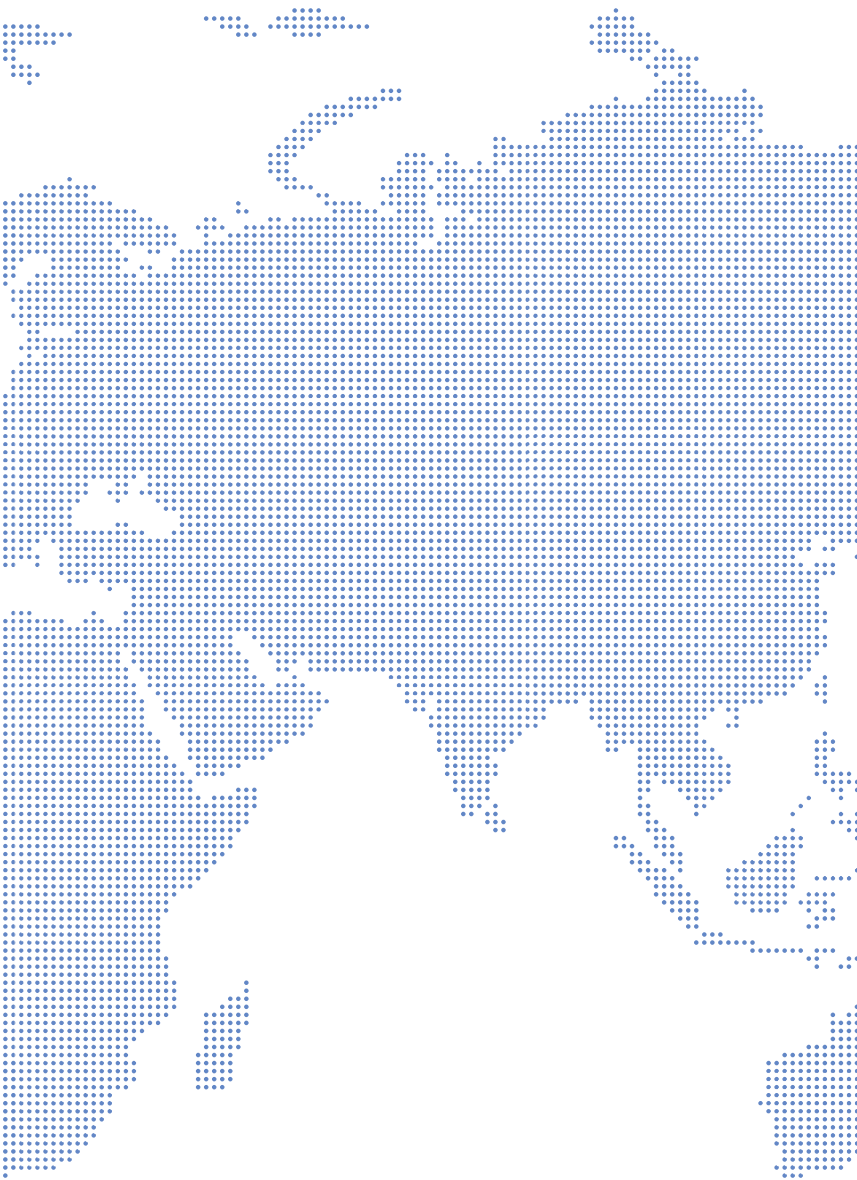
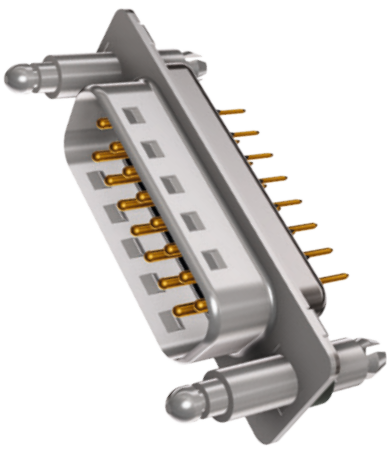
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SECTION 1

# D-SUB CONNECTORS





## D-SUB CONNECTORS

### Product specification

Basic material	D-SUB 9-, 15-, 25-, 37-, 50-pos.	D-SUB High Density 15-, 26-, 44-, 62-, 78-pos.
Contact	Copper alloy	
Contact plating	Gold over nickel	
Insulator	PBT GF UL 94 V-0	
Shell	Steel tin plated / nickel plated (on request brass tin plated or stainless steel)	
Technical Data		
Test voltage	1000 V, 50 Hz, for 1 Minute	
Working voltage	125 V AC/DC depending on isolation coordination refer to DIN VDE 0110 / IEC 664-1	
Current rating	7.5 A (UL) / 5 A (CSA, VDE)	3 A (UL, VDE) / 2.5 A (CSA)
Contact resistance	max. 10 mΩ prior to stressing ΔR max. 10 mΩ after stressing per IEC 60807-2	
Insulation resistance	≥ 5 GΩ	
Clearance and creepage distance	Contact - Contact ≥ 1.0 mm / 0.04" Contact - earth ≥ 1.2 mm / 0.047"	≥ 0.6 mm / 0.024"
Operating temperature	-55 °C to +125 °C	
Mating and unmating forces	9-pos. ≤ 30 N 15-pos. ≤ 50 N 25-pos. ≤ 83 N 37-pos. ≤ 123 N 50-pos. ≤ 167 N	15-pos. ≤ 50 N 26-pos. ≤ 84 N 44-pos. ≤ 120 N 62-pos. ≤ 170 N 78-pos. ≤ 200 N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles	

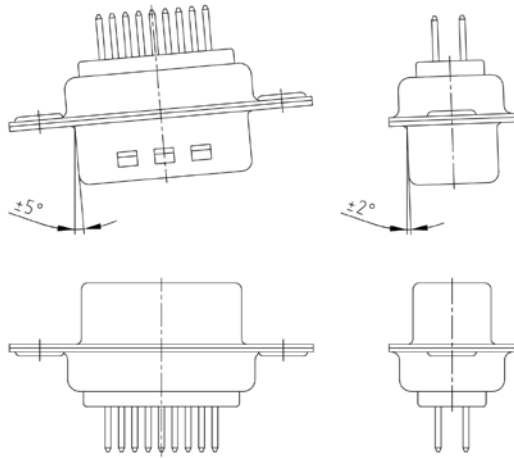
Technical specifications are subject to change without notice.



# D-SUB CONNECTORS

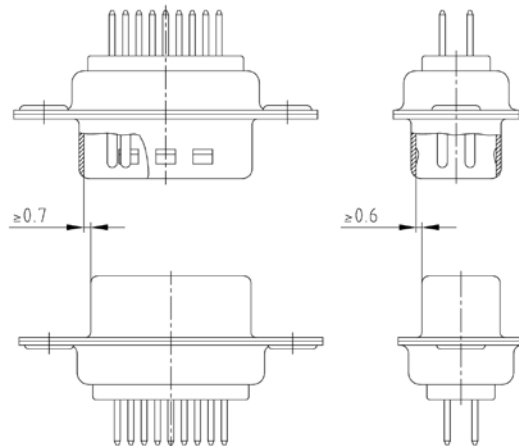
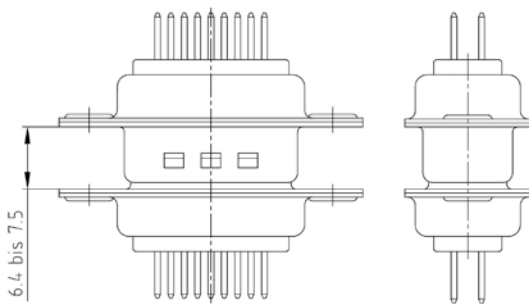
## Mating conditions

### Max. tilt angle for connector mating



### Range for safe contact

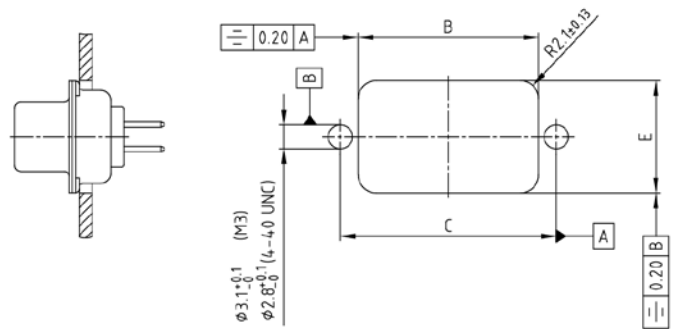
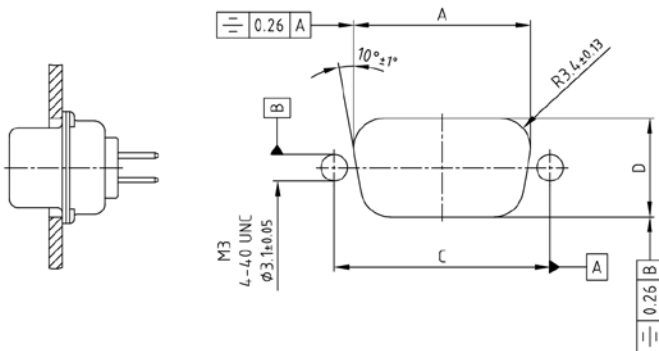
### Lock-in range



## Panel cut-out

### Back panel mounting

### Front panel mounting



Shell size	No. of poles	A ±0.1	B ±0.1	C ±0.1	D ±0.1	E ±0.1
1	9 15	20.50	20.90	25.00	11.40	13.00
2	15 26	28.80	29.20	33.30	11.40	13.00
3	25 44	42.50	42.90	47.04	11.40	13.00
4	37 62	59.10	59.40	63.50	11.40	13.00
5	50 78	56.30	57.00	61.10	14.10	15.80

Technical specifications are subject to change without notice.

## D-SUB CONNECTORS Standard

Solder cup  
Precision machined contacts, AWG 20

Through-hole Ø 3 mm

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
9	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A10019X	163A11069X
15					164A10029X	163A11079X
25					164A10039X	163A11089X
37					164A10049X	163A11099X
50					164A10059X	163A11109X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A10219X	163A11269X
15					164A10229X	163A11279X
25					164A10239X	163A11289X
37					164A10249X	163A11299X
50					164A10259X	163A11309X

## D-SUB CONNECTORS Standard

Solder cup  
Stamped contacts, AWG 20

Through-hole Ø 3 mm

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
09	3	125		3	302A10019X	301A10019X
15					302A10029X	301A10029X
25					302A10059X	301A10059X
37					302A10069X	301A10069X
50					302A10079X	301A10079X

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

## D-SUB CONNECTORS Standard

Solder pin, straight  
Precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Through-hole  $\varnothing$  3 mm

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A10069X	163A11119X
	15					164A10079X	163A11129X
	25					164A10089X	163A11139X
	37					164A10099X	163A11149X
	50					164A10109X	163A11159X

4-40 UNC threaded insert

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A10319X	163A11369X
	15					164A10329X	163A11379X
	25					164A10339X	163A11389X
	37					164A10349X	163A11399X
	50					164A10359X	163A11409X

4-40 UNC threaded rear spacer

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A12029X	163A13629X
	15					164A12039X	163A13639X
	25					164A12049X	163A13649X
	37					164A12059X	163A13659X
	50					164A12069X	163A13669X

4-40 UNC front, threaded rear spacer

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A12129X	163A13729X
	15					164A12139X	163A13739X
	25					164A12149X	163A13749X
	37					164A12159X	163A13759X
	50					164A12169X	163A13769X

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A16569X	163A16159X
	15					164A16579X	163A16169X
	25					164A16589X	163A16179X
	37					164A16599X	163A16189X
	50					164A16609X	163A16199X

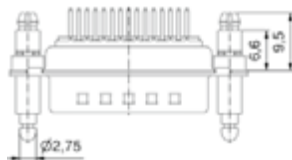
4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A16669X	163A16259X
	15					164A16679X	163A16269X
	25					164A16689X	163A16279X
	37					164A16699X	163A16289X
	50					164A16709X	163A16299X

## D-SUB CONNECTORS Standard

### CONEC SnapLock, Solder pin, straight Precision machined contacts

SnapLock bolt, Clip for PCB 1.6 mm [suitable for CONEC SnapLock hoods]



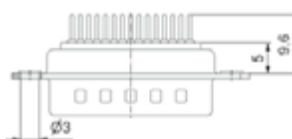
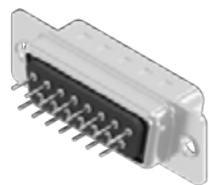
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
09	7.5 (UL) / 5 (CSA VDE)	125	E202784	3	16-002143	16-002093
15					16-002153	16-002103
25					16-002163	16-002113
37					16-002173	16-002123
50					16-002183	16-002133

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles

## D-SUB CONNECTORS Standard

### Solder pin, straight Stamped contacts

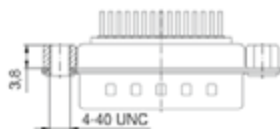
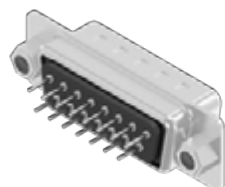
Through-hole Ø 3 mm



No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
09	3	125		3	DLS1XS4AD01X	DLS1XP4AD01X
15					DLS2XS4AD01X	DLS2XP4AD01X
25					DLS3XS4AD01X	DLS3XP4AD01X
37					DLS4XS4AD01X	DLS4XP4AD01X
50					DLS5XS4AD01X	DLS5XP4AD01X

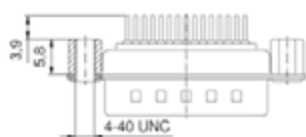
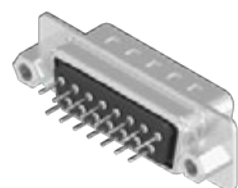
Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

4-40 UNC threaded insert



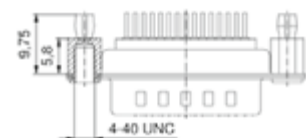
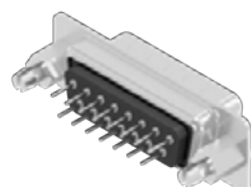
09	3	125		3	DLS1XS4AG06X	DLS1XP4AG06X
15					DLS2XS4AG06X	DLS2XP4AG06X
25					DLS3XS4AG06X	DLS3XP4AG06X
37					DLS4XS4AG06X	DLS4XP4AG06X
50					DLS5XS4AG06X	DLS5XP4AG06X

4-40 UNC threaded rear spacer



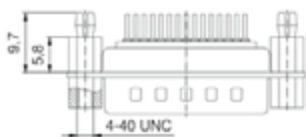
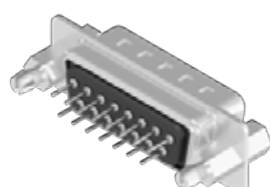
09	3	125		3	DLS1XS4AA37X	DLS1XP4AA37X
15					DLS2XS4AA37X	DLS2XP4AA37X
25					DLS3XS4AA37X	DLS3XP4AA37X
37					DLS4XS4AA37X	DLS4XP4AA37X
50					DLS5XS4AA37X	DLS5XP4AA37X

4-40 UNC threaded rear spacer clip for PCB 1.6 mm



09	3	125		3	DLS1XS4AA35X	DLS1XP4AA35X
15					DLS2XS4AA35X	DLS2XP4AA35X
25					DLS3XS4AA35X	DLS3XP4AA35X
37					DLS4XS4AA35X	DLS4XP4AA35X
50					DLS5XS4AA35X	DLS5XP4AA35X

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

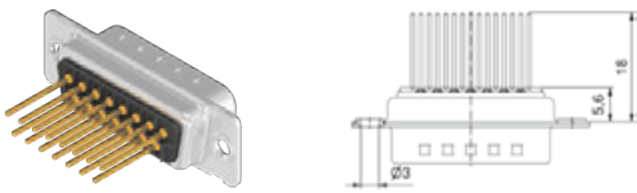


09	3	125		3	DLS1XS4AA39X	DLS1XP4AA39X
15					DLS2XS4AA39X	DLS2XP4AA39X
25					DLS3XS4AA39X	DLS3XP4AA39X
37					DLS4XS4AA39X	DLS4XP4AA39X
50					DLS5XS4AA39X	DLS5XP4AA39X

**D-SUB CONNECTORS**  
Standard

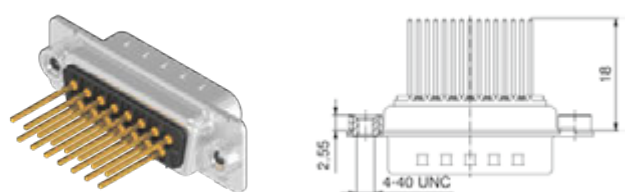
Wire wrap  
Precision machined contacts

Through-hole Ø 3 mm

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A10119X	163A11169X
	15					164A10129X	163A11179X
	25					164A10139X	163A11189X
	37					164A10149X	163A11199X
	50					164A10159X	163A11209X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

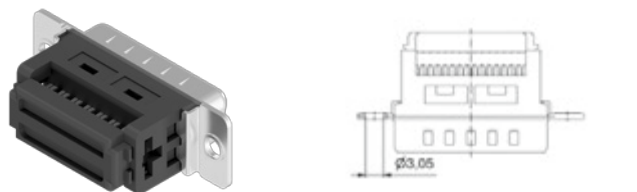
4-40 UNC threaded insert

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A10419X	163A11469X
	15					164A10429X	163A11479X
	25					164A10439X	163A11489X
	37					164A10449X	163A11499X
	50					164A10459X	163A11509X

**D-SUB CONNECTORS**  
Standard

IDC for flat cable  
Stamped contacts, AWG 26-28

Through-hole Ø 3 mm

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
	09	1	125		3	302A10089X	301A10089X
	15					302A10099X	301A10099X
	25					302A10109X	301A10109X
	37					302A10119X	301A10119X

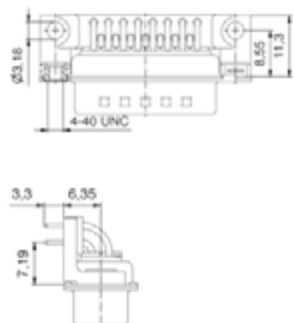
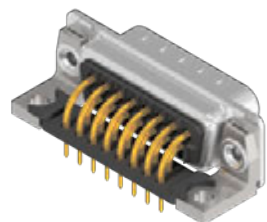
Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles  
Connector includes strain relief

## D-SUB CONNECTORS Standard

Solder pin, angled, .318"/7.19 mm  
Precision machined contacts, metal bracket

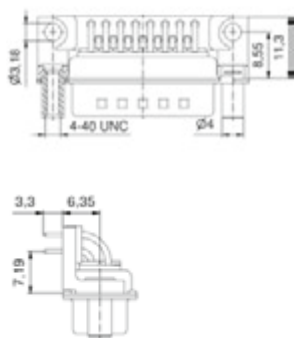
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

### 4-40 UNC threaded insert



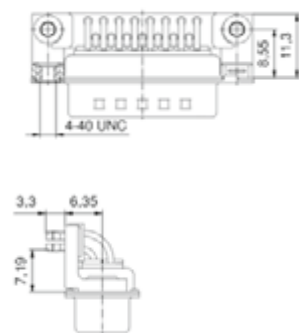
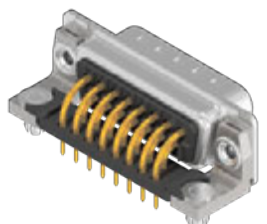
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A11519X	163A13069X
15					164A11529X	163A13079X
25					164A11539X	163A13089X
37					164A11549X	163A13099X
50					164A18969X	163A18549X

### 4-40 UNC front spacer



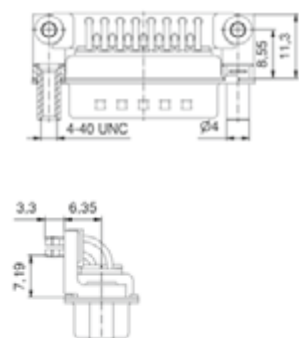
09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A16929X	163A16519X
15					164A16939X	163A16529X
25					164A16949X	163A16539X
37					164A16959X	163A16549X
50					164A19019X	163A18589X

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert



09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A17939X	163A17529X
15					164A17949X	163A17539X
25					164A17959X	163A17549X
37					164A17969X	163A17559X
50					164A18989X	163A18569X

### Clip for PCB 1.6 mm, 4-40 UNC front spacer



09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A19039X	163A18609X
15					164A19049X	163A18619X
25					164A19059X	163A18629X
37					164A19069X	163A18639X
50					164A19079X	163A18649X

## D-SUB CONNECTORS Standard

Solder pin, angled, .318"/7.19 mm  
Precision machined contacts, plastic bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No.	
					Socket contact	Plug contact
09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A18809X	163A18389X
15					164A18819X	163A18399X
25					164A18829X	163A18409X
37					164A18839X	163A18419X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Clip for PCB 1.6 mm, 4-40 UNC front spacer

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No.	
					Socket contact	Plug contact
09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A18889X	163A18469X
15					164A18899X	163A18479X
25					164A18909X	163A18489X
37					164A18919X	163A18499X

## D-SUB CONNECTORS Standard

Solder pin, angled, .318"/8.09 mm  
Stamped contacts, plastic bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No.	
					Socket contact	Plug contact
09	3	125		3	302A11339X	301A11029X
15					302A11349X	301A11039X
25					302A11359X	301A11049X
37					302A11369X	301A11059X

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

Clip for PCB 1.6 mm, 4-40 UNC front spacer

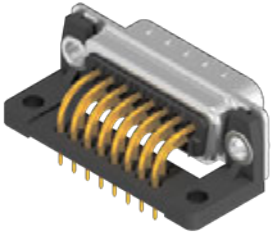
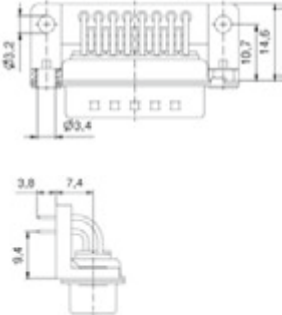
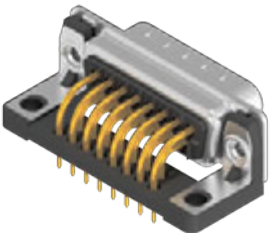
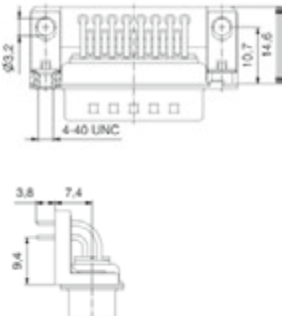
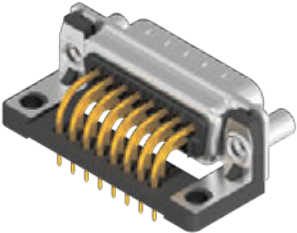
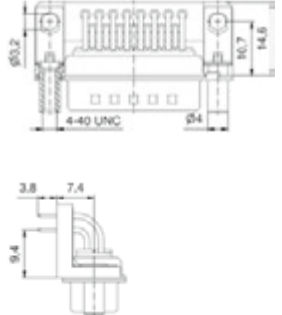
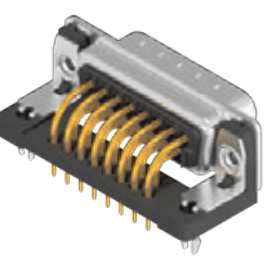
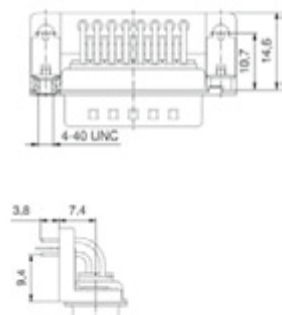
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No.	
					Socket contact	Plug contact
09	3	125		3	302A11249X	301A10939X
15					302A11259X	301A10949X
25					302A11269X	301A10959X
37					302A11279X	301A10969X

## D-SUB CONNECTORS Standard

Solder pin, angled, .370" / 9.4 mm  
Precision machined contacts, plastic bracket

Through-hole Ø 3,4 mm

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A10669X	163A11719X	
	15					164A10679X	163A11729X	
	25					164A10689X	163A11739X	
	37					164A10699X	163A11749X	
	50					164A10709X	163A11759X	
<b>Grounding strap, 4-40 UNC threaded insert</b>								
 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A12329X	163A14119X	
	15					164A12339X	163A14129X	
	25					164A12349X	163A14139X	
	37					164A12359X	163A14149X	
<b>Grounding strap, 4-40 UNC front spacer</b>								
 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A12229X	163A13829X	
	15					164A12239X	163A13839X	
	25					164A12249X	163A13849X	
	37					164A12259X	163A13859X	
<b>Clip for PCB 1.6 mm, 4-40 UNC threaded insert</b>								
 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A12969X	163A14489X	
	15					164A12979X	163A14499X	
	25					164A12989X	163A14509X	
	37					164A12999X	163A14519X	
	50					164A19139X	163A18709X	



**D-SUB CONNECTORS**  
Standard

Solder pin, angled, .370"/9.4 mm  
Precision machined contacts, plastic bracket

Clip for PCB 1.6 mm, 4-40 UNC front spacer

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Image	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A13089X	163A14609X
	15					164A13099X	163A14619X
	25					164A13109X	163A14629X
	37					164A13119X	163A14639X
	50					164A19159X	163A18729X

Solder pin, angled, .370"/9.4 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

Part No. Socket contact Part No. Plug contact

Image	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A10969X	163A12019X
	15					164A10979X	163A12029X
	25					164A10989X	163A12039X
	37					164A10999X	163A12049X
	50					164A18739X	163A18319X

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Image	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A16769X	163A16359X
	15					164A16779X	163A16369X
	25					164A16789X	163A16379X
	37					164A16799X	163A16389X
	50					164A18759X	163A18339X

**D-SUB CONNECTORS**  
Standard

Solder pin, angled, .370"/10.3 mm  
Stamped contacts, plastic bracket

Clip for PCB 1.6 mm, 4-40 UNC front spacer

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

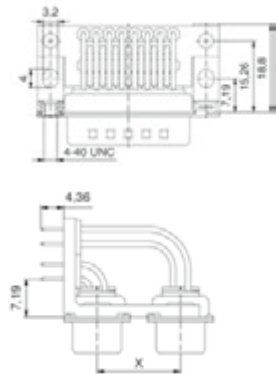
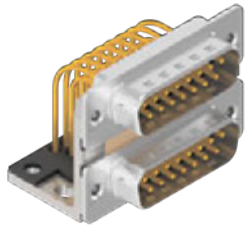
Image	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	3	125		3	302A10779X	301A10679X
	15					302A10789X	301A10689X
	25					302A10799X	301A10699X
	37					302A10809X	301A10709X

## D-SUB CONNECTORS Dual Port

Plug upper - Plug bottom  
Solder pin, angled, precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

### 4-40 UNC threaded insert



No. of poles  
Current rating [A]  
Working voltage [V]  
UL-File  
Quality class  
Connector spacing X = [inches, mm]

09/09  
15/15  
25/25  
37/37  
09/09  
15/15  
25/25  
37/37

75 (UI) / 5 (CSA VDE)

125

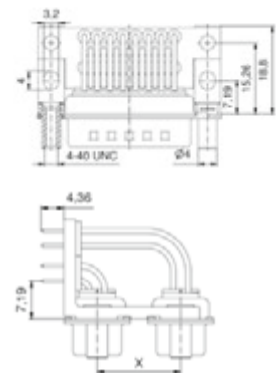
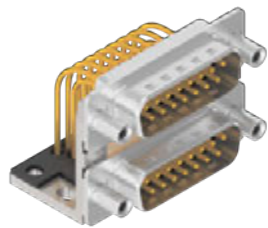
E202784

3

.625  
15.88  
.750  
19.05

Part No.
163A15199X
163A15209X
163A15219X
163A15229X
163A15519X
163A15529X
163A15539X
163A15549X

### 4-40 UNC front spacer



No. of poles  
Current rating [A]  
Working voltage [V]  
UL-File  
Quality class  
Connector spacing X = [inches, mm]

09/09  
15/15  
25/25  
37/37  
09/09  
15/15  
25/25  
37/37

75 (UI) / 5 (CSA VDE)

125

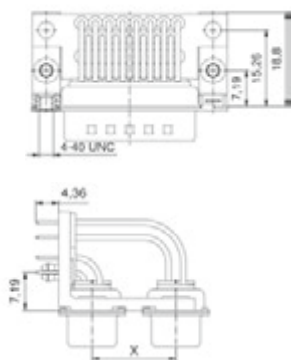
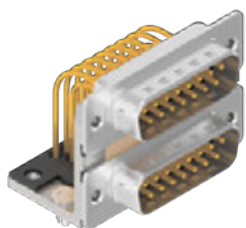
E202784

3

.625  
15.88  
.750  
19.05

163A15359X
163A15369X
163A15379X
163A15389X
163A15679X
163A15689X
163A15699X
163A15709X

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert



No. of poles  
Current rating [A]  
Working voltage [V]  
UL-File  
Quality class  
Connector spacing X = [inches, mm]

09/09  
15/15  
25/25  
37/37  
09/09  
15/15  
25/25  
37/37

75 (UI) / 5 (CSA VDE)

125

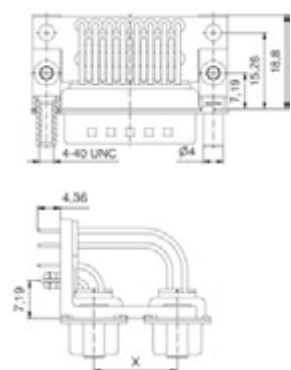
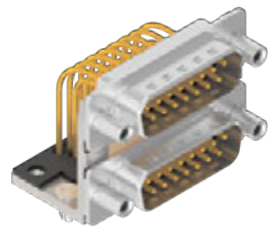
E202784

3

.625  
15.88  
.750  
19.05

163A19969X
163A19979X
163A19989X
163A19999X
163A19489X
163A19499X
163A19509X
163A19519X

### Clip for PCB 1.6 mm, 4-40 UNC front spacer



No. of poles  
Current rating [A]  
Working voltage [V]  
UL-File  
Quality class  
Connector spacing X = [inches, mm]

09/09  
15/15  
25/25  
37/37  
09/09  
25/25  
25/25  
37/37

75 (UI) / 5 (CSA VDE)

125

E202784

3

.625  
15.88  
.750  
19.05

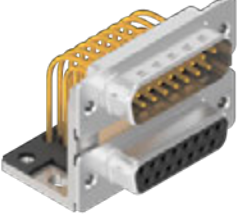
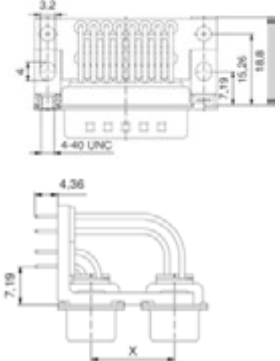
163A19329X
163A19339X
163A19349X
163A19359X
163A19649X
163A19659X
163A19669X
163A19679X

## D-SUB CONNECTORS Dual Port


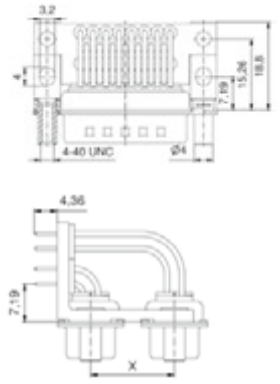
Plug upper - Socket bottom  
Solder pin, angled, precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread


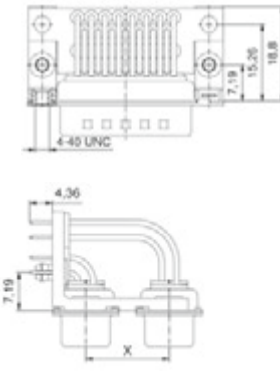
### 4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Connector spacing X = [inches, mm]	Part No.
		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	163A15239X
		15/15						163A15249X
		25/25						163A15259X
		37/37						163A15269X
		09/09					163A15559X	
		15/15					163A15569X	
		25/25					163A15579X	
		37/37					163A15589X	

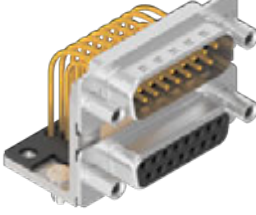
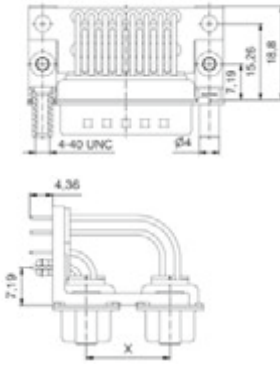
### 4-40 UNC front spacer

		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	163A15399X
		15/15						163A15409X
		25/25						163A15419X
		37/37						163A15429X
		09/09					163A15719X	
		15/15					163A15729X	
		25/25					163A15739X	
		37/37					163A15749X	

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert

		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	163A20009X
		15/15						163A20019X
		25/25						163A20029X
		37/37						163A20039X
		09/09					163A19529X	
		15/15					163A19539X	
		25/25					163A19549X	
		37/37					163A19559X	

### Clip for PCB 1.6 mm, 4-40 UNC front spacer

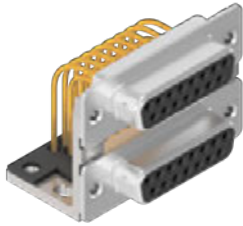
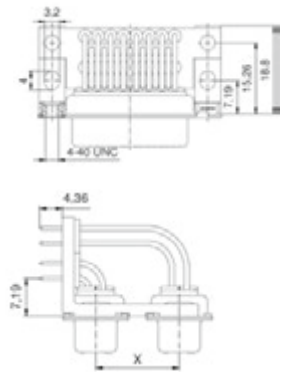
		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	163A19369X
		15/15						163A19379X
		25/25						163A19389X
		37/37						163A19399X
		09/09					163A19689X	
		15/15					163A19699X	
		25/25					163A19709X	
		37/37					163A19719X	

## D-SUB CONNECTORS Dual Port

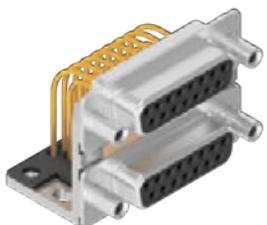
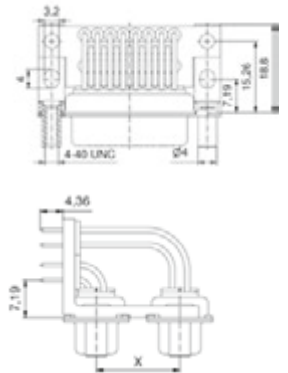
Socket upper - Socket bottom  
Solder pin, angled, precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

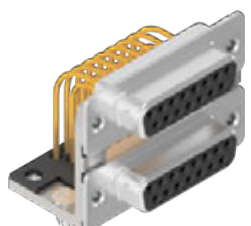
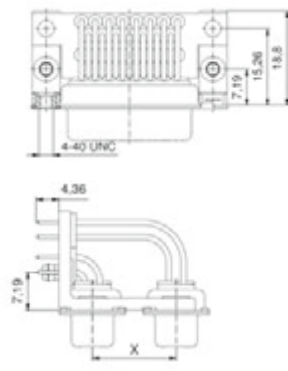
### 4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Connector spacing X = [inches, mm]	Part No.
		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A15609X
		15/15						164A15619X
		25/25						164A15629X
		37/37						164A15639X
		09/09					164A15929X	
		15/15					164A15939X	
		25/25					164A15949X	
		37/37					164A15959X	

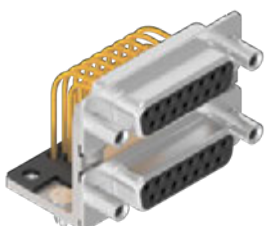
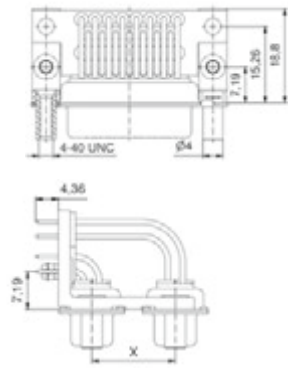
### 4-40 UNC front spacer

		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A15769X
		15/15						164A15779X
		25/25						164A15789X
		37/37						164A15799X
		09/09					164A16089X	
		15/15					164A16099X	
		25/25					164A16109X	
		37/37					164A16119X	

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert

		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A20409X
		15/15						164A20419X
		25/25						164A20429X
		37/37						164A20439X
		09/09					164A19919X	
		15/15					164A19929X	
		25/25					164A19939X	
		37/37					164A19949X	

### Clip for PCB 1.6 mm, 4-40 UNC front spacer

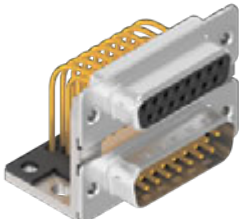
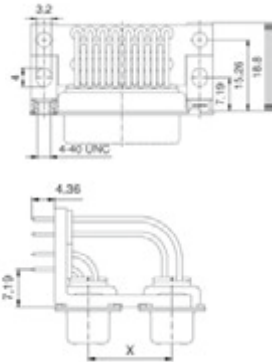
		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A19759X
		15/15						164A19769X
		25/25						164A19779X
		37/37						164A19789X
		09/09					164A20079X	
		15/15					164A20089X	
		25/25					164A20099X	
		37/37					164A20109X	

## D-SUB CONNECTORS Dual Port

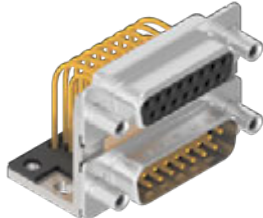
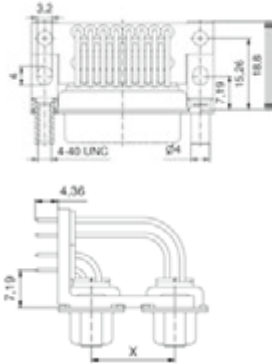
Socket upper - Plug bottom  
Solder pin, angled, precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

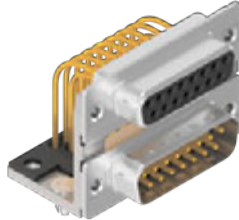
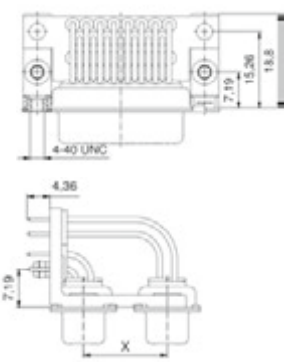
### 4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Connector spacing X = [inches, mm]	Part No.
		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A15649X
		15/15						164A15659X
		25/25						164A15669X
		37/37						164A15679X
		09/09					164A15969X	
		15/15					164A15979X	
		25/25					164A15989X	
		37/37					164A15999X	


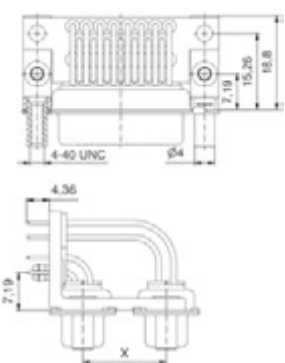
### 4-40 UNC front spacer

		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A15809X
		15/15						164A15819X
		25/25						164A15829X
		37/37						164A15839X
		09/09					164A16129X	
		15/15					164A16139X	
		25/25					164A16149X	
		37/37					164A16159X	

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert

		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A20449X
		15/15						164A20459X
		25/25						164A20469X
		37/37						164A20479X
		09/09					164A19959X	
		15/15					164A19969X	
		25/25					164A19979X	
		37/37					164A19989X	

### Clip for PCB 1.6 mm, 4-40 UNC front spacer

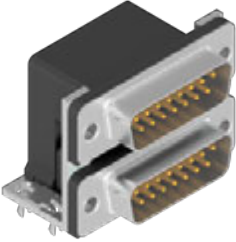
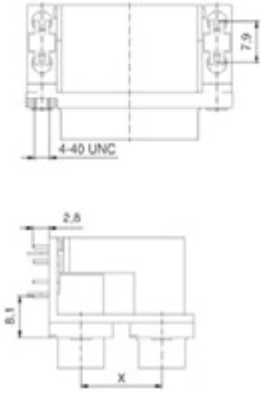
		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A19799X
		15/15						164A19809X
		25/25						164A19819X
		09/09						164A20119X
		15/15					164A20129X	
		25/25					164A20139X	
		37/37					164A20149X	

**D-SUB CONNECTORS**  
Dual Port

Plug upper - Plug bottom  
Solder pin, angled, stamped contacts

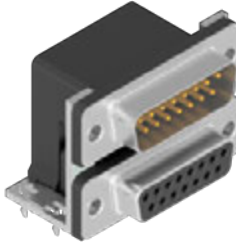
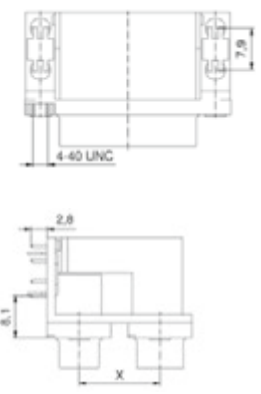
Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Connector spacing X = [inches, mm]	Part No.				
		09/09	3	125		3	.625 15.88	DLS1PP5AN21X				
		15/15						DLS2PP5AN21X				
		25/25						DLS3PP5AN21X				
		37/37						DLS4PP5AN21X				
		09/09									.750 19.05	DLS1PP5AN23X
		15/15					DLS2PP5AN23X					
		25/25					DLS3PP5AN23X					
		37/37					DLS4PP5AN23X					

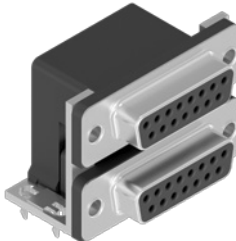
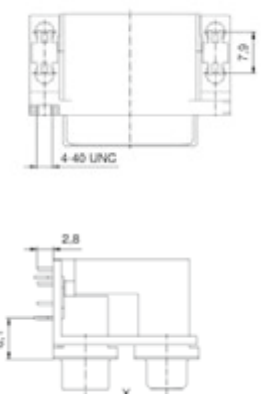
Plug upper - Socket bottom  
Solder pin, angled, stamped contacts

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

		09/09	3	125		3	.625 15.88	DLS1PS5AN21X			
		15/15						DLS2PS5AN21X			
		25/25						DLS3PS5AN21X			
		37/37						DLS4PS5AN21X			
		09/09								.750 19.05	DLS1PS5AN23X
		15/15					DLS2PS5AN23X				
		25/25					DLS3PS5AN23X				
		37/37					DLS4PS5AN23X				

Socket upper - Socket bottom  
Solder pin, angled, stamped contacts

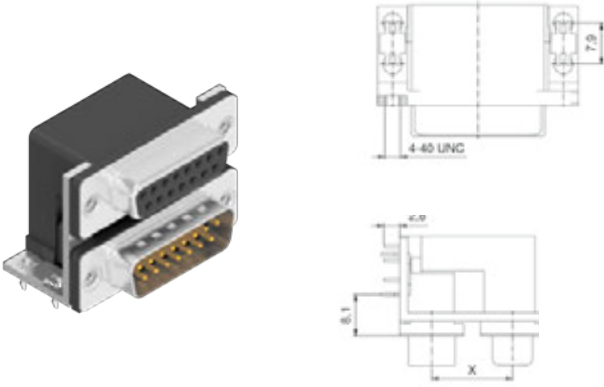
Clip for PCB 1.6 mm, 4-40 UNC threaded insert

		09/09	3	125		3	.625 15.88	DLS1SS5AN21X			
		15/15						DLS2SS5AN21X			
		25/25						DLS3SS5AN21X			
		37/37						DLS4SS5AN21X			
		09/09								.750 19.05	DLS1SS5AN23X
		15/15					DLS2SS5AN23X				
		25/25					DLS3SS5AN23X				
		37/37					DLS4SS5AN23X				

## D-SUB CONNECTORS Dual Port

Socket upper - Plug bottom  
Solder pin, angled, stamped contacts

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

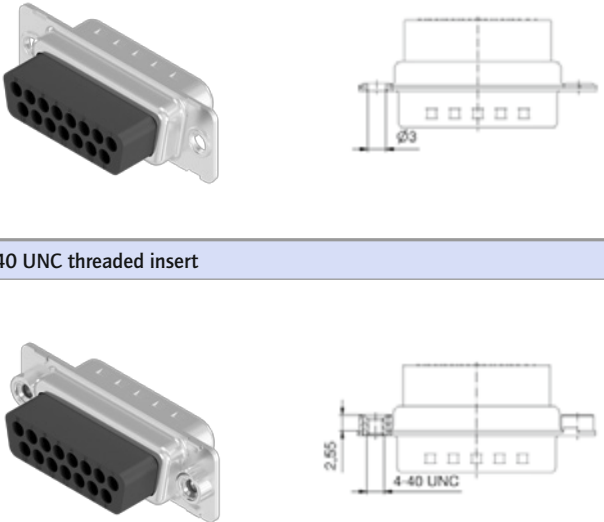
	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Connector spacing X = [inches, mm]	Part No.	
							Socket contact	Plug contact
	09/09	3	125		3	.625 15.88		DLS1SP5AN21X
	15/15						DLS2SP5AN21X	
	25/25						DLS3SP5AN21X	
	37/37						DLS4SP5AN21X	
	09/09					.750 19.05	DLS1SP5AN23X	
	15/15						DLS2SP5AN23X	
	25/25						DLS3SP5AN23X	
	37/37						DLS4SP5AN23X	

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

## D-SUB CONNECTORS Standard

Crimp body (without contacts)  
For AWG 24-20 and AWG 28-24 crimp contacts

Through-hole  $\varnothing$  3 mm

	No. of poles	Working voltage [V]	UL-File	Part No.	
				Socket contact	Plug contact
	09	125	E202784	164X11769X	163X10019X
	15			164X11779X	163X10029X
	25			164X11789X	163X10039X
	37			164X11799X	163X10049X
	50			164X11809X	163X10059X
	09	125	E202784	DSS1XSXXG04X	DSS1XPXXG04X
	15			DSS2XSXXG04X	DSS2XPXXG04X
	25			DSS3XSXXG04X	DSS3XPXXG04X
	37			DSS4XSXXG04X	DSS4XPXXG04X
	50			DSS5XSXXG04X	DSS5XPXXG04X

Shell: Steel tin plated  
On request:  
• Brass tin plated or stainless steel  
• M3 thread

## D-SUB CONNECTORS Standard


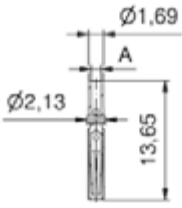
### Crimp-contacts, precision machined

Quality class 3 (A) = 50 mating cycles  
 Quality class 1 (C) = 500 mating cycles  
 On request:  
 • Female/Male contact quality class 1  
 (Closed entry version only in quality class 3)

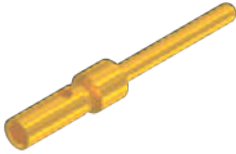
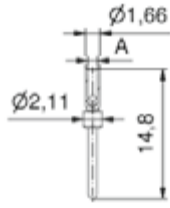
#### Female contact

Quantity [pcs]	AWG	Current rating [A]	Crimp inner $\varnothing$ A = [mm]	Quality class	Loose contacts	Part No.
500	24-20	7.5	1,12	3	✓	162A18709X
100						16-001653
500	28-24	5	0,64	3	✓	162A18719X
100						16-001663

#### Female contact closed entry

 	24-20	7.5	1,12	1	✓	132C15019X
	100					
	28-24	5	0,6			

#### Male contact

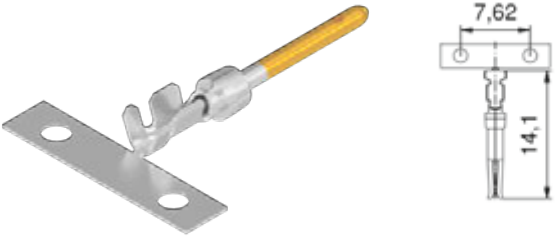



 	500	24-20	7.5	1,12	3	✓	161A18299X
	100						16-001673
500	28-24	5	0,64				161A18309X
100							16-001683



## D-SUB CONNECTORS Standard

### Crimp-contacts, stamped


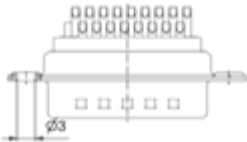
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles

Female contact, AWG 24-20		Quantity [pcs]	Current rating [A]	Loose contacts	Small reel wheeled left	Big reel wheeled left	Big reel wheeled right	Quality class	Part No.
	500	7.5	✓				3	162A11849X	
			✓						162A11839X
	10000				✓				162A11819X
						✓			162A11829X
Male contact, AWG 24-20									
	500	7.5	✓				3	161A13399X	
			✓						161A13389X
	10000				✓				161A13369X
						✓			161A13379X
Female contact, AWG 28-24									
	500	5	✓				3	162A11889X	
			✓						162A11879X
	10000				✓				162A11859X
						✓			162A11869X
Male contact, AWG 28-24									
	500	5	✓				3	161A13439X	
			✓						161A13429X
	10000				✓				161A13409X
						✓			161A13419X

## D-SUB CONNECTORS High Density


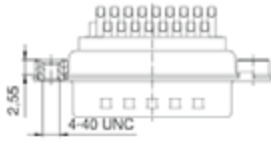
Solder cup  
Precision machined contacts, AWG 22

Through-hole Ø 3 mm

 	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL VDE)/2.5 (CSA)	60	E202784	3	164A17009X	163A16599X
	26					164A17019X	163A16609X
	44					164A17029X	163A16619X
	62					164A17039X	163A16629X
	78					164A17049X	163A16639X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread


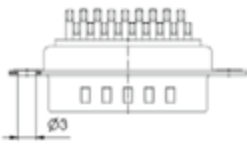
4-40 UNC threaded insert

 	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL VDE)/2.5 (CSA)	60	E202784	3	164A17059X	163A16649X
	26					164A17069X	163A16659X
	44					164A17079X	163A16669X
	62					164A17089X	163A16679X
	78					164A17099X	163A16689X

## D-SUB CONNECTORS High Density

Solder cup  
Stamped contacts, AWG 22

Through-hole Ø 3 mm

 	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3	60		3	302A10129X	301A10129X
	26					302A10139X	301A10139X
	44					302A10149X	301A10149X
	62					302A10159X	301A10159X
	78					302A11329X	301A11019X


Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

## D-SUB CONNECTORS High Density

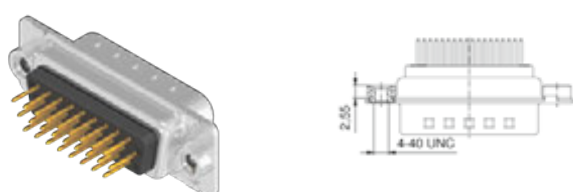
Solder pin, straight  
Precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

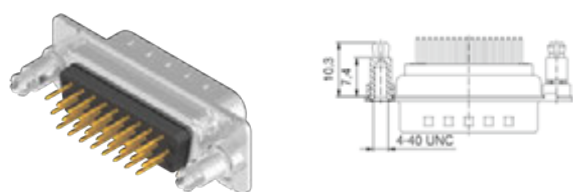
Through-hole Ø 3 mm

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A17159X	163A16749X
	26					164A17169X	163A16759X
	44					164A17179X	163A16769X
	62					164A17189X	163A16779X
	78					164A17199X	163A16789X

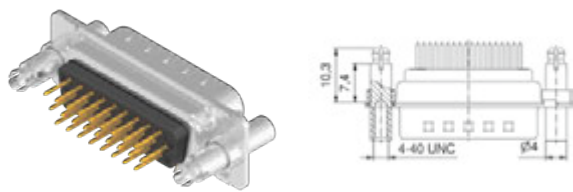
4-40 UNC threaded insert

	15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A17209X	163A16799X
	26					164A17219X	163A16809X
	44					164A17229X	163A16819X
	62					164A17239X	163A16829X
	78					164A17249X	163A16839X

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

	15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A17359X	163A16949X
	26					164A17369X	163A16959X
	44					164A17379X	163A16969X
	62					164A17389X	163A16979X
	78					164A17399X	163A16989X

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

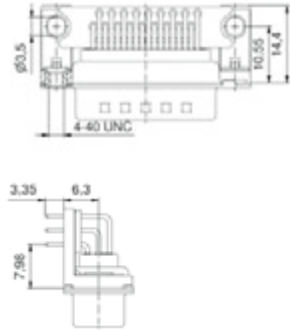
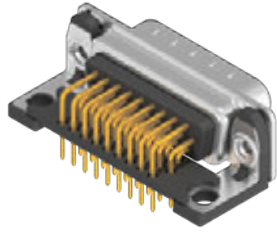
	15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A17459X	163A17049X
	26					164A17469X	163A17059X
	44					164A17479X	163A17069X
	62					164A17489X	163A17079X
	78					164A17499X	163A17089X

## D-SUB CONNECTORS High Density

Solder pin, angled, .350" / 7.98 mm  
Precision machined contacts, plastic bracket

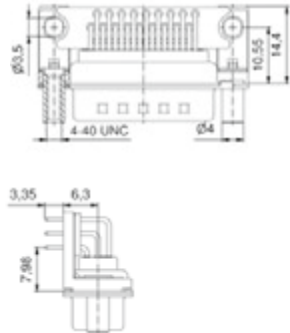
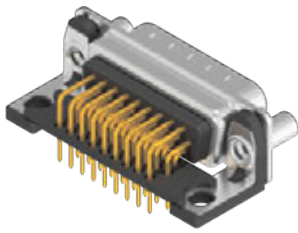
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

### Grounding strap, 4-40 UNC threaded insert



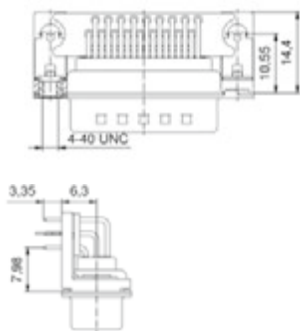
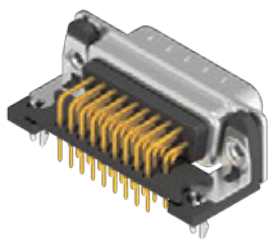
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A18019X	163A17609X
26					164A18029X	163A17619X
44					164A18039X	163A17629X
62					164A18049X	163A17639X

### Grounding strap, 4-40 UNC front spacer



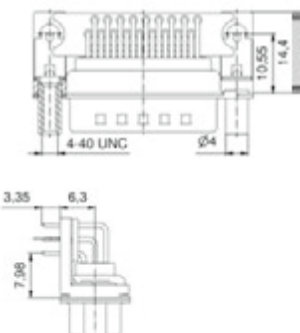
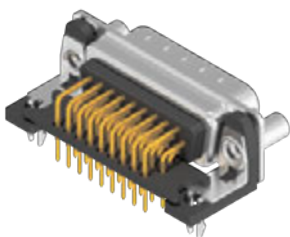
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A18099X	163A17689X
26					164A18109X	163A17699X
44					164A18119X	163A17709X
62					164A18129X	163A17719X

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert



15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A20929X	163A20489X
26					164A20939X	163A20499X
44					164A20949X	163A20509X
62					164A20959X	163A20519X

### Clip for PCB 1.6 mm, 4-40 UNC front spacer



15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A21009X	163A20569X
26					164A21019X	163A20579X
44					164A21029X	163A20589X
62					164A21039X	163A20599X

**D-SUB CONNECTORS**  
High Density

Solder pin, angled, .350" / 7.98 mm  
Precision machined contacts, metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A18179X	163A17769X
26					164A18189X	163A17779X
44					164A18199X	163A17789X
62					164A18209X	163A17799X
78					164A18629X	163A18219X

Clip for PCB 1.6 mm, 4-40 UNC front spacer

15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A18259X	163A17849X
26					164A18269X	163A17859X
44					164A18279X	163A17869X
62					164A18289X	163A17879X
78					164A18649X	163A18239X


**D-SUB CONNECTORS**  
High Density




Solder pin, angled, .350" / 8.78 mm  
Precision machined contacts, plastic bracket

Clip for PCB 1.6 mm, 4-40 UNC front spacer

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
15	3	60		3	302A10869X	301A10869X
26					302A10879X	301A10879X
44					302A10889X	301A10889X
62					302A10899X	301A10899X
78					302A11629X	301A11369X

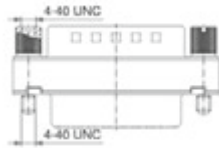
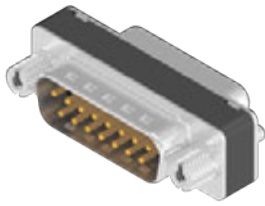
D-SUB CONNECTORS High Density		No. of poles	Working voltage [V]	UL-File	Shell: Steel tin plated On request: • Brass tin plated or stainless steel	
Crimp body (without contacts) For AWG 28-22 crimp contacts					Part No. Socket contact	Part No. Plug contact
Through-hole Ø 3 mm						
	15	60	E202784	164X11949X	163X10169X	
	26			164X11959X	163X10179X	
	44			164X11969X	163X10189X	
	62			164X11979X	163X10199X	
	78			164X11989X	163X10209X	

D-SUB CONNECTORS High Density		Quantity [pcs]	Current rating [A]	Loose contacts	Quality class	Quality class 3 (A) = 50 mating cycles On request: • Quality class 1 (C) = 500 mating cycles	
Crimp-contacts, precision machined						Part No.	
Female contact, AWG 28-22							
	500	3	✓	3	162A18419X		
Female contact closed entry, AWG 28-22							
	500	3	✓	3	16-000693		
Male contact, AWG 28-22							
	500	3	✓	3	161A18009X		

## D-SUB CONNECTORS Standard

Interface adapter, connector saver  
Plug connector - socket connector

4-40 UNC threaded lock



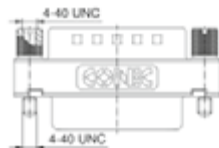
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No.
09	7.5 (UL), 5 (CSA, VDE)	125	E202784	3	163A50009X
15					163A50019X
25					163A50029X
37					163A50039X
50					163A50049X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## D-SUB CONNECTORS High Density

Interface adapter, connector saver  
Plug connector - socket connector

4-40 UNC threaded lock



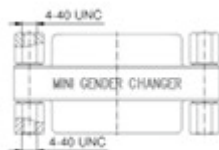
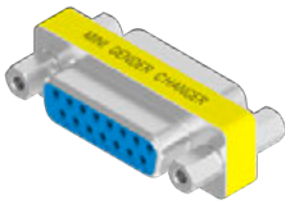
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No.
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A03399X
26					164A03919X
44					164A03929X
62					164A03939X
78					DAH5XAAAR04X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## D-SUB CONNECTORS Standard

Interface adapter, gender changer  
Socket connector - socket connector

4-40 UNC threaded lock



No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No.
09	3	125		3	320X12519X
15					320X12539X
25					320X10559X
37					320X12559X

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

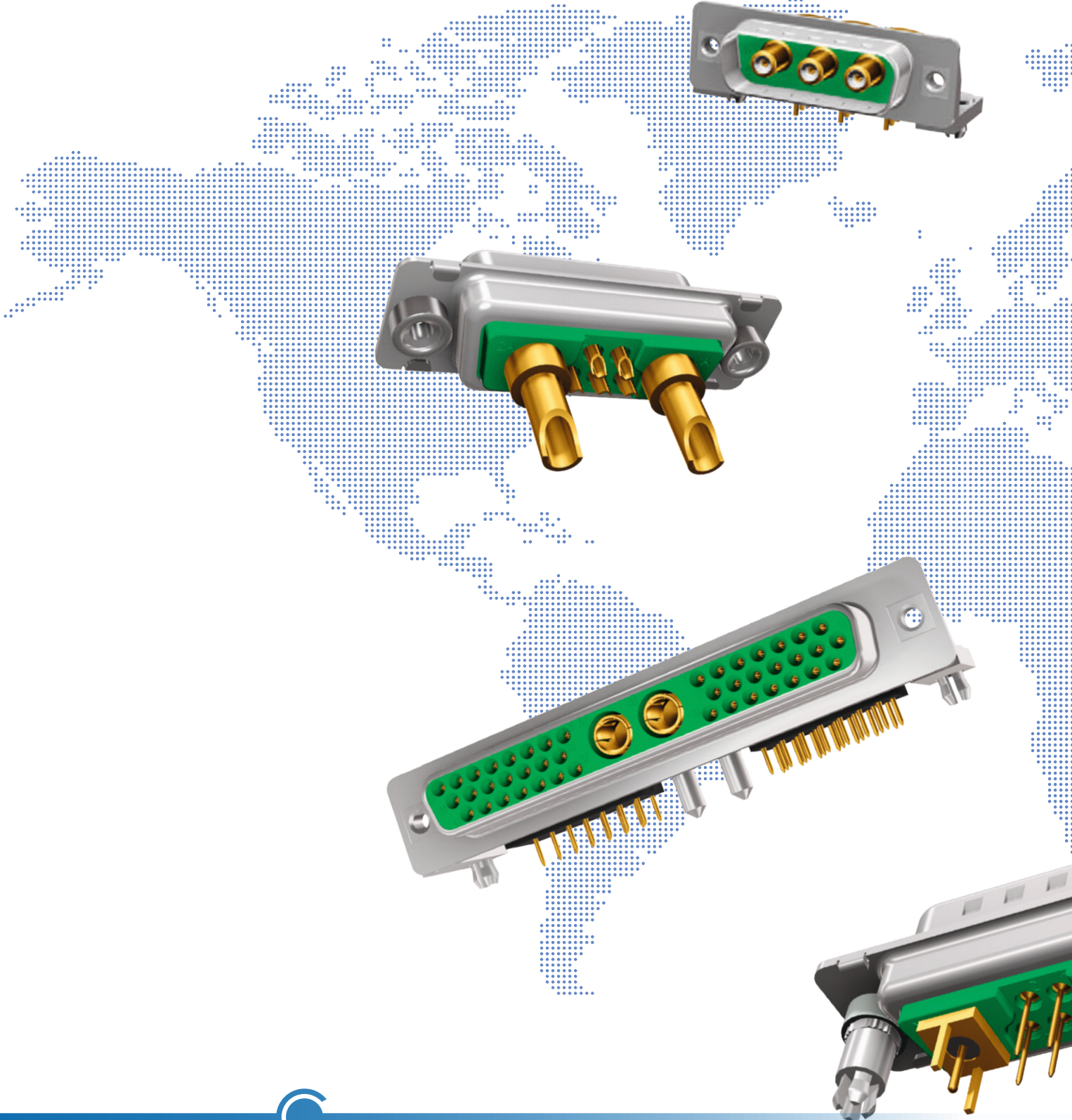
Interface adapter, gender changer  
Plug connector - plug connector

4-40 UNC threaded lock

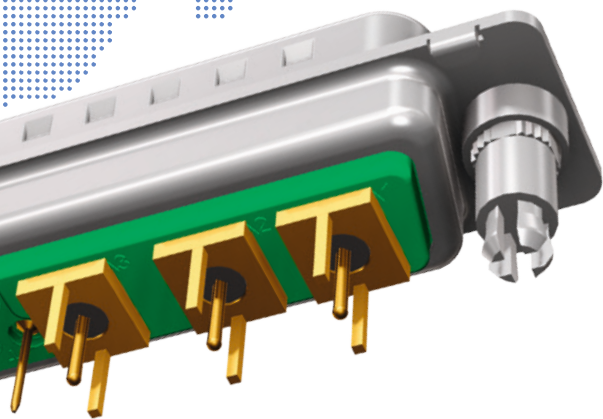
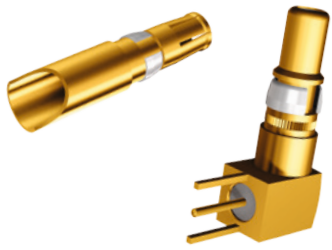


No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No.
09	3	125		3	320X12509X
15					320X12529X
25					320X10549X
37					320X12549X

# COMBINATION D-SUB CONNECTORS







## COMBINATION D-SUB CONNECTORS

### Part Number Creator Standard

3 003W3 S X X 6 1 A 1 O X

#### Shell type

- 3 = Steel tin plated
- 1 = Brass tin plated\*
- A = Stainless steel\* \*on request

#### Shell size and design

- 1 = 5W1, 2W2C
  - 2 = 3W3, 7W2, 11W1, 3W3C
  - 3 = 5W5, 9W4, 13W3, 17W2, 21W1
  - 4 = 8W8, 13W6, 17W5, 21WA4, 25W3, 27W2
  - 5 = 24W7, 36W4, 43W2, 47W1
- Empty positions add "0"= 003W3

#### Contact type

- P = Plug connector
- S = Socket connector

#### Surface/Quality class for SIGNAL contacts

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles\*
- C = Quality class 1 = 500 mating cycles
- J = Special application = > 500 mating cycles (on request)\*
- X = Crimp and 3W3, 5W5, 8W8, 2W2C, 3W3C (no contacts are supplied with the connector) \*on request

#### Termination only for SIGNAL contacts

- K = Crimp without contacts
- M = Solder cup
- N = Wire wrap, .500"/12.7 mm
- P = Press fit
- R = Solder pin, straight, .220"/5.6 mm
- T = Solder pin, angled, .280" (3.18)"/7.19 mm
- U = Solder pin, angled, .370"/9.40 mm
- X = 3W3, 5W5, 8W8, 2W2C, 3W3C

#### Termination for HIGH POWER- or COAXIAL contacts

##### Quality class 3/Quality class 1

- 61/41 = Solder cup 10 A
- 62/42 = Solder cup 20 A
- 63/43 = Solder cup 30 A
- 64/44 = Solder cup 40 A
- 68/48 = Solder pin, straight 20 A, D = .077"/1.95 mm
- 69/49 = Solder pin, straight 20 A, D = .102"/2.60 mm
- 70/50 = Solder pin, straight 20 A, D = .110"/2.85 mm
- 71/51 = Solder pin, straight 30 A, D = .130"/3.18 mm
- 72/52 = Solder pin, straight 40 A, D = .150"/3.75 mm
- 59/55 = Solder pin, angled 15 A
- 73/56 = Solder pin, angled 20 A
- 74/57 = Solder pin, angled 30 A
- 75/58 = Solder pin, angled 40 A
- 77/60 = Solder pin, angled 40 A
- 81/66 = Solder pin, angled 20 A

##### Quality class 3/Quality class 1

- 82/67 = Solder pin, angled 30 A
- 85/65 = Solder pin, angled 30 A
- G7/76 = 3 Solder pins Straight 50 Ω
- G8/86 = 3 Solder pins Straight 75 Ω
- G9/78 = 3 Solder pins angled 50 Ω
- H1/79 = 3 Solder pins angled 50 Ω
- H2/88 = 3 Solder pins angled 75 Ω
- H3/89 = 3 Solder pins angled 75 Ω
- H4/80 = 5 Solder pins angled 50 Ω
- H5/90 = 5 Solder pins angled 75 Ω
- 91 = Screw termination 20 A
  - /P1 = press fit 30 A
  - /P2 = press fit 30 A
  - /P4 = press fit 30 A
- 99 = no high power, coax or crimp contacts loaded

#### Mounting style

- A1 = Riveted
- A3 = 4-40 UNC threaded insert
- A5 = 4-40 UNC threaded rear spacer
- A8 = Threaded rear spacer for 4-40 UNC press fit
- C2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- E4 = 4-40 UNC threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- E6 = 4-40 UNC threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- F2 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- F4 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- F6 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- G2 = Metal bracket, 4-40 UNC threaded insert for .370"/9.40 mm
- G4 = Metal bracket, 4-40 UNC threaded insert and clip for .370"/9.40 mm
- H2 = Metal bracket, 4-40 UNC threaded lock for .370"/9.40 mm
- H4 = Metal bracket, 4-40 UNC threaded lock and clip for .370"/9.40 mm
- N2 = Metal bracket, 4-40 UNC threaded insert for .280"/7.19 mm
- N4 = Metal bracket, 4-40 UNC threaded insert and clip for .280"/7.19 mm
- P2 = Metal bracket, 4-40 UNC threaded lock for .280"/7.19 mm
- P4 = Metal bracket, 4-40 UNC threaded lock and clip for .280"/7.19 mm
- W2 = Threaded rear spacer with 4-40 UNC press in pin

OX = Standard

# COMBINATION D-SUB CONNECTORS

## Part Number Creator High Density

**3 H19W1 S C M 4 1 A 1 O X**

### Shell type

- 3 = Steel tin plated
- 1 = Brass tin plated\*
- A = Shell stainless steel\* \*on request

### Shell size and design

- 2 = 19W1
- 3 = 15W4
- 4 = 45W2 H = High Density

### Contact type

- P = Plug connector
- S = Socket connector

### Quality class for SIGNAL contacts

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles\*
- C = Quality class 1 = 500 mating cycles
- J = Special application = > 500 mating cycles\* \*on request

### Termination only for SIGNAL contacts

- M = Solder cup
- P = Press-fit\*
- R = Solder pin, straight
- T = Solder pin, angled .350"/7.98 mm
- W = Solder pin, angled .450"/11.43 mm\* \*on request

### Termination for HIGH POWER- or COAXIAL contacts

#### Quality class 3/Quality class 1

- 61/41 = Solder cup 10 A
- 62/42 = Solder cup 20 A
- 63/43 = Solder cup 30 A
- 64/44 = Solder cup 40 A
- 68/48 = Solder pin, straight 20 A, D = .077"/1.95 mm
- 69/49 = Solder pin, straight 20 A, D = .102"/2.60 mm
- 70/50 = Solder pin, straight 20 A, D = .110"/2.85 mm
- 71/51 = Solder pin, straight 30 A, D = .130"/3.18 mm
- 72/52 = Solder pin, straight 40 A, D = .150"/3.75 mm
- 59/55 = Solder pin, angled 15 A
- 73/56 = Solder pin, angled 20 A
- 74/57 = Solder pin, angled 30 A
- 75/58 = Solder pin, angled 40 A

#### Quality class 3/Quality class 1

- G7/76 = 3 Solder pins Straight 50 Ω
- G9/78 = 3 Solder pins angled 50 Ω
- H4/80 = 5 Solder pins angled 50 Ω
- G8/86 = 3 Solder pins Straight 75 Ω
- H2/88 = 3 Solder pins angled 75 Ω
- H5/90 = 5 Solder pins angled 75 Ω
- 91 = Screw termination 20 A

#### Quality class 1

- P1 = press fit 30 A
- P2 = press fit 30 A
- P4 = press fit 30 A
- 99 = no high power, coax or crimp contacts loaded

### Mounting style

- A1 = Riveted
- A3 = 4-40 UNC threaded insert
- A5 = 4-40 UNC threaded rear spacer
- A8 = Threaded rear spacer for 4-40 UNC press fit
- E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- E4 = 4-40 UNC threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- E6 = 4-40 UNC threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- F2 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- F4 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- F6 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- G6 = Metal bracket, 4-40 UNC threaded insert for .350"/7.98 mm
- G8 = Metal bracket, 4-40 UNC threaded insert and Clip for .350"/7.98 mm
- H6 = Metal bracket, 4-40 UNC threaded lock for .350"/7.98 mm
- H8 = Metal bracket, 4-40 UNC threaded lock and Clip for .350"/7.98 mm
- W2 = Threaded rear spacer with 4-40 UNC press in pin

- OX = Standard

## COMBINATION D-SUB CONNECTORS

### Product specification Standard

Basic material	Connector with signal contacts	Coaxial contacts	High power contacts	High voltage contacts
Contact	Copper alloy			
Contact plating	Gold over nickel			
Insulator (Connector) green standard/ black crimp	PBT GF UL 94 V-0			
Insulator (Contacts)		PTFE/PBTP/PI		PTFE
Shell	Steel tin plated (on request brass tin plated or stainless steel)			
Retaining clip	Copper alloy			
Technical Data				
Test voltage	1000 V, 50 Hz, 1 min.	750 V, 50 Hz, 1 min.	1000 V, 50 Hz, 1 min.	3.5 kV, 50 Hz, 1 min.
Working voltage	250 V AC/DC	250 V AC/DC	250 V AC/DC	max. 2.8 kV
Current rating	7.5 A (UL) / 5 A (CSA, VDE)	2 A	10 - 40 A (UL)	1.5 A
Resistance between mated contacts	max. 10 mΩ	max. 2.7 mΩ	max. 1 mΩ	max. 2.7 mΩ
Insulation resistance	≥ 5 GΩ	≥ 10 GΩ	≥ 5 GΩ	≥ 2 x 10 <sup>7</sup> MΩ
Characteristic impedance		50/75 Ω		
Frequency range		0-2 GHz		
VSWR-value according MIL-C-39012		≤ 1.2 @ 1.2 GHz ≤ 1.3 @ 1.5 GHz ≤ 1,5 @ 2.0 GHz		
Operating temperature	- 55 °C to + 125 °C			
Insertion force per contact	3.4 N	7 N	7 N	5 N
Extraction force per contact	0.2 N	7 N	approx. 5 N	approx. 2.5 N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles			

Technical specifications are subject to change without notice.

## COMBINATION D-SUB CONNECTORS

### Product specification High Density

Basic material	Connector with signal contacts	Coaxial contacts	High power contacts	High voltage contacts
Contact	Copper alloy			
Contact plating	Gold over nickel			
Insulator (Connector) green standard/ black crimp	PBT GF UL 94 V-0			
Insulator (Contacts)		PTFE/PBTP/PI		PTFE
Shell	Steel tin plated (on request brass tin plated or stainless steel)			
Retaining clip		Copper alloy		
Technical Data				
Test voltage	1000 V, 50 Hz, 1 min.	750 V, 50 Hz, 1 min.	1000 V, 50 Hz, 1 min.	3.5 kV, 50 Hz, 1 min.
Working voltage	60 V AC/DC	250 V AC/DC	250 V AC/DC	max. 2.8 kV
Current rating	3 A (UL, VDE) / 2.5 A (CSA)	2 A	10 - 40 A (UL)	1.5 A
Resistance between mated contacts	max. 10 mΩ	max. 2.7 mΩ	max. 1 mΩ	max. 2.7 mΩ
Insulation resistance	≥ 5 GΩ	≥ 10 GΩ	≥ 5 GΩ	≥ 2 x 10 <sup>7</sup> MΩ
Characteristic impedance		50/75 Ω		
Frequency range		0-2 GHz		
VSWR-value according MIL-C-39012		≤ 1,2 @ 1.2 GHz ≤ 1.3 @ 1.5 GHz ≤ 1.5 @ 2.0 GHz		
Operating temperature	- 55 °C to + 125 °C			
Insertion force per contact	3.4 N	7 N	7 N	5 N
Extraction force per contact	0.2 N	7 N	approx. 5 N	approx. 2.5 N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles			

Technical specifications are subject to change without notice.

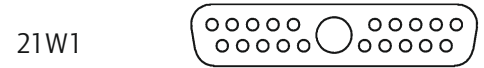
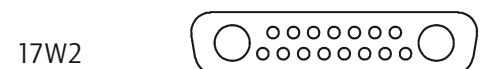
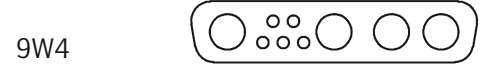
## COMBINATION D-SUB CONNECTORS

### Contact arrangements Mating side of socket connector

Shell size 1

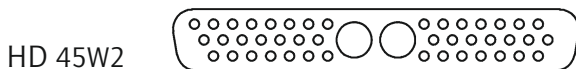
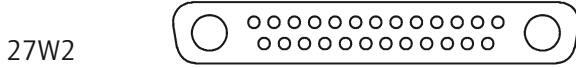
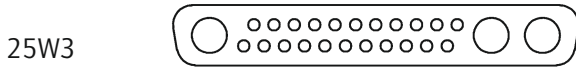
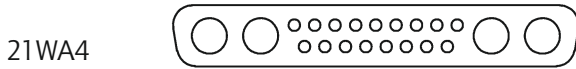
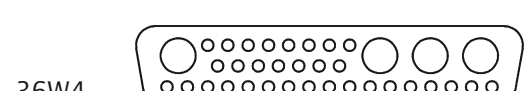
Shell size 2

Shell size 3



Shell size 4

Shell size 5

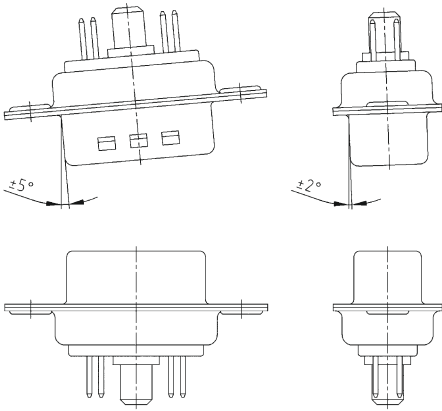


Connectors 3W3, 5W5 and 8W8 with female insulators: Socket contacts are fingerprobe safe according to UL 1950 and CSA 22.2.950.

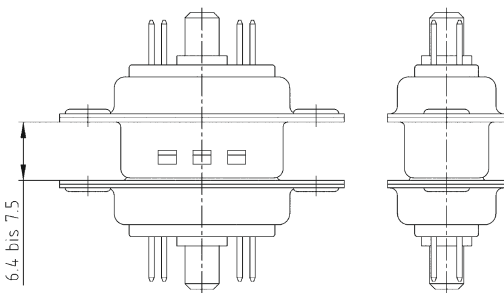
# COMBINATION D-SUB CONNECTORS

## Mating conditions

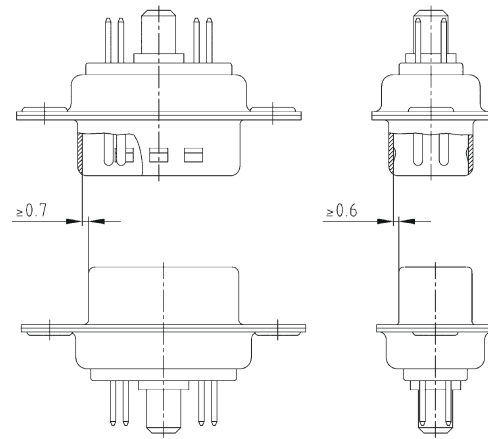
### Max. tilt angle for connector mating



### Range for safe contact

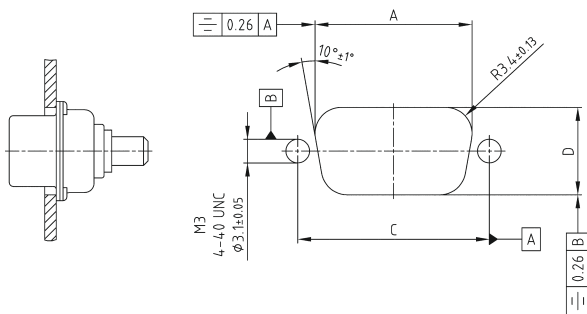


### Lock-in range

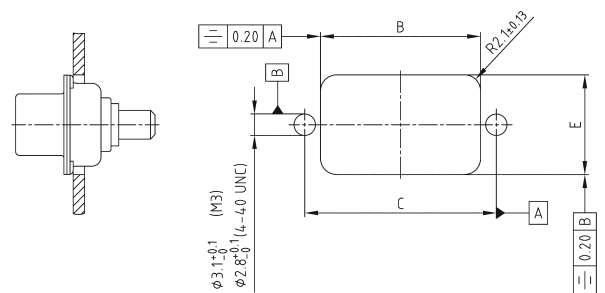


## Panel cut-out

### Back panel mounting



### Front panel mounting



Shell size	A ± 0.1	B ± 0.1	C ± 0.1	D ± 0.1	E ± 0.1
1	20.50	20.90	25.00	11.40	13.00
2	28.80	29.20	33.30	11.40	13.00
3	42.50	42.90	47.04	11.40	13.00
4	59.10	59.40	63.50	11.40	13.00
5	56.30	57.00	61.10	14.10	15.80

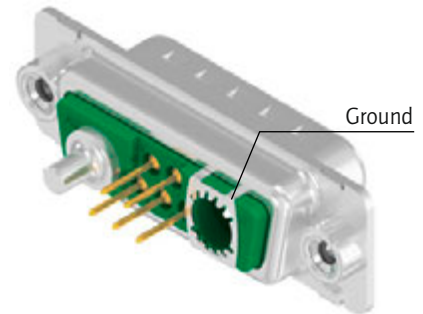
Technical specifications are subject to change without notice.

## COMBINATION D-SUB CONNECTORS

### Accessories

#### Grounding for coaxial contacts

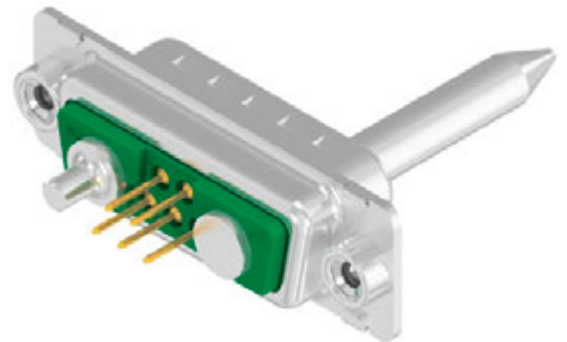
To optimize a perfect ground connection from the coaxial contact (outer conductor) to the metal shell. (Factory installed).



#### Guide post

For safe blind mating of male and female connectors under cramped conditions. The corresponding contact positions in the mating connector have to remain empty to allow these guide posts to be admitted when mating the connectors.

**Part Number**  
**Guide post**      160X11279X



#### Hole plug

The hole plugs can be mounted from the mating side of male and female connectors to close unused contact positions.

**Material:** PBT GF UL 94 V-0  
**Colour:** black

**Part Number**  
**Hole plug**      160X10939X






## COMBINATION D-SUB CONNECTORS With signal contacts


Solder cup  
Precision machined contacts, AWG 20

Through-hole  $\varnothing$  3 mm

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

	No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAM99A10X	3005W1PAM99A10X
	7W2					3007W2SAM99A10X	3007W2PAM99A10X
	9W4					3009W4SAM99A10X	3009W4PAM99A10X
	11W1					3011W1SAM99A10X	3011W1PAM99A10X
	13W3					3013W3SAM99A10X	3013W3PAM99A10X
	13W6					3013W6SAM99A10X	3013W6PAM99A10X
	17W2					3017W2SAM99A10X	3017W2PAM99A10X
	17W5					3017W5SAM99A10X	3017W5PAM99A10X
	21W1					3021W1SAM99A10X	3021W1PAM99A10X
	24W7					3024W7SAM99A10X	3024W7PAM99A10X
	25W3					3025W3SAM99A10X	3025W3PAM99A10X
	27W2					3027W2SAM99A10X	3027W2PAM99A10X
	36W4					3036W4SAM99A10X	3036W4PAM99A10X
	43W2					3043W2SAM99A10X	3043W2PAM99A10X
	47W1					3047W1SAM99A10X	3047W1PAM99A10X
	21WA4					321WA4SAM99A10X	321WA4PAM99A10X

4-40 UNC threaded insert


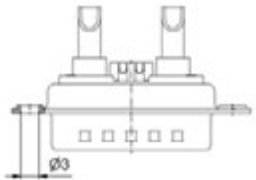
	No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAM99A30X	3005W1PAM99A30X
	7W2					3007W2SAM99A30X	3007W2PAM99A30X
	9W4					3009W4SAM99A30X	3009W4PAM99A30X
	11W1					3011W1SAM99A30X	3011W1PAM99A30X
	13W3					3013W3SAM99A30X	3013W3PAM99A30X
	13W6					3013W6SAM99A30X	3013W6PAM99A30X
	17W2					3017W2SAM99A30X	3017W2PAM99A30X
	17W5					3017W5SAM99A30X	3017W5PAM99A30X
	21W1					3021W1SAM99A30X	3021W1PAM99A30X
	24W7					3024W7SAM99A30X	3024W7PAM99A30X
	25W3					3025W3SAM99A30X	3025W3PAM99A30X
	27W2					3027W2SAM99A30X	3027W2PAM99A30X
	36W4					3036W4SAM99A30X	3036W4PAM99A30X
	43W2					3043W2SAM99A30X	3043W2PAM99A30X
	47W1					3047W1SAM99A30X	3047W1PAM99A30X
	21WA4					321WA4SAM99A30X	321WA4PAM99A30X

## COMBINATION D-SUB CONNECTORS

With signal contacts & high power contacts 20 A

Solder cup  
Precision machined contacts, AWG 20


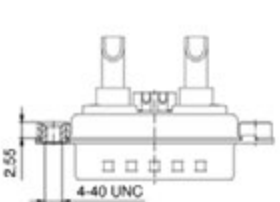
Through-hole Ø 3 mm

Through-hole Ø 3 mm			No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 			5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAM62A10X	3005W1PAM62A10X
			7W2					3007W2SAM62A10X	3007W2PAM62A10X
			9W4					3009W4SAM62A10X	3009W4PAM62A10X
			11W1					3011W1SAM62A10X	3011W1PAM62A10X
			13W3					3013W3SAM62A10X	3013W3PAM62A10X
			13W6					3013W6SAM62A10X	3013W6PAM62A10X
			17W2					3017W2SAM62A10X	3017W2PAM62A10X
			17W5					3017W5SAM62A10X	3017W5PAM62A10X
			21W1					3021W1SAM62A10X	3021W1PAM62A10X
			24W7					3024W7SAM62A10X	3024W7PAM62A10X
			25W3					3025W3SAM62A10X	3025W3PAM62A10X
			27W2					3027W2SAM62A10X	3027W2PAM62A10X
			36W4					3036W4SAM62A10X	3036W4PAM62A10X
			43W2					3043W2SAM62A10X	3043W2PAM62A10X
			47W1					3047W1SAM62A10X	3047W1PAM62A10X
			21WA4					321WA4SAM62A10X	321WA4PAM62A10X

For other Power contacts select code from spread sheet

Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A
63	10-12	30 A
64	8-10	40 A

4-40 UNC threaded insert

4-40 UNC threaded insert			No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 			5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAM62A30X	3005W1PAM62A30X
			7W2					3007W2SAM62A30X	3007W2PAM62A30X
			9W4					3009W4SAM62A30X	3009W4PAM62A30X
			11W1					3011W1SAM62A30X	3011W1PAM62A30X
			13W3					3013W3SAM62A30X	3013W3PAM62A30X
			13W6					3013W6SAM62A30X	3013W6PAM62A30X
			17W2					3017W2SAM62A30X	3017W2PAM62A30X
			17W5					3017W5SAM62A30X	3017W5PAM62A30X
			21W1					3021W1SAM62A30X	3021W1PAM62A30X
			24W7					3024W7SAM62A30X	3024W7PAM62A30X
			25W3					3025W3SAM62A30X	3025W3PAM62A30X
			27W2					3027W2SAM62A30X	3027W2PAM62A30X
			36W4					3036W4SAM62A30X	3036W4PAM62A30X
			43W2					3043W2SAM62A30X	3043W2PAM62A30X
			47W1					3047W1SAM62A30X	3047W1PAM62A30X
			21WA4					321WA4SAM62A30X	321WA4PAM62A30X

For other Power contacts select code from spread sheet

Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A
63	10-12	30 A
64	8-10	40 A

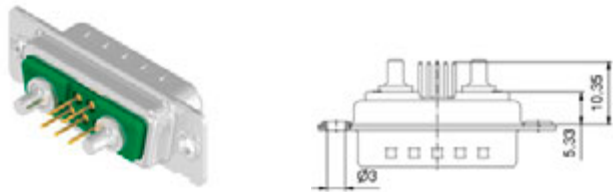
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## COMBINATION D-SUB CONNECTORS

With signal contacts & high power contacts 20 A

Solder pin, straight  
Precision machined contacts

Through-hole Ø 3 mm

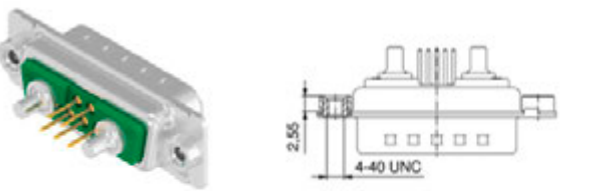
Through-hole Ø 3 mm			No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAR69A10X	3005W1PAR69A10X		
	7W2					3007W2SAR69A10X	3007W2PAR69A10X		
	9W4					3009W4SAR69A10X	3009W4PAR69A10X		
	11W1					3011W1SAR69A10X	3011W1PAR69A10X		
	13W3					3013W3SAR69A10X	3013W3PAR69A10X		
	13W6					3013W6SAR69A10X	3013W6PAR69A10X		
	17W2					3017W2SAR69A10X	3017W2PAR69A10X		
	17W5					3017W5SAR69A10X	3017W5PAR69A10X		
	21W1					3021W1SAR69A10X	3021W1PAR69A10X		
	24W7					3024W7SAR69A10X	3024W7PAR69A10X		
	25W3					3025W3SAR69A10X	3025W3PAR69A10X		
	27W2					3027W2SAR69A10X	3027W2PAR69A10X		
	36W4					3036W4SAR69A10X	3036W4PAR69A10X		
	43W2					3043W2SAR69A10X	3043W2PAR69A10X		
	47W1					3047W1SAR69A10X	3047W1PAR69A10X		
	21WA4					321WA4SAR69A10X	321WA4PAR69A10X		

For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert

4-40 UNC threaded insert			No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAR69A30X	3005W1PAR69A30X		
	7W2					3007W2SAR69A30X	3007W2PAR69A30X		
	9W4					3009W4SAR69A30X	3009W4PAR69A30X		
	11W1					3011W1SAR69A30X	3011W1PAR69A30X		
	13W3					3013W3SAR69A30X	3013W3PAR69A30X		
	13W6					3013W6SAR69A30X	3013W6PAR69A30X		
	17W2					3017W2SAR69A30X	3017W2PAR69A30X		
	17W5					3017W5SAR69A30X	3017W5PAR69A30X		
	21W1					3021W1SAR69A30X	3021W1PAR69A30X		
	24W7					3024W7SAR69A30X	3024W7PAR69A30X		
	25W3					3025W3SAR69A30X	3025W3PAR69A30X		
	27W2					3027W2SAR69A30X	3027W2PAR69A30X		
	36W4					3036W4SAR69A30X	3036W4PAR69A30X		
	43W2					3043W2SAR69A30X	3043W2PAR69A30X		
	47W1					3047W1SAR69A30X	3047W1PAR69A30X		
	21WA4					321WA4SAR69A30X	321WA4PAR69A30X		

For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75


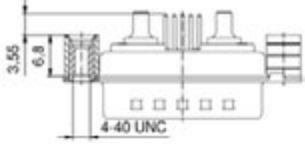
## COMBINATION D-SUB CONNECTORS

With signal contacts & high power contacts 20 A

Solder pin, straight  
Precision machined contacts

4-40 UNC threaded rear spacer

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

 			No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
					75 (UL) / 5 (CSA, VDE)	250	E228329	3	
	5W1						3005W1SAR69A50X	3005W1PAR69A50X	
	7W2						3007W2SAR69A50X	3007W2PAR69A50X	
	9W4						3009W4SAR69A50X	3009W4PAR69A50X	
	11W1						3011W1SAR69A50X	3011W1PAR69A50X	
	13W3						3013W3SAR69A50X	3013W3PAR69A50X	
	13W6						3013W6SAR69A50X	3013W6PAR69A50X	
	17W2						3017W2SAR69A50X	3017W2PAR69A50X	
	17W5						3017W5SAR69A50X	3017W5PAR69A50X	
	21W1						3021W1SAR69A50X	3021W1PAR69A50X	
	24W7						3024W7SAR69A50X	3024W7PAR69A50X	
	25W3						3025W3SAR69A50X	3025W3PAR69A50X	
	27W2						3027W2SAR69A50X	3027W2PAR69A50X	
	36W4						3036W4SAR69A50X	3036W4PAR69A50X	
	43W2						3043W2SAR69A50X	3043W2PAR69A50X	
	47W1						3047W1SAR69A50X	3047W1PAR69A50X	
	21WA4						321WA4SAR69A50X	321WA4PAR69A50X	

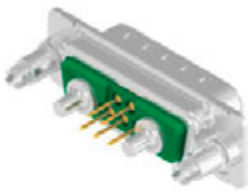
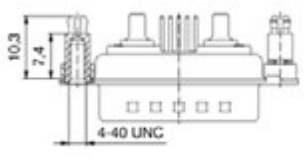
For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & high power contacts 20 A

Solder pin, straight, precision machined contacts  
Threaded rear spacer .291"/7.4 mm

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

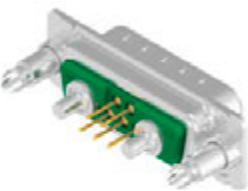
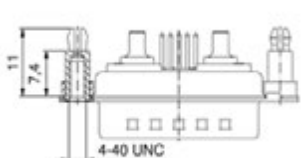
4-40 UNC threaded rear spacer clip for PCB 1.6 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAR69E20X	3005W1PAR69E20X	
	7W2					3007W2SAR69E20X	3007W2PAR69E20X	
	9W4					3009W4SAR69E20X	3009W4PAR69E20X	
	11W1					3011W1SAR69E20X	3011W1PAR69E20X	
	13W3					3013W3SAR69E20X	3013W3PAR69E20X	
	13W6					3013W6SAR69E20X	3013W6PAR69E20X	
	17W2					3017W2SAR69E20X	3017W2PAR69E20X	
	17W5					3017W5SAR69E20X	3017W5PAR69E20X	
	21W1					3021W1SAR69E20X	3021W1PAR69E20X	
	24W7					3024W7SAR69E20X	3024W7PAR69E20X	
	25W3					3025W3SAR69E20X	3025W3PAR69E20X	
	27W2					3027W2SAR69E20X	3027W2PAR69E20X	
	36W4					3036W4SAR69E20X	3036W4PAR69E20X	
	43W2					3043W2SAR69E20X	3043W2PAR69E20X	
	47W1					3047W1SAR69E20X	3047W1PAR69E20X	
	21WA4					321WA4SAR69E20X	321WA4PAR69E20X	

For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded rear spacer clip for PCB 2.3 mm

4-40 UNC threaded rear spacer clip for PCB 2.3 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAR69E40X	3005W1PAR69E40X	
	7W2					3007W2SAR69E40X	3007W2PAR69E40X	
	9W4					3009W4SAR69E40X	3009W4PAR69E40X	
	11W1					3011W1SAR69E40X	3011W1PAR69E40X	
	13W3					3013W3SAR69E40X	3013W3PAR69E40X	
	13W6					3013W6SAR69E40X	3013W6PAR69E40X	
	17W2					3017W2SAR69E40X	3017W2PAR69E40X	
	17W5					3017W5SAR69E40X	3017W5PAR69E40X	
	21W1					3021W1SAR69E40X	3021W1PAR69E40X	
	24W7					3024W7SAR69E40X	3024W7PAR69E40X	
	25W3					3025W3SAR69E40X	3025W3PAR69E40X	
	27W2					3027W2SAR69E40X	3027W2PAR69E40X	
	36W4					3036W4SAR69E40X	3036W4PAR69E40X	
	43W2					3043W2SAR69E40X	3043W2PAR69E40X	
	47W1					3047W1SAR69E40X	3047W1PAR69E40X	
	21WA4					321WA4SAR69E40X	321WA4PAR69E40X	

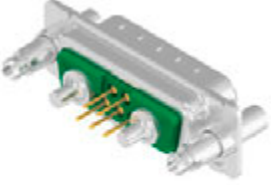
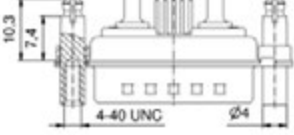
For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
69	20 A	2.60
71	30 A	3.18
72	40 A	3.75

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & high power contacts 20 A

Solder pin, straight, precision machined contacts  
Threaded rear spacer .291"/7.4 mm

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

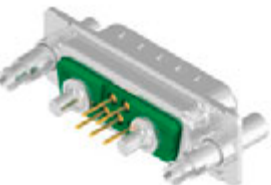
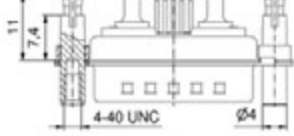
4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm			No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR69F20X	3005W1PAR69F20X		
	7W2					3007W2SAR69F20X	3007W2PAR69F20X		
	9W4					3009W4SAR69F20X	3009W4PAR69F20X		
	11W1					3011W1SAR69F20X	3011W1PAR69F20X		
	13W3					3013W3SAR69F20X	3013W3PAR69F20X		
	13W6					3013W6SAR69F20X	3013W6PAR69F20X		
	17W2					3017W2SAR69F20X	3017W2PAR69F20X		
	17W5					3017W5SAR69F20X	3017W5PAR69F20X		
	21W1					3021W1SAR69F20X	3021W1PAR69F20X		
	24W7					3024W7SAR69F20X	3024W7PAR69F20X		
	25W3					3025W3SAR69F20X	3025W3PAR69F20X		
	27W2					3027W2SAR69F20X	3027W2PAR69F20X		
	36W4					3036W4SAR69F20X	3036W4PAR69F20X		
	43W2					3043W2SAR69F20X	3043W2PAR69F20X		
	47W1					3047W1SAR69F20X	3047W1PAR69F20X		
	21WA4					321WA4SAR69F20X	321WA4PAR69F20X		

For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC front, threaded rear spacer clip for PCB 2.3 mm

4-40 UNC front, threaded rear spacer clip for PCB 2.3 mm			No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR69F40X	3005W1PAR69F40X		
	7W2					3007W2SAR69F40X	3007W2PAR69F40X		
	9W4					3009W4SAR69F40X	3009W4PAR69F40X		
	11W1					3011W1SAR69F40X	3011W1PAR69F40X		
	13W3					3013W3SAR69F40X	3013W3PAR69F40X		
	13W6					3013W6SAR69F40X	3013W6PAR69F40X		
	17W2					3017W2SAR69F40X	3017W2PAR69F40X		
	17W5					3017W5SAR69F40X	3017W5PAR69F40X		
	21W1					3021W1SAR69F40X	3021W1PAR69F40X		
	24W7					3024W7SAR69F40X	3024W7PAR69F40X		
	25W3					3025W3SAR69F40X	3025W3PAR69F40X		
	27W2					3027W2SAR69F40X	3027W2PAR69F40X		
	36W4					3036W4SAR69F40X	3036W4PAR69F40X		
	43W2					3043W2SAR69F40X	3043W2PAR69F40X		
	47W1					3047W1SAR69F40X	3047W1PAR69F40X		
	21WA4					321WA4SAR69F40X	321WA4PAR69F40X		

For other Power contacts select code from spread sheet

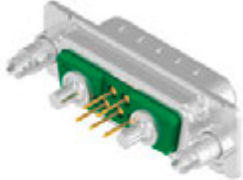
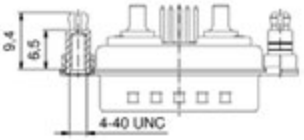
Code	Current rating	Diameter solder pin
69	20 A	2.60
71	30 A	3.18
72	40 A	3.75

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & high power contacts 20 A

Solder pin, straight, precision machined contacts  
Threaded rear spacer .256"/6.5 mm

4-40 UNC threaded rear spacer clip for PCB 1.6 mm


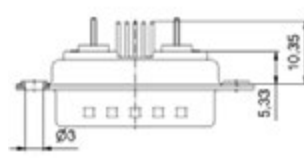
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

 			No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																		
								Part No. Socket contact	Part No. Plug contact																		
<p>For other Power contacts select code from spread sheet</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr> <td>68</td> <td>20 A</td> <td>1.95</td> </tr> <tr> <td>69</td> <td>20 A</td> <td>2.60</td> </tr> <tr> <td>70</td> <td>20 A</td> <td>2.85</td> </tr> <tr> <td>71</td> <td>30 A</td> <td>3.18</td> </tr> <tr> <td>72</td> <td>40 A</td> <td>3.75</td> </tr> </tbody> </table>			Code	Current rating	Diameter solder pin	68	20 A	1.95	69	20 A	2.60	70	20 A	2.85	71	30 A	3.18	72	40 A	3.75	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR69C20X	3005W1PAR69C20X
			Code	Current rating	Diameter solder pin																						
			68	20 A	1.95																						
			69	20 A	2.60																						
			70	20 A	2.85																						
			71	30 A	3.18																						
			72	40 A	3.75																						
			7W2	3007W2SAR69C20X	3007W2PAR69C20X																						
			9W4	3009W4SAR69C20X	3009W4PAR69C20X																						
			11W1	3011W1SAR69C20X	3011W1PAR69C20X																						
			13W3	3013W3SAR69C20X	3013W3PAR69C20X																						
			13W6	3013W6SAR69C20X	3013W6PAR69C20X																						
			17W2	3017W2SAR69C20X	3017W2PAR69C20X																						
			17W5	3017W5SAR69C20X	3017W5PAR69C20X																						
			21W1	3021W1SAR69C20X	3021W1PAR69C20X																						
			24W7	3024W7SAR69C20X	3024W7PAR69C20X																						
25W3	3025W3SAR69C20X	3025W3PAR69C20X																									
27W2	3027W2SAR69C20X	3027W2PAR69C20X																									
36W4	3036W4SAR69C20X	3036W4PAR69C20X																									
43W2	3043W2SAR69C20X	3043W2PAR69C20X																									
47W1	3047W1SAR69C20X	3047W1PAR69C20X																									
21WA4	321WA4SAR69C20X	321WA4PAR69C20X																									

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & coaxial contacts 50 Ω

Solder pin, straight  
Precision machined contacts

Through-hole Ø 3 mm


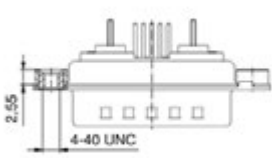
Through-hole Ø 3 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR76A10X	3005W1PAR76A10X	
	7W2					3007W2SAR76A10X	3007W2PAR76A10X	
	9W4					3009W4SAR76A10X	3009W4PAR76A10X	
	11W1					3011W1SAR76A10X	3011W1PAR76A10X	
	13W3					3013W3SAR76A10X	3013W3PAR76A10X	
	13W6					3013W6SAR76A10X	3013W6PAR76A10X	
	17W2					3017W2SAR76A10X	3017W2PAR76A10X	
	17W5					3017W5SAR76A10X	3017W5PAR76A10X	
	21W1					3021W1SAR76A10X	3021W1PAR76A10X	
	24W7					3024W7SAR76A10X	3024W7PAR76A10X	
	25W3					3025W3SAR76A10X	3025W3PAR76A10X	
	27W2					3027W2SAR76A10X	3027W2PAR76A10X	
	36W4					3036W4SAR76A10X	3036W4PAR76A10X	
	43W2					3043W2SAR76A10X	3043W2PAR76A10X	
	47W1					3047W1SAR76A10X	3047W1PAR76A10X	
	21WA4					321WA4SAR76A10X	321WA4PAR76A10X	

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR76A30X	3005W1PAR76A30X	
	7W2					3007W2SAR76A30X	3007W2PAR76A30X	
	9W4					3009W4SAR76A30X	3009W4PAR76A30X	
	11W1					3011W1SAR76A30X	3011W1PAR76A30X	
	13W3					3013W3SAR76A30X	3013W3PAR76A30X	
	13W6					3013W6SAR76A30X	3013W6PAR76A30X	
	17W2					3017W2SAR76A30X	3017W2PAR76A30X	
	17W5					3017W5SAR76A30X	3017W5PAR76A30X	
	21W1					3021W1SAR76A30X	3021W1PAR76A30X	
	24W7					3024W7SAR76A30X	3024W7PAR76A30X	
	25W3					3025W3SAR76A30X	3025W3PAR76A30X	
	27W2					3027W2SAR76A30X	3027W2PAR76A30X	
	36W4					3036W4SAR76A30X	3036W4PAR76A30X	
	43W2					3043W2SAR76A30X	3043W2PAR76A30X	
	47W1					3047W1SAR76A30X	3047W1PAR76A30X	
	21WA4					321WA4SAR76A30X	321WA4PAR76A30X	

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω


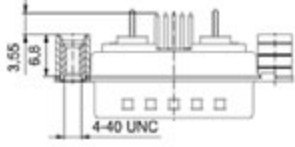


**COMBINATION D-SUB CONNECTORS**  
With signal contacts & coaxial contacts 50 Ω

Solder pin, straight  
Precision machined contacts

4-40 UNC threaded rear spacer

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

 		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
		5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR76A50X	3005W1PAR76A50X
		7W2					3007W2SAR76A50X	3007W2PAR76A50X
		9W4					3009W4SAR76A50X	3009W4PAR76A50X
		11W1					3011W1SAR76A50X	3011W1PAR76A50X
		13W3					3013W3SAR76A50X	3013W3PAR76A50X
		13W6					3013W6SAR76A50X	3013W6PAR76A50X
		17W2					3017W2SAR76A50X	3017W2PAR76A50X
		17W5					3017W5SAR76A50X	3017W5PAR76A50X
		21W1					3021W1SAR76A50X	3021W1PAR76A50X
		24W7					3024W7SAR76A50X	3024W7PAR76A50X
		25W3					3025W3SAR76A50X	3025W3PAR76A50X
		27W2					3027W2SAR76A50X	3027W2PAR76A50X
		36W4					3036W4SAR76A50X	3036W4PAR76A50X
		43W2					3043W2SAR76A50X	3043W2PAR76A50X
		47W1					3047W1SAR76A50X	3047W1PAR76A50X
		21WA4					321WA4SAR76A50X	321WA4PAR76A50X


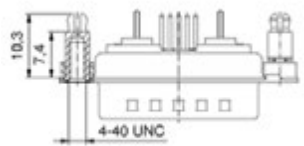
  

For other coaxial contacts select code from spread sheet	
Code	Impedance
76	50 Ω
86	75 Ω

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & coaxial contacts 50 Ω

Solder pin, straight, precision machined contacts  
Threaded rear spacer .291"/7.4 mm

4-40 UNC threaded rear spacer clip for PCB 1.6 mm


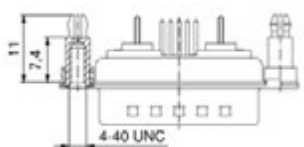
4-40 UNC threaded rear spacer clip for PCB 1.6 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR76E20X	3005W1PAR76E20X
		7W2					3007W2SAR76E20X	3007W2PAR76E20X
		9W4					3009W4SAR76E20X	3009W4PAR76E20X
		11W1					3011W1SAR76E20X	3011W1PAR76E20X
		13W3					3013W3SAR76E20X	3013W3PAR76E20X
		13W6					3013W6SAR76E20X	3013W6PAR76E20X
		17W2					3017W2SAR76E20X	3017W2PAR76E20X
		17W5					3017W5SAR76E20X	3017W5PAR76E20X
		21W1					3021W1SAR76E20X	3021W1PAR76E20X
		24W7					3024W7SAR76E20X	3024W7PAR76E20X
		25W3					3025W3SAR76E20X	3025W3PAR76E20X
		27W2					3027W2SAR76E20X	3027W2PAR76E20X
		36W4					3036W4SAR76E20X	3036W4PAR76E20X
		43W2					3043W2SAR76E20X	3043W2PAR76E20X
		47W1					3047W1SAR76E20X	3047W1PAR76E20X
		21WA4					321WA4SAR76E20X	321WA4PAR76E20X

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded rear spacer clip for PCB 2.3 mm

4-40 UNC threaded rear spacer clip for PCB 2.3 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR76E40X	3005W1PAR76E40X
		7W2					3007W2SAR76E40X	3007W2PAR76E40X
		9W4					3009W4SAR76E40X	3009W4PAR76E40X
		11W1					3011W1SAR76E40X	3011W1PAR76E40X
		13W3					3013W3SAR76E40X	3013W3PAR76E40X
		13W6					3013W6SAR76E40X	3013W6PAR76E40X
		17W2					3017W2SAR76E40X	3017W2PAR76E40X
		17W5					3017W5SAR76E40X	3017W5PAR76E40X
		21W1					3021W1SAR76E40X	3021W1PAR76E40X
		24W7					3024W7SAR76E40X	3024W7PAR76E40X
		25W3					3025W3SAR76E40X	3025W3PAR76E40X
		27W2					3027W2SAR76E40X	3027W2PAR76E40X
		36W4					3036W4SAR76E40X	3036W4PAR76E40X
		43W2					3043W2SAR76E40X	3043W2PAR76E40X
		47W1					3047W1SAR76E40X	3047W1PAR76E40X
		21WA4					321WA4SAR76E40X	321WA4PAR76E40X


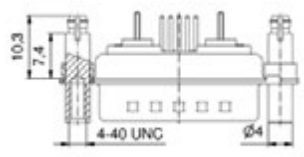
For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & coaxial contacts 50 Ω

Solder pin, straight, precision machined contacts  
Threaded rear spacer .291"/7.4 mm

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

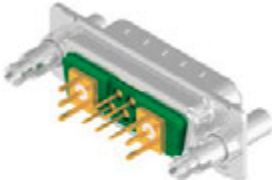
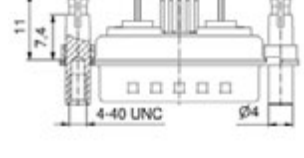
4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAR76F20X	3005W1PAR76F20X	
	7W2					3007W2SAR76F20X	3007W2PAR76F20X	
	9W4					3009W4SAR76F20X	3009W4PAR76F20X	
	11W1					3011W1SAR76F20X	3011W1PAR76F20X	
	13W3					3013W3SAR76F20X	3013W3PAR76F20X	
	13W6					3013W6SAR76F20X	3013W6PAR76F20X	
	17W2					3017W2SAR76F20X	3017W2PAR76F20X	
	17W5					3017W5SAR76F20X	3017W5PAR76F20X	
	21W1					3021W1SAR76F20X	3021W1PAR76F20X	
	24W7					3024W7SAR76F20X	3024W7PAR76F20X	
	25W3					3025W3SAR76F20X	3025W3PAR76F20X	
	27W2					3027W2SAR76F20X	3027W2PAR76F20X	
	36W4					3036W4SAR76F20X	3036W4PAR76F20X	
	43W2					3043W2SAR76F20X	3043W2PAR76F20X	
	47W1					3047W1SAR76F20X	3047W1PAR76F20X	
	21WA4					321WA4SAR76F20X	321WA4PAR76F20X	

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC front, threaded rear spacer clip for PCB 2.3 mm

4-40 UNC front, threaded rear spacer clip for PCB 2.3 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAR76F40X	3005W1PAR76F40X	
	7W2					3007W2SAR76F40X	3007W2PAR76F40X	
	9W4					3009W4SAR76F40X	3009W4PAR76F40X	
	11W1					3011W1SAR76F40X	3011W1PAR76F40X	
	13W3					3013W3SAR76F40X	3013W3PAR76F40X	
	13W6					3013W6SAR76F40X	3013W6PAR76F40X	
	17W2					3017W2SAR76F40X	3017W2PAR76F40X	
	17W5					3017W5SAR76F40X	3017W5PAR76F40X	
	21W1					3021W1SAR76F40X	3021W1PAR76F40X	
	24W7					3024W7SAR76F40X	3024W7PAR76F40X	
	25W3					3025W3SAR76F40X	3025W3PAR76F40X	
	27W2					3027W2SAR76F40X	3027W2PAR76F40X	
	36W4					3036W4SAR76F40X	3036W4PAR76F40X	
	43W2					3043W2SAR76F40X	3043W2PAR76F40X	
	47W1					3047W1SAR76F40X	3047W1PAR76F40X	
	21WA4					321WA4SAR76F40X	321WA4PAR76F40X	


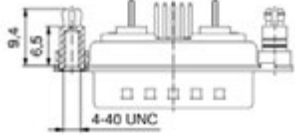
For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & coaxial contacts 50 Ω

Solder pin, straight, precision machined contacts  
Threaded rear spacer .256"/6.5 mm

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

4-40 UNC threaded rear spacer clip for PCB 1.6 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR76C20X	3005W1PAR76C20X	
	7W2					3007W2SAR76C20X	3007W2PAR76C20X	
	9W4					3009W4SAR76C20X	3009W4PAR76C20X	
	11W1					3011W1SAR76C20X	3011W1PAR76C20X	
	13W3					3013W3SAR76C20X	3013W3PAR76C20X	
	13W6					3013W6SAR76C20X	3013W6PAR76C20X	
	17W2					3017W2SAR76C20X	3017W2PAR76C20X	
	17W5					3017W5SAR76C20X	3017W5PAR76C20X	
	21W1					3021W1SAR76C20X	3021W1PAR76C20X	
	24W7					3024W7SAR76C20X	3024W7PAR76C20X	
	25W3					3025W3SAR76C20X	3025W3PAR76C20X	
	27W2					3027W2SAR76C20X	3027W2PAR76C20X	
	36W4					3036W4SAR76C20X	3036W4PAR76C20X	
	43W2					3043W2SAR76C20X	3043W2PAR76C20X	
	47W1					3047W1SAR76C20X	3047W1PAR76C20X	
	21WA4					321WA4SAR76C20X	321WA4PAR76C20X	

For other coaxial contacts select code from spread sheet


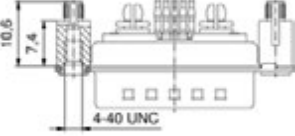
Code	Impedance
76	50 Ω
86	75 Ω

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & high power contacts 30 A

Press-fit, straight  
Precision machined contacts

4-40 UNC rear press-fit spacer

4-40 UNC rear press-fit spacer		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAPP1 W20X	3005W1PAPP1 W20X	
	7W2					3007W2SAPP1 W20X	3007W2PAPP1 W20X	
	9W4					3009W4SAPP1 W20X	3009W4PAPP1 W20X	
	11W1					3011W1SAPP1 W20X	3011W1PAPP1 W20X	
	13W3					3013W3SAPP1 W20X	3013W3PAPP1 W20X	
	13W6					3013W6SAPP1 W20X	3013W6PAPP1 W20X	
	17W2					3017W2SAPP1 W20X	3017W2PAPP1 W20X	
	17W5					3017W5SAPP1 W20X	3017W5PAPP1 W20X	
	21W1					3021W1SAPP1 W20X	3021W1PAPP1 W20X	
	24W7					3024W7SAPP1 W20X	3024W7PAPP1 W20X	
	25W3					3025W3SAPP1 W20X	3025W3PAPP1 W20X	
	27W2					3027W2SAPP1 W20X	3027W2PAPP1 W20X	
	36W4					3036W4SAPP1 W20X	3036W4PAPP1 W20X	
	43W2					3043W2SAPP1 W20X	3043W2PAPP1 W20X	
	47W1					3047W1SAPP1 W20X	3047W1PAPP1 W20X	
	21WA4					321WA4SAPP1 W20X	321WA4PAPP1 W20X	

For other Power contacts select code from spread sheet


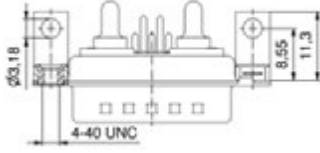
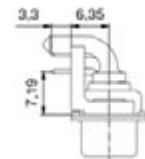
Code	Current rating	Hole diameter PCB
P1	30 A	3.11
P2	30 A	3.25
P4	30 A	3.20

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & high power contacts 20 A

Solder pin, angled, 3.18"/7.19 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert


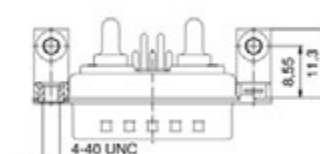
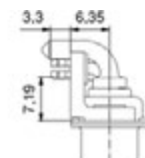
  				No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact
								5W1	75 (UL) / 5 (CSA, VDE)
				7W2	3007W2SAT73N20X				
				9W4	3009W4SAT73N20X				
				11W1	3011W1SAT73N20X				
				13W3	3013W3SAT73N20X				
				13W6	3013W6SAT73N20X				
				17W2	3017W2SAT73N20X				
				17W5	3017W5SAT73N20X				
				21W1	3021W1SAT73N20X				
				24W7	3024W7SAT81N20X				
				25W3	3025W3SAT73N20X				
				27W2	3027W2SAT73N20X				
				36W4	3036W4SAT81N20X				
				43W2	3043W2SAT81N20X				
				47W1	3047W1SAT81N20X				
				21WA4	321WA4SAT73N20X				

For other Power contacts select code from spread sheet			
Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75
81	5	20 A	2.85
82	5	30 A	3.20
85	5	30 A	3.20
77	5	40 A	3.75

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

  				No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact
								5W1	75 (UL) / 5 (CSA, VDE)
				7W2	3007W2SAT73N40X				
				9W4	3009W4SAT73N40X				
				11W1	3011W1SAT73N40X				
				13W3	3013W3SAT73N40X				
				13W6	3013W6SAT73N40X				
				17W2	3017W2SAT73N40X				
				17W5	3017W5SAT73N40X				
				21W1	3021W1SAT73N40X				
				24W7	3024W7SAT81N40X				
				25W3	3025W3SAT73N40X				
				27W2	3027W2SAT73N40X				
				36W4	3036W4SAT81N40X				
				43W2	3043W2SAT81N40X				
				47W1	3047W1SAT81N40X				
				21WA4	321WA4SAT73N40X				


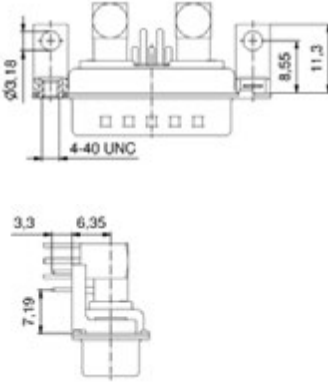
  

For other Power contacts select code from spread sheet			
Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75
81	5	20 A	2.85
82	5	30 A	3.20
85	5	30 A	3.20
77	5	40 A	3.75

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & coaxial contacts 50 Ω

Solder pin, angled, 3.18"/7.19 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert


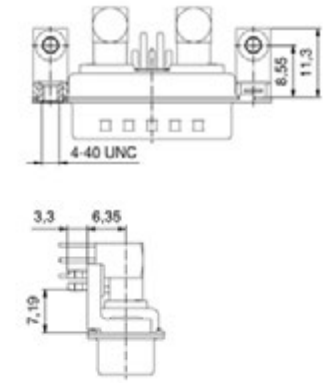
4-40 UNC threaded insert			No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact
 			5W1	75 (UI) / 5 (CSA, VDE)	250	E228329	3	3005W1SAT78N20X
			7W2					3007W2SAT78N20X
			9W4					3009W4SAT78N20X
			11W1					3011W1SAT78N20X
			13W3					3013W3SAT78N20X
			13W6					3013W6SAT78N20X
			17W2					3017W2SAT78N20X
			17W5					3017W5SAT78N20X
			21W1					3021W1SAT78N20X
			24W7					3024W7SAT79N20X
			25W3					3025W3SAT78N20X
			27W2					3027W2SAT78N20X
			36W4					3036W4SAT79N20X
			43W2					3043W2SAT79N20X
			47W1					3047W1SAT79N20X
			21WA4					321WA4SAT78N20X

For other coaxial contacts select code from spread sheet

Code	Impedance	Shellsize
78	50 Ω	1-4
79	50 Ω	5
88	75 Ω	1-4
89	75 Ω	5

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Clip for PCB 1.6 mm, 4-40 UNC threaded insert			No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact
 			5W1	75 (UI) / 5 (CSA, VDE)	250	E228329	3	3005W1SAT78N40X
			7W2					3007W2SAT78N40X
			9W4					3009W4SAT78N40X
			11W1					3011W1SAT78N40X
			13W3					3013W3SAT78N40X
			13W6					3013W6SAT78N40X
			17W2					3017W2SAT78N40X
			17W5					3017W5SAT78N40X
			21W1					3021W1SAT78N40X
			24W7					3024W7SAT79N40X
			25W3					3025W3SAT78N40X
			27W2					3027W2SAT78N40X
			36W4					3036W4SAT79N40X
			43W2					3043W2SAT79N40X
			47W1					3047W1SAT79N40X
			21WA4					321WA4SAT78N40X

For other coaxial contacts select code from spread sheet


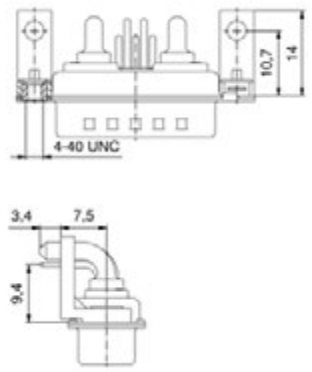
Code	Impedance	Shellsize
78	50 Ω	1-4
79	50 Ω	5
88	75 Ω	1-4
89	75 Ω	5

## COMBINATION D-SUB CONNECTORS


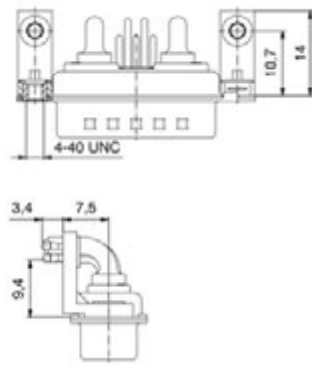
With signal contacts & high power contacts 20 A

Solder pin, angled, 3.70"/9.4 mm  
Precision machined contacts, metal bracket

### 4-40 UNC threaded insert

 				No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact																																				
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<p>For other Power contacts select code from spread sheet</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Shellsize</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr><td>59</td><td>1-4</td><td>15 A</td><td>1.90</td></tr> <tr><td>73</td><td>1-4</td><td>20 A</td><td>2.85</td></tr> <tr><td>74</td><td>1-4</td><td>30 A</td><td>3.20</td></tr> <tr><td>75</td><td>1-4</td><td>40 A</td><td>3.75</td></tr> <tr><td>81</td><td>5</td><td>20 A</td><td>2.85</td></tr> <tr><td>82</td><td>5</td><td>30 A</td><td>3.20</td></tr> <tr><td>85</td><td>5</td><td>30 A</td><td>3.20</td></tr> <tr><td>77</td><td>5</td><td>40 A</td><td>3.75</td></tr> </tbody> </table>				Code	Shellsize	Current rating	Diameter solder pin	59	1-4	15 A	1.90	73	1-4	20 A	2.85	74	1-4	30 A	3.20	75	1-4	40 A	3.75	81	5	20 A	2.85	82	5	30 A	3.20	85	5	30 A	3.20	77	5	40 A	3.75	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAU73G20X
				Code	Shellsize	Current rating	Diameter solder pin																																						
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				85	5	30 A	3.20																																						
				77	5	40 A	3.75																																						
				7W2	3007W2SAU73G20X																																								
				9W4	3009W4SAU73G20X																																								
				11W1	3011W1SAU73G20X																																								
				13W3	3013W3SAU73G20X																																								
				13W6	3013W6SAU73G20X																																								
				17W2	3017W2SAU73G20X																																								
17W5	3017W5SAU73G20X																																												
21W1	3021W1SAU73G20X																																												
24W7	3024W7SAU81G20X																																												
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47W1	3047W1SAU81G20X																																												
21WA4	321WA4SAU73G20X																																												

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert

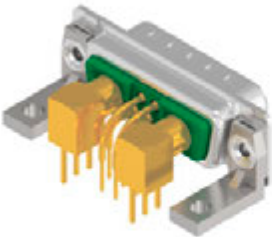
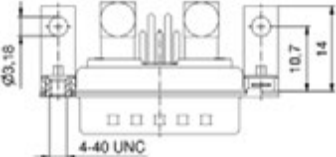
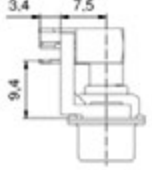
 				No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact																																				
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<p>For other Power contacts select code from spread sheet</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Shellsize</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr><td>59</td><td>1-4</td><td>15 A</td><td>1.90</td></tr> <tr><td>73</td><td>1-4</td><td>20 A</td><td>2.85</td></tr> <tr><td>74</td><td>1-4</td><td>30 A</td><td>3.20</td></tr> <tr><td>75</td><td>1-4</td><td>40 A</td><td>3.75</td></tr> <tr><td>81</td><td>5</td><td>20 A</td><td>2.85</td></tr> <tr><td>82</td><td>5</td><td>30 A</td><td>3.20</td></tr> <tr><td>85</td><td>5</td><td>30 A</td><td>3.20</td></tr> <tr><td>77</td><td>5</td><td>40 A</td><td>3.75</td></tr> </tbody> </table>				Code	Shellsize	Current rating	Diameter solder pin	59	1-4	15 A	1.90	73	1-4	20 A	2.85	74	1-4	30 A	3.20	75	1-4	40 A	3.75	81	5	20 A	2.85	82	5	30 A	3.20	85	5	30 A	3.20	77	5	40 A	3.75	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAU73G40X
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				7W2	3007W2SAU73G40X																																								
				9W4	3009W4SAU73G40X																																								
				11W1	3011W1SAU73G40X																																								
				13W3	3013W3SAU73G40X																																								
				13W6	3013W6SAU73G40X																																								
				17W2	3017W2SAU73G40X																																								
17W5	3017W5SAU73G40X																																												
21W1	3021W1SAU73G40X																																												
24W7	3024W7SAU81G40X																																												
25W3	3025W3SAU73G40X																																												
27W2	3027W2SAU73G40X																																												
36W4	3036W4SAU81G40X																																												
43W2	3043W2SAU81G40X																																												
47W1	3047W1SAU81G40X																																												
21WA4	321WA4SAU73G40X																																												

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & coaxial contacts 50 Ω

Solder pin, angled, 3.70"/9.4 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

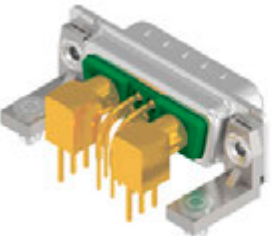
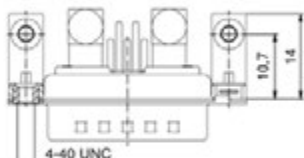
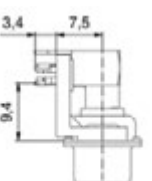
4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact
  	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAU78G20X	
	7W2					3007W2SAU78G20X	
	9W4					3009W4SAU78G20X	
	11W1					3011W1SAU78G20X	
	13W3					3013W3SAU78G20X	
	13W6					3013W6SAU78G20X	
	17W2					3017W2SAU78G20X	
	17W5					3017W5SAU78G20X	
	21W1					3021W1SAU78G20X	
	24W7					3024W7SAU79G20X	
	25W3					3025W3SAU78G20X	
	27W2					3027W2SAU78G20X	
	36W4					3036W4SAU79G20X	
	43W2					3043W2SAU79G20X	
	47W1					3047W1SAU79G20X	
	21WA4					321WA4SAU78G20X	

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

For other coaxial contacts select code from spread sheet

Code	Impedance	Shellsize
78	50 Ω	1-4
79	50 Ω	5
88	75 Ω	1-4
89	75 Ω	5

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact
  	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAU78G40X	
	7W2					3007W2SAU78G40X	
	9W4					3009W4SAU78G40X	
	11W1					3011W1SAU78G40X	
	13W3					3013W3SAU78G40X	
	13W6					3013W6SAU78G40X	
	17W2					3017W2SAU78G40X	
	17W5					3017W5SAU78G40X	
	21W1					3021W1SAU78G40X	
	24W7					3024W7SAU79G40X	
	25W3					3025W3SAU78G40X	
	27W2					3027W2SAU78G40X	
	36W4					3036W4SAU79G40X	
	43W2					3043W2SAU79G40X	
	47W1					3047W1SAU79G40X	
	21WA4					321WA4SAU78G40X	

For other coaxial contacts select code from spread sheet

Code	Impedance	Shellsize
78	50 Ω	1-4
79	50 Ω	5
88	75 Ω	1-4
89	75 Ω	5



## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & high power contacts 20 A

Solder cup  
Precision machined contacts, AWG 22

Through-hole Ø 3 mm

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

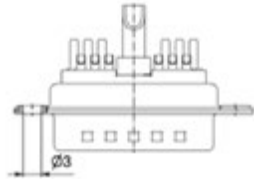
No. of poles

Current rating signal contacts [A]

Working voltage [V]

Quality class

Part No. Socket contact Part No. Plug contact



15W4

3 (UL, VDE) / 2.5 (CSA)

60

3

3H15W4SAM62A10X 3H15W4PAM62A10X

19W1

3H19W1SAM62A10X 3H19W1PAM62A10X

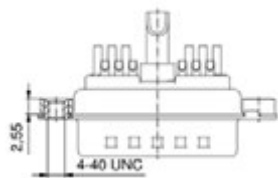
45W2

3H45W2SAM62A10X 3H45W2PAM62A10X

For other Power contacts select code from spread sheet

Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A
63	10-12	30 A
64	8-10	40 A

4-40 UNC threaded insert



15W4

3 (UL, VDE) / 2.5 (CSA)

60

3

3H15W4SAM62A30X 3H15W4PAM62A30X

19W1

3H19W1SAM62A30X 3H19W1PAM62A30X

45W2

3H45W2SAM62A30X 3H45W2PAM62A30X

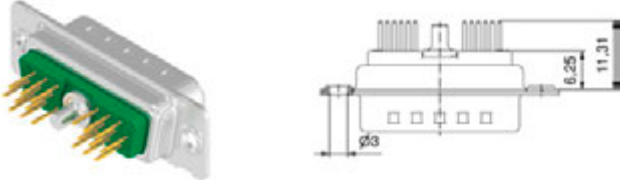
For other Power contacts select code from spread sheet

Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A
63	10-12	30 A
64	8-10	40 A

## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & high power contacts 20 A

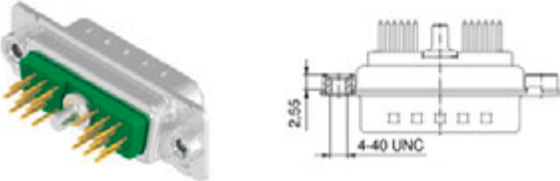
Solder pin, straight  
Precision machined contacts

Through-hole Ø 3 mm

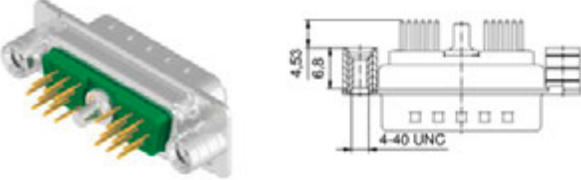
Through-hole Ø 3 mm			No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact																			
 <table border="1"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr><td>68</td><td>20 A</td><td>1.95</td></tr> <tr><td>69</td><td>20 A</td><td>2.60</td></tr> <tr><td>70</td><td>20 A</td><td>2.85</td></tr> <tr><td>71</td><td>30 A</td><td>3.18</td></tr> <tr><td>72</td><td>40 A</td><td>3.75</td></tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	Current rating	Diameter solder pin	68	20 A	1.95	69	20 A	2.60	70	20 A	2.85	71	30 A	3.18	72	40 A	3.75	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAR69A10X	3H15W4PAR69A10X
	For other Power contacts select code from spread sheet																										
	Code	Current rating	Diameter solder pin																								
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70	20 A	2.85																									
71	30 A	3.18																									
72	40 A	3.75																									
19W1	3H19W1SAR69A10X	3H19W1PAR69A10X																									
45W2	3H45W2SAR69A10X	3H45W2PAR69A10X																									

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert

4-40 UNC threaded insert			No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact																			
 <table border="1"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr><td>68</td><td>20 A</td><td>1.95</td></tr> <tr><td>69</td><td>20 A</td><td>2.60</td></tr> <tr><td>70</td><td>20 A</td><td>2.85</td></tr> <tr><td>71</td><td>30 A</td><td>3.18</td></tr> <tr><td>72</td><td>40 A</td><td>3.75</td></tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	Current rating	Diameter solder pin	68	20 A	1.95	69	20 A	2.60	70	20 A	2.85	71	30 A	3.18	72	40 A	3.75	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAR69A30X	3H15W4PAR69A30X
	For other Power contacts select code from spread sheet																										
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70	20 A	2.85																									
71	30 A	3.18																									
72	40 A	3.75																									
19W1	3H19W1SAR69A30X	3H19W1PAR69A30X																									
45W2	3H45W2SAR69A30X	3H45W2PAR69A30X																									

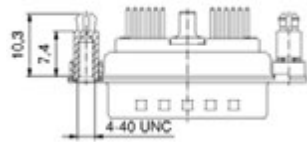
4-40 UNC threaded rear spacer

4-40 UNC threaded rear spacer			No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact																			
 <table border="1"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr><td>68</td><td>20 A</td><td>1.95</td></tr> <tr><td>69</td><td>20 A</td><td>2.60</td></tr> <tr><td>70</td><td>20 A</td><td>2.85</td></tr> <tr><td>71</td><td>30 A</td><td>3.18</td></tr> <tr><td>72</td><td>40 A</td><td>3.75</td></tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	Current rating	Diameter solder pin	68	20 A	1.95	69	20 A	2.60	70	20 A	2.85	71	30 A	3.18	72	40 A	3.75	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAR69A50X	3H15W4PAR69A50X
	For other Power contacts select code from spread sheet																										
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69	20 A	2.60																									
70	20 A	2.85																									
71	30 A	3.18																									
72	40 A	3.75																									
19W1	3H19W1SAR69A50X	3H19W1PAR69A50X																									
45W2	3H45W2SAR69A50X	3H45W2PAR69A50X																									

## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & high power contacts 20 A

Solder pin, straight  
Precision machined contacts

### 4-40 UNC threaded rear spacer clip for PCB 1.6 mm



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

No. of poles

Current rating signal contacts [A]

Working voltage [V]

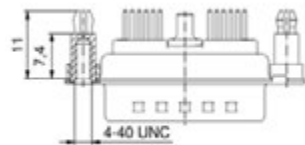
Quality class

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Part No. Socket contact Part No. Plug contact

15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAR69E20X	3H15W4PAR69E20X
19W1				3H19W1SAR69E20X	3H19W1PAR69E20X
45W2				3H45W2SAR69E20X	3H45W2PAR69E20X

### 4-40 UNC threaded rear spacer clip for PCB 2.3 mm

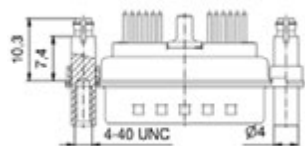


For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
69	20 A	2.60
71	30 A	3,18
72	40 A	3,75

15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAR69E40X	3H15W4PAR69E40X
19W1				3H19W1SAR69E40X	3H19W1PAR69E40X
45W2				3H45W2SAR69E40X	3H45W2PAR69E40X

### 4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm



For other Power contacts select code from spread sheet

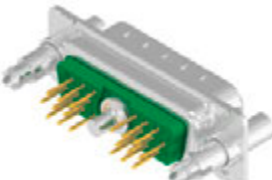
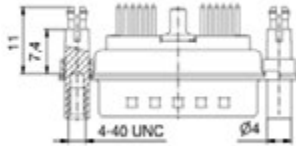
Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAR69F20X	3H15W4PAR69F20X
19W1				3H19W1SAR69F20X	3H19W1PAR69F20X
45W2				3H45W2SAR69F20X	3H45W2PAR69F20X

## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & high power contacts 20 A

Solder pin, straight  
Precision machined contacts

4-40 UNC front, threaded rear spacer clip for PCB 2.3 mm

4-40 UNC front, threaded rear spacer clip for PCB 2.3 mm			No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
 	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAR69F40X	3H15W4PAR69F40X		
	19W1				3H19W1SAR69F40X	3H19W1PAR69F40X		
	45W2				3H45W2SAR69F40X	3H45W2PAR69F40X		


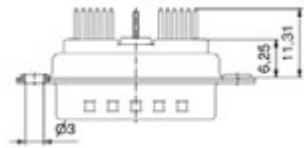
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Code	Current rating	Diameter solder pin
69	20 A	2,60
71	30 A	3,18
72	40 A	3,75

## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & coaxial contacts 50 Ω

Solder pin, straight  
Precision machined contacts


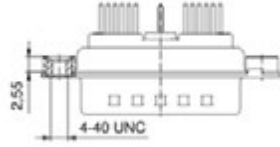
Through-hole Ø 3 mm

Through-hole Ø 3 mm			No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
 	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAR76A10X	3H15W4PAR76A10X		
	19W1				3H19W1SAR76A10X	3H19W1PAR76A10X		
	45W2				3H45W2SAR76A10X	3H45W2PAR76A10X		

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Code	Impedance
76	50 Ω
86	75 Ω

4-40 UNC threaded insert

4-40 UNC threaded insert			No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
 	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAR76A30X	3H15W4PAR76A30X		
	19W1				3H19W1SAR76A30X	3H19W1PAR76A30X		
	45W2				3H45W2SAR76A30X	3H45W2PAR76A30X		


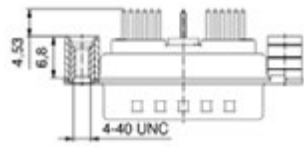
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Code	Impedance
76	50 Ω
86	75 Ω

## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & coaxial contacts 50 Ω

Solder pin, straight  
Precision machined contacts

4-40 UNC threaded rear spacer


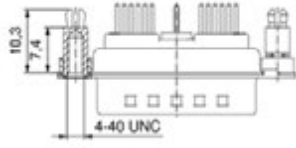
4-40 UNC threaded rear spacer		No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
 	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAR76A50X	3H15W4PAR76A50X	
	19W1				3H19W1SAR76A50X	3H19W1PAR76A50X	
	45W2				3H45W2SAR76A50X	3H45W2PAR76A50X	

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω


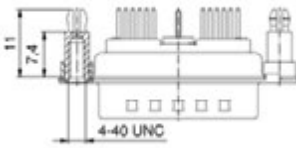
4-40 UNC threaded rear spacer clip for PCB 1.6 mm

4-40 UNC threaded rear spacer clip for PCB 1.6 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
 	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAR76E20X	3H15W4PAR76E20X	
	19W1				3H19W1SAR76E20X	3H19W1PAR76E20X	
	45W2				3H45W2SAR76E20X	3H45W2PAR76E20X	

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

4-40 UNC threaded rear spacer clip for PCB 2.3 mm

4-40 UNC threaded rear spacer clip for PCB 2.3 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
 	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAR76E40X	3H15W4PAR76E40X	
	19W1				3H19W1SAR76E40X	3H19W1PAR76E40X	
	45W2				3H45W2SAR76E40X	3H45W2PAR76E40X	

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

**COMBINATION D-SUB CONNECTORS HIGH DENSITY**  
With signal contacts & coaxial contacts 50 Ω

Solder pin, straight  
Precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC front, threaded rear spacer clip for PCB 1,6 mm

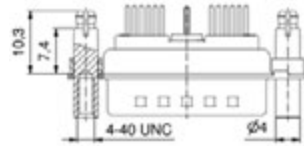
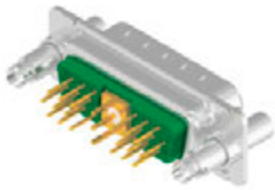
No. of poles

Current rating signal contacts [A]

Working voltage [V]

Quality class

Part No. Socket contact Part No. Plug contact



15W4

3 (UL, VDE) / 2.5 (CSA)

60

3

3H15W4SAR76F20X

3H15W4PAR76F20X

19W1

3H19W1SAR76F20X

3H19W1PAR76F20X

45W2

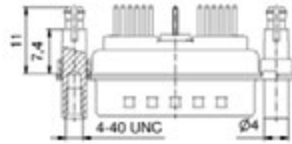
3H45W2SAR76F20X

3H45W2PAR76F20X

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

4-40 UNC front, threaded rear spacer clip for PCB 2,3 mm



15W4

3 (UL, VDE) / 2.5 (CSA)

60

3

3H15W4SAR76F40X

3H15W4PAR76F40X

19W1

3H19W1SAR76F40X

3H19W1PAR76F40X

45W2

3H45W2SAR76F40X

3H45W2PAR76F40X

For other coaxial contacts select code from spread sheet


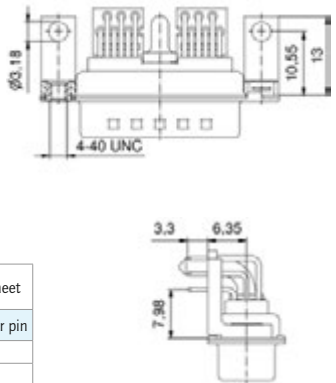
Code	Impedance
76	50 Ω
86	75 Ω

**COMBINATION D-SUB CONNECTORS HIGH DENSITY**  
With signal contacts & high power contacts 20 A


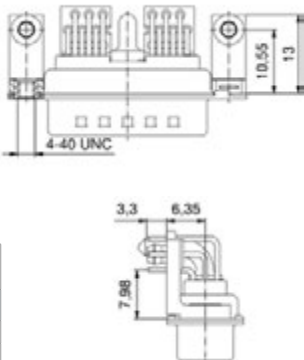
Solder pin, angled, 3.50"/7.98 mm  
Precision machined contacts, metal bracket

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact														
  <table border="1"> <caption>For other Power contacts select code from spread sheet</caption> <thead> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr> <td>59</td> <td>15 A</td> <td>1.90</td> </tr> <tr> <td>73</td> <td>20 A</td> <td>2.85</td> </tr> <tr> <td>74</td> <td>30 A</td> <td>3.20</td> </tr> <tr> <td>75</td> <td>40 A</td> <td>3.75</td> </tr> </tbody> </table>	Code	Current rating	Diameter solder pin	59	15 A	1.90	73	20 A	2.85	74	30 A	3.20	75	40 A	3.75	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAT73G60X	3H15W4PAT73G60X
	Code	Current rating	Diameter solder pin																		
	59	15 A	1.90																		
73	20 A	2.85																			
74	30 A	3.20																			
75	40 A	3.75																			
19W1	3H19W1SAT73G60X	3H19W1PAT73G60X																			
45W2	3H45W2SAT73G60X	3H45W2PAT73G60X																			

Clip for PCB 1.6 mm, 4-40 UNC threaded insert


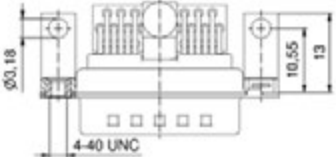
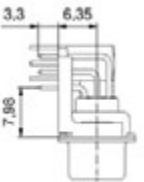
Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact														
  <table border="1"> <caption>For other Power contacts select code from spread sheet</caption> <thead> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr> <td>59</td> <td>15 A</td> <td>1.90</td> </tr> <tr> <td>73</td> <td>20 A</td> <td>2.85</td> </tr> <tr> <td>74</td> <td>30 A</td> <td>3.20</td> </tr> <tr> <td>75</td> <td>40 A</td> <td>3.75</td> </tr> </tbody> </table>	Code	Current rating	Diameter solder pin	59	15 A	1.90	73	20 A	2.85	74	30 A	3.20	75	40 A	3.75	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAT73G80X	3H15W4PAT73G80X
	Code	Current rating	Diameter solder pin																		
	59	15 A	1.90																		
73	20 A	2.85																			
74	30 A	3.20																			
75	40 A	3.75																			
19W1	3H19W1SAT73G80X	3H19W1PAT73G80X																			
45W2	3H45W2SAT73G80X	3H45W2PAT73G80X																			

## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & coaxial contacts 50 Ω


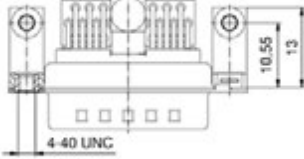
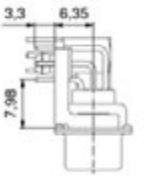
Solder pin, angled, 3.50"/7.98 mm  
Precision machined contacts, metal bracket

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

### 4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact							
   <table border="1"> <tr> <td colspan="2">For other coaxial contacts select code from spread sheet</td> </tr> <tr> <th>Code</th> <th>Impedance</th> </tr> <tr> <td>78</td> <td>50 Ω</td> </tr> <tr> <td>88</td> <td>75 Ω</td> </tr> </table>	For other coaxial contacts select code from spread sheet		Code	Impedance	78	50 Ω	88	75 Ω	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAT78G60X	3H15W4PAT78G60X
	For other coaxial contacts select code from spread sheet													
	Code	Impedance												
78	50 Ω													
88	75 Ω													
19W1	3H19W1SAT78G60X	3H19W1PAT78G60X												
45W2	3H45W2SAT78G60X	3H45W2PAT78G60X												

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact							
   <table border="1"> <tr> <td colspan="2">For other coaxial contacts select code from spread sheet</td> </tr> <tr> <th>Code</th> <th>Impedance</th> </tr> <tr> <td>78</td> <td>50 Ω</td> </tr> <tr> <td>88</td> <td>75 Ω</td> </tr> </table>	For other coaxial contacts select code from spread sheet		Code	Impedance	78	50 Ω	88	75 Ω	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAT78G80X	3H15W4PAT78G80X
	For other coaxial contacts select code from spread sheet													
	Code	Impedance												
78	50 Ω													
88	75 Ω													
19W1	3H19W1SAT78G80X	3H19W1PAT78G80X												
45W2	3H45W2SAT78G80X	3H45W2PAT78G80X												



## COMBINATION D-SUB CONNECTORS Without contacts

For straight high power, coaxial or  
High voltage contacts

Shell: Steel tin plated  
On request:  
• Brass tin plated or stainless steel  
• M3 thread


Through-hole Ø 3 mm

No. of poles


UL-File

Part No. Socket contact

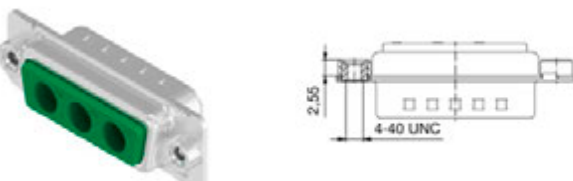
Part No. Plug contact

	3W3	E228329	3003W3SXX99A10X	3003W3PXX99A10X
	5W5		3005W5SXX99A10X	3005W5PXX99A10X
	8W8		3008W8SXX99A10X	3008W8PXX99A10X

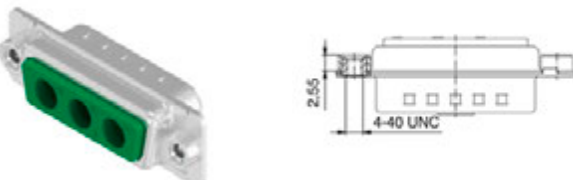
Through-hole Ø 3 mm, coded version

	2W2C	E228329	302W2CSXX99A10X	302W2CPXX99A10X
	3W3C		303W3CSXX99A10X	303W3CPXX99A10X

4-40 UNC threaded insert

	3W3	E228329	3003W3SXX99A30X	3003W3PXX99A30X
	5W5		3005W5SXX99A30X	3005W5PXX99A30X
	8W8		3008W8SXX99A30X	3008W8PXX99A30X


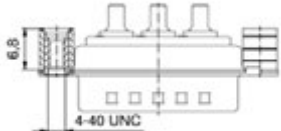
4-40 UNC threaded insert, coded version

	2W2C	E228329	302W2CSXX99A30X	302W2CPXX99A30X
	3W3C		303W3CSXX99A30X	303W3CPXX99A30X


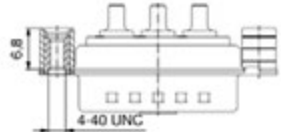
## COMBINATION D-SUB CONNECTORS With high power contacts 20 A

Solder pin, straight

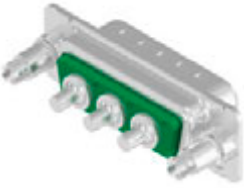
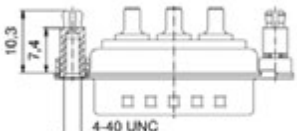
4-40 UNC threaded rear spacer

4-40 UNC threaded rear spacer		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																		
 	<p>For other Power contacts select code from spread sheet</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr><td>68</td><td>20 A</td><td>1.95</td></tr> <tr><td>69</td><td>20 A</td><td>2.60</td></tr> <tr><td>70</td><td>20 A</td><td>2.85</td></tr> <tr><td>71</td><td>30 A</td><td>3.18</td></tr> <tr><td>72</td><td>40 A</td><td>3.75</td></tr> </tbody> </table>	Code	Current rating	Diameter solder pin	68	20 A	1.95	69	20 A	2.60	70	20 A	2.85	71	30 A	3.18	72	40 A	3.75	3W3	E228329	3	3003W3SXX69A50X	3003W3PXX69A50X
		Code	Current rating	Diameter solder pin																				
		68	20 A	1.95																				
69	20 A	2.60																						
70	20 A	2.85																						
71	30 A	3.18																						
72	40 A	3.75																						
5W5	3005W5SXX69A50X	3005W5PXX69A50X																						
8W8	3008W8SXX69A50X	3008W8PXX69A50X																						

4-40 UNC, threaded rear spacer, coded version

4-40 UNC, threaded rear spacer, coded version		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																		
 	<p>For other Power contacts select code from spread sheet</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr><td>68</td><td>20 A</td><td>1.95</td></tr> <tr><td>69</td><td>20 A</td><td>2.60</td></tr> <tr><td>70</td><td>20 A</td><td>2.85</td></tr> <tr><td>71</td><td>30 A</td><td>3.18</td></tr> <tr><td>72</td><td>40 A</td><td>3.75</td></tr> </tbody> </table>	Code	Current rating	Diameter solder pin	68	20 A	1.95	69	20 A	2.60	70	20 A	2.85	71	30 A	3.18	72	40 A	3.75	2W2C	E228329	3	302W2CSXX69A50X	302W2CPXX69A50X
		Code	Current rating	Diameter solder pin																				
68	20 A	1.95																						
69	20 A	2.60																						
70	20 A	2.85																						
71	30 A	3.18																						
72	40 A	3.75																						
3W3C	303W3CSXX69A50X	303W3CPXX69A50X																						

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

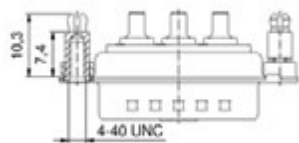
4-40 UNC threaded rear spacer clip for PCB 1.6 mm		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																		
 	<p>For other Power contacts select code from spread sheet</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr><td>68</td><td>20 A</td><td>1.95</td></tr> <tr><td>69</td><td>20 A</td><td>2.60</td></tr> <tr><td>70</td><td>20 A</td><td>2.85</td></tr> <tr><td>71</td><td>30 A</td><td>3.18</td></tr> <tr><td>72</td><td>40 A</td><td>3.75</td></tr> </tbody> </table>	Code	Current rating	Diameter solder pin	68	20 A	1.95	69	20 A	2.60	70	20 A	2.85	71	30 A	3.18	72	40 A	3.75	3W3	E228329	3	3003W3SXX69E20X	3003W3PXX69E20X
		Code	Current rating	Diameter solder pin																				
		68	20 A	1.95																				
69	20 A	2.60																						
70	20 A	2.85																						
71	30 A	3.18																						
72	40 A	3.75																						
5W5	3005W5SXX69E20X	3005W5PXX69E20X																						
8W8	3008W8SXX69E20X	3008W8PXX69E20X																						

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## COMBINATION D-SUB CONNECTORS With high power contacts 20 A

Solder pin, straight

4-40 UNC threaded rear spacer clip for PCB 1.6 mm, coded version



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

No. of poles

UL-File

Quality class

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Part No. Socket contact Part No. Plug contact

2W2C

E228329

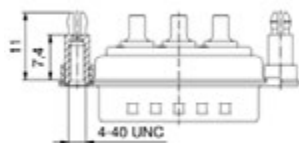
3

302W2CSXX69E20X 302W2CPXX69E20X

3W3C

303W3CSXX69E20X 303W3CPXX69E20X

4-40 UNC threaded rear spacer clip for PCB 2.3 mm



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
69	20 A	2,60
71	30 A	3,18
72	40 A	3,75

3W3

E228329

3

3003W3SXX69E40X 3003W3PXX69E40X

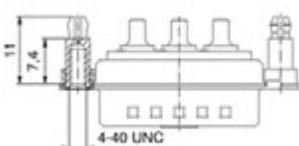
5W5

3005W5SXX69E40X 3005W5PXX69E40X

8W8

3008W8SXX69E40X 3008W8PXX69E40X

4-40 UNC threaded rear spacer clip for PCB 2.3 mm, coded version



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
69	20 A	2,60
71	30 A	3,18
72	40 A	3,75

2W2C

E228329

3

302W2CSXX69E40X 302W2CPXX69E40X

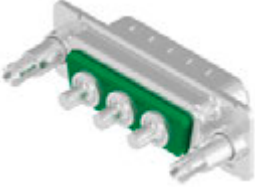
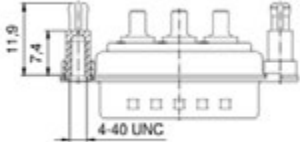
3W3C

303W3CSXX69E40X 303W3CPXX69E40X

## COMBINATION D-SUB CONNECTORS With high power contacts 20 A

Solder pin, straight

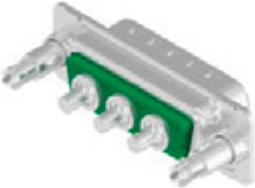
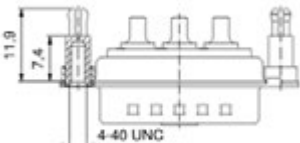
4-40 UNC threaded rear spacer clip for PCB 3.2 mm

4-40 UNC threaded rear spacer clip for PCB 3.2 mm		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	3W3	E228329	3	3003W3SXX69E60X	3003W3PXX69E60X	
	5W5			3005W5SXX69E60X	3005W5PXX69E60X	
	8W8			3008W8SXX69E60X	3008W8PXX69E60X	

For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
69	20 A	2,60
71	30 A	3,18
72	40 A	3,75

4-40 UNC threaded rear spacer clip for PCB 3.2 mm, coded version

4-40 UNC threaded rear spacer clip for PCB 3.2 mm, coded version		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	2W2C	E228329	3	302W2CSXX69E60X	302W2CPXX69E60X	
	3W3C			303W3CSXX69E60X	303W3CPXX69E60X	

For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
69	20 A	2,60
71	30 A	3,18
72	40 A	3,75

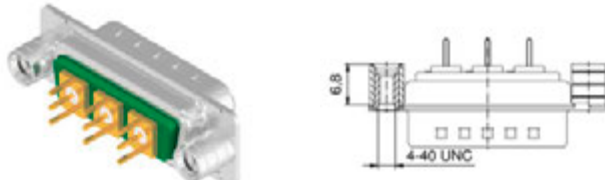
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**COMBINATION D-SUB CONNECTORS**  
With coaxial contacts 50 Ω

Solder pin, straight

4-40 UNC threaded rear spacer

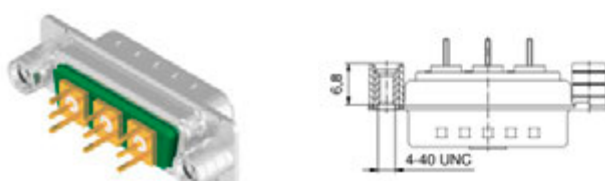
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class J  $\geq$  500 mating cycles  
• M3 thread

4-40 UNC threaded rear spacer		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	3W3	E228329	3	3003W3SXX76A50X	3003W3PXX76A50X	
	5W5			3005W5SXX76A50X	3005W5PXX76A50X	
	8W8			3008W8SXX76A50X	3008W8PXX76A50X	

For other coaxial contacts select code from spread sheet	
Code	Impedance
76	50 Ω
86	75 Ω

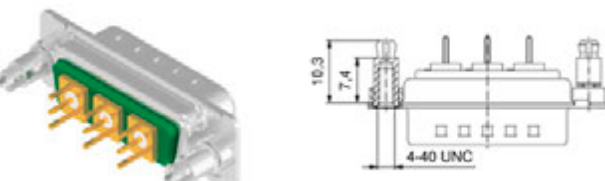
4-40 UNC, threaded rear spacer, coded version

	2W2C	E228329	3	302W2CSXX76A50X	302W2CPXX76A50X
	3W3C			303W3CSXX76A50X	303W3CPXX76A50X

For other coaxial contacts select code from spread sheet	
Code	Impedance
76	50 Ω
86	75 Ω

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

	3W3	E228329	3	3003W3SXX76E20X	3003W3PXX76E20X
	5W5			3005W5SXX76E20X	3005W5PXX76E20X
	8W8			3008W8SXX76E20X	3008W8PXX76E20X

For other coaxial contacts select code from spread sheet	
Code	Impedance
76	50 Ω
86	75 Ω

## COMBINATION D-SUB CONNECTORS With coaxial contacts 50 Ω

Solder pin, straight

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class J >= 500 mating cycles  
• M3 thread

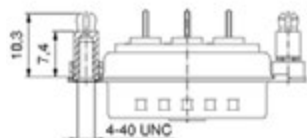
4-40 UNC threaded rear spacer clip for PCB 1.6 mm, coded version

No. of poles

UL-File

Quality class

Part No. Socket contact Part No. Plug contact



2W2C

E228329

3

302W2CSXX76E20X

302W2CPXX76E20X

For other coaxial contacts select code from spread sheet

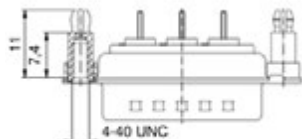
Code	Impedance
76	50 Ω
86	75 Ω

3W3C

303W3CSXX76E20X

303W3CPXX76E20X

4-40 UNC threaded rear spacer clip for PCB 2.3 mm



3W3

E228329

3

3003W3SXX76E40X

3003W3PXX76E40X

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

5W5

3005W5SXX76E40X

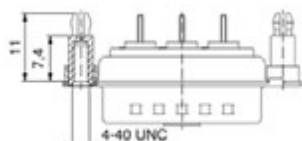
3005W5PXX76E40X

8W8

3008W8SXX76E40X

3008W8PXX76E40X

4-40 UNC threaded rear spacer clip for PCB 2.3 mm, coded version



2W2C

E228329

3

302W2CSXX76E40X

302W2CPXX76E40X

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

3W3C

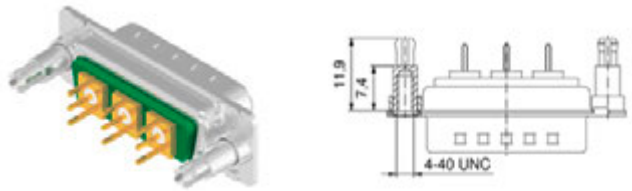
303W3CSXX76E40X

303W3CPXX76E40X

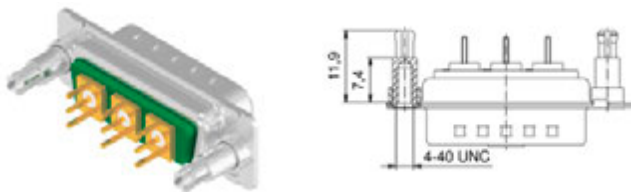
**COMBINATION D-SUB CONNECTORS**  
With coaxial contacts 50 Ω

Solder pin, straight

4-40 UNC threaded rear spacer clip for PCB 3.2 mm

		No. of poles	UL-File	Quality class	Part No. Socket contact		Part No. Plug contact						
For other coaxial contacts select code from spread sheet <table border="1"> <thead> <tr> <th>Code</th> <th>Impedance</th> </tr> </thead> <tbody> <tr> <td>76</td> <td>50 Ω</td> </tr> <tr> <td>86</td> <td>75 Ω</td> </tr> </tbody> </table>	Code	Impedance	76	50 Ω	86	75 Ω	3W3	E228329	3	3003W3SXX76E60X	3003W3PXX76E60X		
	Code	Impedance											
	76	50 Ω											
86	75 Ω												
5W5	3005W5SXX76E60X	3005W5PXX76E60X											
8W8	3008W8SXX76E60X	3008W8PXX76E60X											

4-40 UNC threaded rear spacer clip for PCB 3.2 mm, coded version


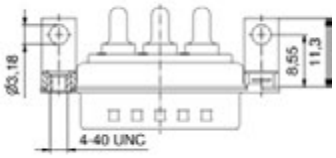
		No. of poles	UL-File	Quality class	Part No. Socket contact		Part No. Plug contact						
For other coaxial contacts select code from spread sheet <table border="1"> <thead> <tr> <th>Code</th> <th>Impedance</th> </tr> </thead> <tbody> <tr> <td>76</td> <td>50 Ω</td> </tr> <tr> <td>86</td> <td>75 Ω</td> </tr> </tbody> </table>	Code	Impedance	76	50 Ω	86	75 Ω	2W2C	E228329	3	302W2CSXX76E60X	302W2CPXX76E60X		
	Code	Impedance											
76	50 Ω												
86	75 Ω												
3W3C	303W3CSXX76E60X	303W3CPXX76E60X											

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class J >= 500 mating cycles  
• M3 thread

## COMBINATION D-SUB CONNECTORS With high power contacts 20 A

Solder pin, angled  
Short metal bracket


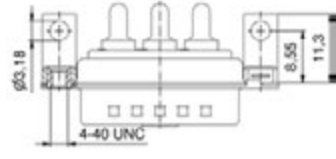
4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	3W3	E228329	3	3003W3SXX73N20X	3003W3PXX73N20X	
	5W5			3005W5SXX73N20X	3005W5PXX73N20X	
	8W8			3008W8SXX73N20X	3008W8PXX73N20X	

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread


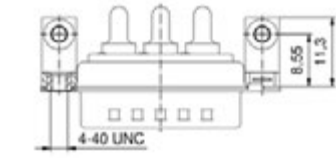
For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

4-40 UNC threaded insert, coded version

4-40 UNC threaded insert, coded version		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	2W2C	E228329	3	302W2CSXX73N20X	302W2CPXX73N20X	
	3W3C			303W3CSXX73N20X	303W3CPXX73N20X	

For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	3W3	E228329	3	3003W3SXX73N40X	3003W3PXX73N40X	
	5W5			3005W5SXX73N40X	3005W5PXX73N40X	
	8W8			3008W8SXX73N40X	3008W8PXX73N40X	

For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

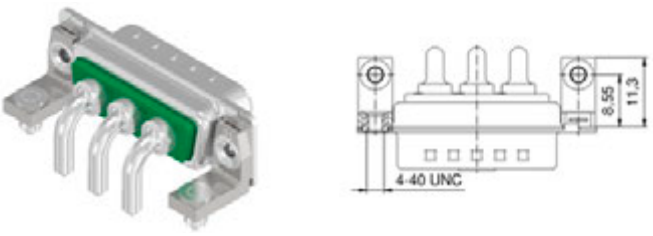


## COMBINATION D-SUB CONNECTORS With high power contacts 20 A

Solder pin, angled  
Short metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded Version

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

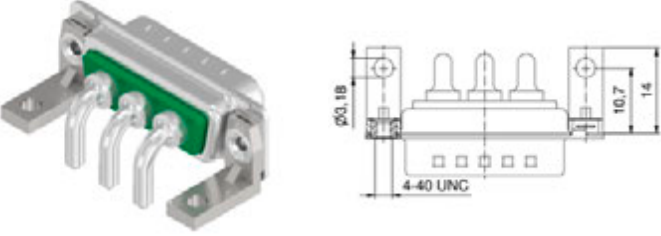
Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded Version		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	2W2C	E228329	3	302W2CSXX73N40X	302W2CPXX73N40X	
	3W3C			303W3CSXX73N40X	303W3CPXX73N40X	

For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

Solder pin, angled  
Long metal bracket

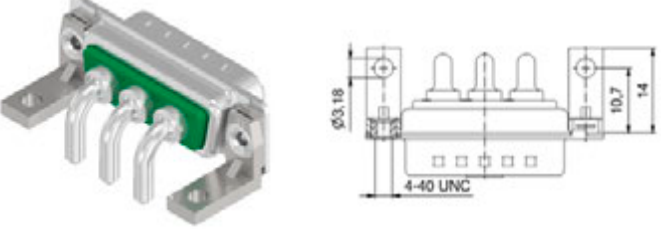
4-40 UNC threaded insert

	3W3	E228329	3	3003W3SXX73G20X	3003W3PXX73G20X
	5W5			3005W5SXX73G20X	3005W5PXX73G20X
	8W8			3008W8SXX73G20X	3008W8PXX73G20X

For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

4-40 UNC threaded insert, coded version

	2W2C	E228329	3	302W2CSXX73G20X	302W2CPXX73G20X
	3W3C			303W3CSXX73G20X	303W3CPXX73G20X


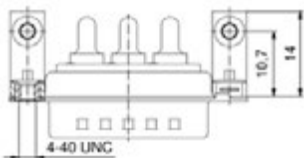
  

For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

**COMBINATION D-SUB CONNECTORS**  
With high power contacts 20 A

Solder pin, angled  
Long metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert


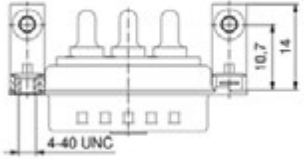
Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		3W3	E228329	3	3003W3SXX73G40X	3003W3PXX73G40X
		5W5			3005W5SXX73G40X	3005W5PXX73G40X
		8W8			3008W8SXX73G40X	3008W8PXX73G40X

For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded Version

 		2W2C	E228329	3	302W2CSXX73G40X	302W2CPXX73G40X
		3W3C			303W3CSXX73G40X	303W3CPXX73G40X

For other Power contacts select code from spread sheet

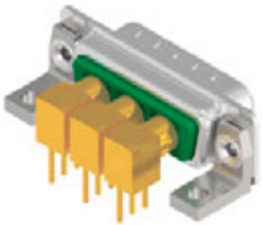
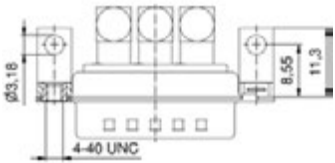
Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

**COMBINATION D-SUB CONNECTORS**  
With coaxial contacts 50 Ω

Solder pin, angled  
Short metal bracket

4-40 UNC threaded insert

No. of poles		UL-File	Quality class	Part No. Socket contact		Part No. Plug contact	
3W3				E228329	3	3003W3SXX78N20X	3003W3PXX78N20X
5W5		3005W5SXX78N20X	3005W5PXX78N20X				
8W8		3008W8SXX78N20X	3008W8PXX78N20X				

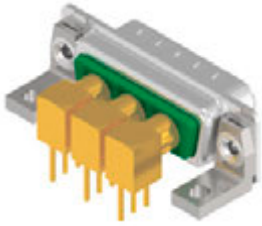
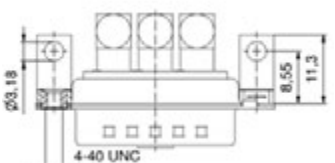



For other coaxial contacts select code from spread sheet

Code	Impedance
78	50 Ω
88	75 Ω

4-40 UNC threaded insert, coded version

2W2C		E228329	3	302W2CSXX78N20X	302W2CPXX78N20X		
3W3C				303W3CSXX78N20X	303W3CPXX78N20X		

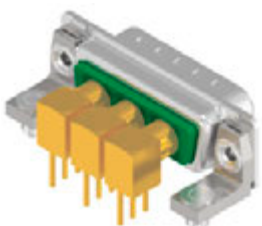
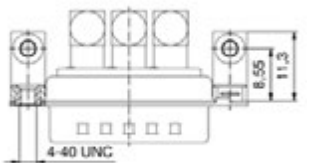



For other coaxial contacts select code from spread sheet

Code	Impedance
78	50 Ω
88	75 Ω

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

3W3		E228329	3	3003W3SXX78N40X	3003W3PXX78N40X		
5W5				3005W5SXX78N40X	3005W5PXX78N40X		
8W8				3008W8SXX78N40X	3008W8PXX78N40X		

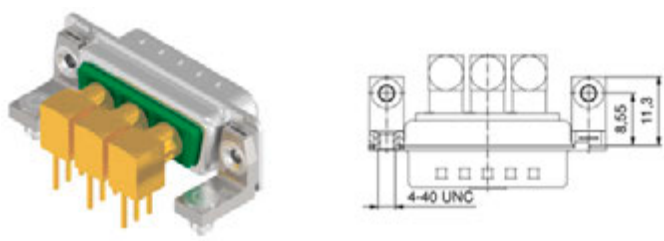
For other coaxial contacts select code from spread sheet

Code	Impedance
78	50 Ω
88	75 Ω

## COMBINATION D-SUB CONNECTORS With coaxial contacts 50 Ω

Solder pin, angled  
Short metal bracket

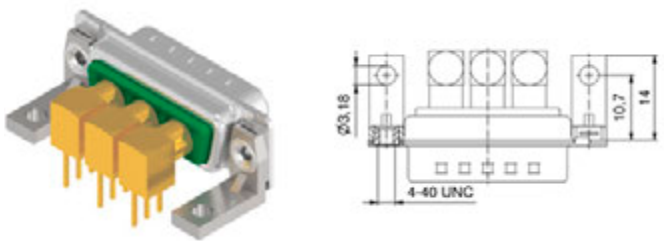
Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded Version

		No. of poles	UL-File	Quality class	Part No.							
					Socket contact	Plug contact						
<p>For other coaxial contacts select code from spread sheet</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Impedance</th> </tr> </thead> <tbody> <tr> <td>78</td> <td>50 Ω</td> </tr> <tr> <td>88</td> <td>75 Ω</td> </tr> </tbody> </table>		Code	Impedance	78	50 Ω	88	75 Ω	2W2C	E228329	3	302W2CSXX78N40X	302W2CPXX78N40X
Code	Impedance											
78	50 Ω											
88	75 Ω											
		3W3C	303W3CSXX78N40X	303W3CPXX78N40X								

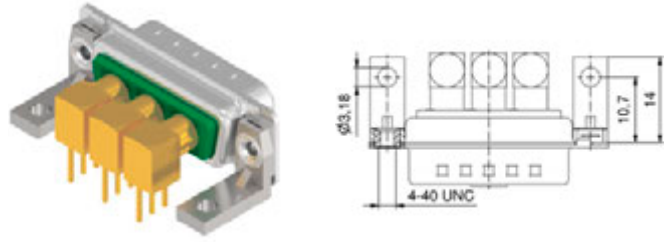
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class J >= 500 mating cycles  
• M3 thread

Solder pin, angled  
Long metal bracket

4-40 UNC threaded insert

		No. of poles	UL-File	Quality class	Part No.							
					Socket contact	Plug contact						
<p>For other coaxial contacts select code from spread sheet</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Impedance</th> </tr> </thead> <tbody> <tr> <td>78</td> <td>50 Ω</td> </tr> <tr> <td>88</td> <td>75 Ω</td> </tr> </tbody> </table>		Code	Impedance	78	50 Ω	88	75 Ω	3W3	E228329	3	3003W3SXX78G20X	3003W3PXX78G20X
Code	Impedance											
78	50 Ω											
88	75 Ω											
		5W5	3005W5SXX78G20X	3005W5PXX78G20X								
		8W8	3008W8SXX78G20X	3008W8PXX78G20X								

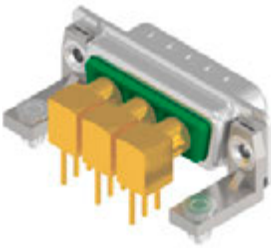
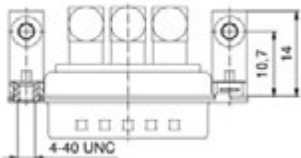
4-40 UNC threaded insert, coded version

		No. of poles	UL-File	Quality class	Part No.							
					Socket contact	Plug contact						
<p>For other coaxial contacts select code from spread sheet</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Impedance</th> </tr> </thead> <tbody> <tr> <td>78</td> <td>50 Ω</td> </tr> <tr> <td>88</td> <td>75 Ω</td> </tr> </tbody> </table>		Code	Impedance	78	50 Ω	88	75 Ω	2W2C	E228329	3	302W2CSXX78G20X	302W2CPXX78G20X
Code	Impedance											
78	50 Ω											
88	75 Ω											
		3W3C	303W3CSXX78G20X	303W3CPXX78G20X								

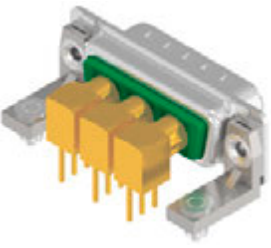
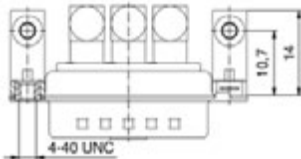
**COMBINATION D-SUB CONNECTORS**  
With coaxial contacts 50 Ω

Solder pin, angled  
Long metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 		No. of poles	UL-File	Quality class	Part No. Socket contact		Part No. Plug contact							
For other coaxial contacts select code from spread sheet <table border="1"> <thead> <tr> <th>Code</th> <th>Impedance</th> </tr> </thead> <tbody> <tr> <td>78</td> <td>50 Ω</td> </tr> <tr> <td>88</td> <td>75 Ω</td> </tr> </tbody> </table>		Code	Impedance	78	50 Ω	88	75 Ω	3W3	E228329	3	3003W3SXX78G40X	3003W3PXX78G40X		
Code	Impedance													
78	50 Ω													
88	75 Ω													
		5W5	3005W5SXX78G40X	3005W5PXX78G40X										
		8W8	3008W8SXX78G40X	3008W8PXX78G40X										

Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded Version

 		No. of poles	UL-File	Quality class	Part No. Socket contact		Part No. Plug contact							
For other coaxial contacts select code from spread sheet <table border="1"> <thead> <tr> <th>Code</th> <th>Impedance</th> </tr> </thead> <tbody> <tr> <td>78</td> <td>50 Ω</td> </tr> <tr> <td>88</td> <td>75 Ω</td> </tr> </tbody> </table>		Code	Impedance	78	50 Ω	88	75 Ω	2W2C	E228329	3	302W2CSXX78G40X	302W2CPXX78G40X		
Code	Impedance													
78	50 Ω													
88	75 Ω													
		3W3C	303W3CSXX78G40X	303W3CPXX78G40X										

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class J >= 500 mating cycles  
• M3 thread

## COMBINATION D-SUB CONNECTORS Without contacts

Crimp body  
AWG 20-24 and AWG 26-28


Through-hole  $\varnothing$  3 mm

Shell: Steel tin plated  
On request:  
• Brass tin plated or stainless steel  
• M3 thread

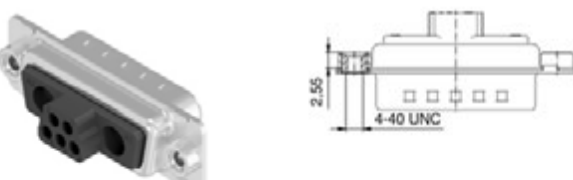
No. of poles

UL-File

Part No. Socket contact    Part No. Plug contact

	5W1	E228329	3005W1SXX99A10X	3005W1PXX99A10X
	7W2		3007W2SXX99A10X	3007W2PXX99A10X
	9W4		3009W4SXX99A10X	3009W4PXX99A10X
	11W1		3011W1SXX99A10X	3011W1PXX99A10X
	13W3		3013W3SXX99A10X	3013W3PXX99A10X
	13W6		3013W6SXX99A10X	3013W6PXX99A10X
	17W2		3017W2SXX99A10X	3017W2PXX99A10X
	17W5		3017W5SXX99A10X	3017W5PXX99A10X
	21W1		3021W1SXX99A10X	3021W1PXX99A10X
	24W7		3024W7SXX99A10X	3024W7PXX99A10X
	25W3		3025W3SXX99A10X	3025W3PXX99A10X
	27W2		3027W2SXX99A10X	3027W2PXX99A10X
	36W4		3036W4SXX99A10X	3036W4PXX99A10X
	43W2		3043W2SXX99A10X	3043W2PXX99A10X
	47W1		3047W1SXX99A10X	3047W1PXX99A10X
	21WA4		321WA4SXX99A10X	321WA4PXX99A10X

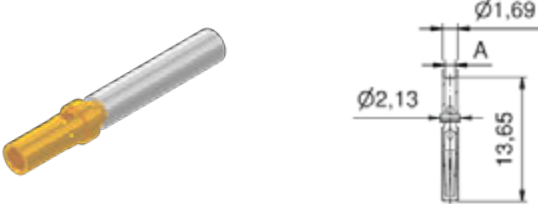
4-40 UNC threaded insert

	5W1	E228329	3005W1SXX99A30X	3005W1PXX99A30X
	7W2		3007W2SXX99A30X	3007W2PXX99A30X
	9W4		3009W4SXX99A30X	3009W4PXX99A30X
	11W1		3011W1SXX99A30X	3011W1PXX99A30X
	13W3		3013W3SXX99A30X	3013W3PXX99A30X
	13W6		3013W6SXX99A30X	3013W6PXX99A30X
	17W2		3017W2SXX99A30X	3017W2PXX99A30X
	17W5		3017W5SXX99A30X	3017W5PXX99A30X
	21W1		3021W1SXX99A30X	3021W1PXX99A30X
	24W7		3024W7SXX99A30X	3024W7PXX99A30X
	25W3		3025W3SXX99A30X	3025W3PXX99A30X
	27W2		3027W2SXX99A30X	3027W2PXX99A30X
	36W4		3036W4SXX99A30X	3036W4PXX99A30X
	43W2		3043W2SXX99A30X	3043W2PXX99A30X
	47W1		3047W1SXX99A30X	3047W1PXX99A30X
	21WA4		321WA4SXX99A30X	321WA4PXX99A30X


## COMBINATION D-SUB CONNECTORS Contacts

### Signal contacts crimp

#### Socket contact closed entry

	AWG	Current rating [A]	ØA [mm]	Quality class	UL-File	Part No.
	20-24	75 (UL) / 5 (CSA VDE)	1.12	C	E228329	132C15019X
	24-28	75 (UL) / 5 (CSA VDE)	0.6			132C15029X


#### Socket contact

	AWG	Current rating [A]	ØA [mm]	Quality class	UL-File	Part No.
	20-24	75 (UL) / 5 (CSA VDE)	1.12	A	E228329	162A18709X
	24-28	75 (UL) / 5 (CSA VDE)	0.64			162A18719X

## COMBINATION D-SUB CONNECTORS Contacts

### Signal contacts crimp

#### Plug contact

	AWG	Current rating [A]	ØA [mm]	Quality class	UL-File	Part No.
	20-24	75 (UL) / 5 (CSA VDE)	1.1	A	E228329	131A15019X
	24-28	75 (UL) / 5 (CSA VDE)	0.65			131A15029X

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles

## COMBINATION D-SUB CONNECTORS Contacts

High power contacts  
Solder cup, straight

Socket contact

Socket contact		AWG	Current rating [A]	Code use with part no. creator	Ø Termination A= [mm]	Quality class	UL-File	Part No.
	16-20	10	41	18	C	E228329	132C10019X	
			61				A	132A10019X
	12-14	20	42	2.7	C		132C10029X	
			62		A		132A10029X	
	10-12	30	43	3.5	C		132C10039X	
			63		A		132A10039X	
	8-10	40	44	4.8	C		132C10049X	
			64		A		132A10049X	

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

Plug contact

Plug contact		AWG	Current rating [A]	Code use with part no. creator	Ø Termination A= [mm]	Quality class	UL-File	Part No.
	16-20	10	41	1.8	C	E228329	131C10019X	
			61				A	131A10019X
	12-14	20	42	2.7	C		131C10029X	
			62		A		131A10029X	
	10-12	30	43	3.5	C		131C10039X	
			63		A		131A10039X	
	8-10	40	44	4.8	C		131C10049X	
			64		A		131A10049X	

## COMBINATION D-SUB CONNECTORS Contacts

High power contacts  
Solder cup, straight

Plug contact, premating

Plug contact, premating		AWG	Current rating [A]	Code use with part no. creator	Ø Termination A= [mm]	Quality class	UL-File	Part No.
	16-20	10	1.8	C	E228329	131C10119X		
	12-14	20	2.7			131C10129X		
	10-12	30	3.5			131C10139X		
	8-10	40	4.8			131C10149X		

Quality class 1 (C) = 500 mating cycles  
On request:  
• Quality class 3 (A) = 50 mating cycles

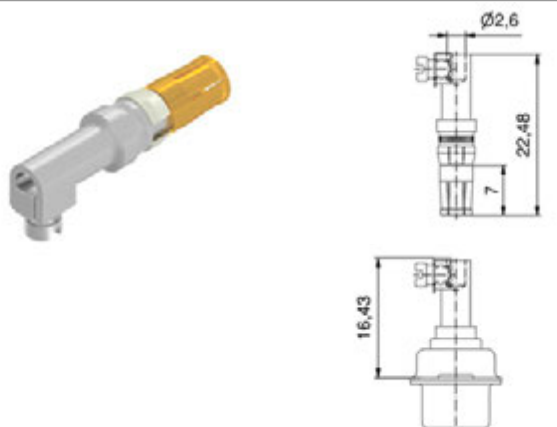


## COMBINATION D-SUB CONNECTORS Contacts

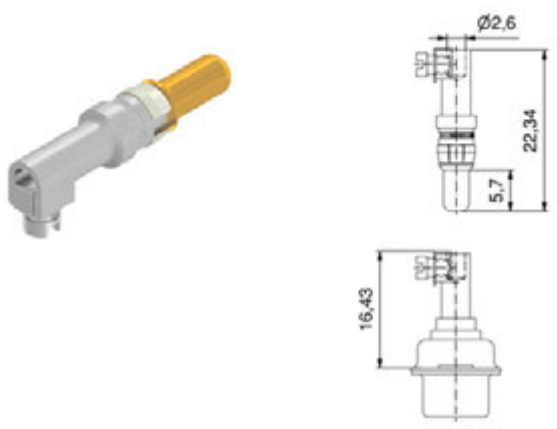
### High power contacts Screw termination

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

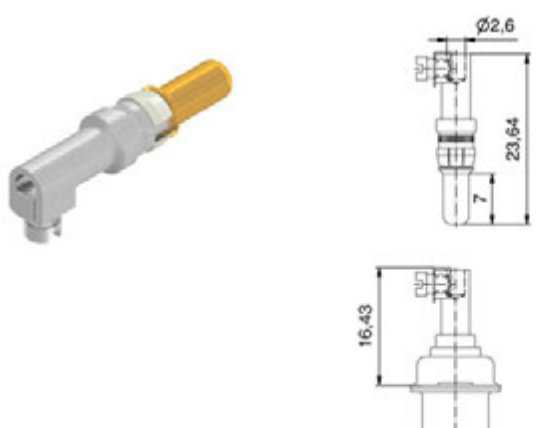
#### Socket contact

	AWG	Current rating [A]	UL-File	Part No.
	14	20	E228329	C 132C36009X
				A 132A36009X

#### Plug contact

	14	20	E228329	C 131C36009X
				A 131A36009X

#### Plug contact, premating

	14	20	C E228329	131C36109X
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## COMBINATION D-SUB CONNECTORS Contacts

### High power contacts Crimp, straight

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

#### Socket contact

Socket contact		AWG	Current rating [A]	$\emptyset$ Termination A= [mm]	Quality class	UL-File	Part No.
	16-20	10	1.7	C	E228329	132C11019X	
				A		132A11019X	
	12-14	20	2.6	C		132C11029X	
				A		132A11029X	
	10-12	30	3.7	C		132C11039X	
				A		132A11039X	
	8-10	40	4.6	C		132C11049X	
				A		132A11049X	

#### Plug contact

	16-20	10	1.7	C	E228329	131C11019X
				A		131A11019X
	12-14	20	2.6	C		131C11029X
				A		131A11029X
	10-12	30	3.7	C		131C11039X
				A		131A11039X
	8-10	40	4.6	C		131C11049X
				A		131A11049X

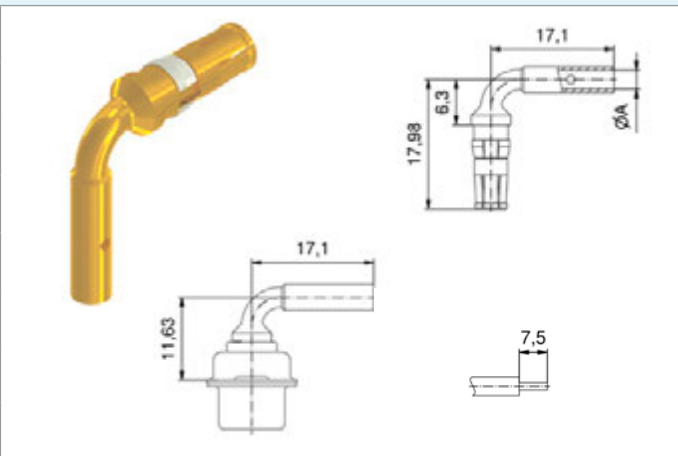
#### Plug contact, prematung

	16-20	10	1.7	C	E228329	131C11119X
	12-14	20	2.6			131C11129X
	10-12	30	3.7			131C11139X
	8-10	40	4.6			131C11149X

## COMBINATION D-SUB CONNECTORS Contacts

High power contacts  
Crimp, angled

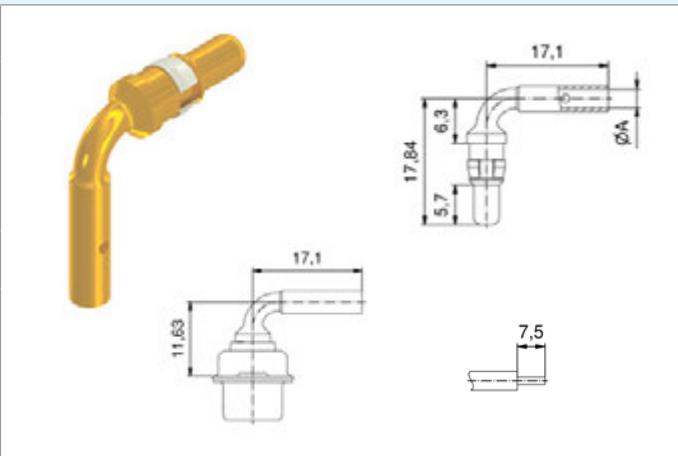
Socket contact



AWG	Current rating [A]	Ø Termination A= [mm]	Quality class	UL-File	Part No.
16-20	10	1.7	C	E228329	132C16019X
			A		132A16019X
12-14	20	2.6	C		132C16029X
			A		132A16029X
10-12	30	3.7	C		132C16039X
			A		132A16039X
8-10	40	4.6	C		132C16049X
			A		132A16049X

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

Plug contact

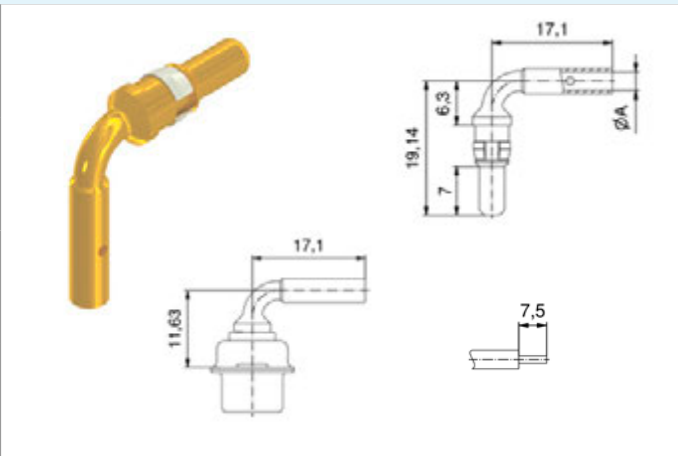


16-20	10	1.7	C	E228329	131C16019X
			A		131A16019X
12-14	20	2.6	C		131C16029X
			A		131A16029X
10-12	30	3.7	C		131C16039X
			A		131A16039X
8-10	40	4.6	C		131C16049X
			A		131A16049X

## COMBINATION D-SUB CONNECTORS Contacts

High power contacts  
Crimp, angled

Plug contact, prematemg



AWG	Current rating [A]	Ø Termination A= [mm]	Quality class	UL-File	Part No.
16-20	10	1.7	C	E228329	131C16119X
12-14	20	2.6			131C16129X
16-20	30	3.7			131C16139X
8-10	40	4.6			131C16149X

Quality class 1 (C) = 500 mating cycles  
On request:  
• Quality class 3 (A) = 50 mating cycles

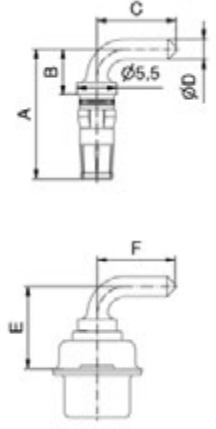
# COMBINATION D-SUB CONNECTORS Contacts

High power contacts  
Solder pin, angled

Socket contact

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

Shell size	Current rating [A]	Code use with part no. creator	Hole diameter of PCB [mm]	Quality class	UL-File	Part No.	
1-4	15	55	2.3	C	E228329	132C13009X	
		59		A		132A13009X	
	20	56	3.2	C		132C13019X	
		73		A		132A13019X	
	30	57	3.6	C		132C13029X	
		74		A		132A13029X	
	40	58	4.1	C		132C13039X	
		75		A		132A13039X	
	5	20	66	3.2		C	132C13060X
			81			A	132A13060X
		30	67	3.6		C	132C13070X
			82			A	132A13070X
65			C		132C13059X		
85			A		132A13059X		
40		60	4.1	C	132C13049X		
		77		A	132A13049X		



Shellsize	Current rating [A]	Termination	A	B	C	D Ø	E	F
1-4	15	55/59	14.68	3.00	10.50	1.90	8.35	10.50
1-4	20	56/73	17.98	6.30	11.00	2.85	11.65	11.00
1-4	30	57/74	26.68	15.00	9.50	3.20	20.35	9.50
1-4	40	58/75	17.98	6.30	11.00	3.75	11.65	11.00
5	20	66/81	20.53	8.85	14.00	2.85	14.20	12.58
5	30	67/82	20.53	8.85	14.00	3.20	14.20	12.58
5	30	65/85	26.68	15.00	13.50	3.20	20.35	12.08
5	40	60/77	20.53	8.85	14.00	3.75	14.20	12.58

## COMBINATION D-SUB CONNECTORS Contacts

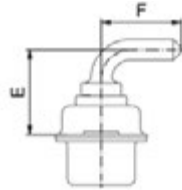
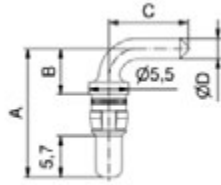
High power contacts  
Solder pin, angled

Plug contact

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

Shell size	Current rating [A]	Code use with part no. creator	Hole diameter of PCB [mm]	Quality class	UL-File
1-4	15	55	23	C	E228329
		59		A	
	20	56	3.2	C	
		73		A	
	30	57	3.6	C	
		74		A	
	40	58	4.1	C	
		75		A	
5	20	66	3.2	C	
		81		A	
	30	67	3.6	C	
		82		A	
		65		C	
		85		A	
	40	60	4.1	C	
		77		A	

Part No.
131C13009X
131A13009X
131C13019X
131A13019X
131C13029X
131A13029X
131C13039X
131A13039X
131C13060X
131A13060X
131C13070X
131A13070X
131C13059X
131A13059X
131C13049X
131A13049X



Shellsize	Current rating [A]	Termination	A	B	C	D Ø	E	F
1-4	15	55/59	14.54	3.00	10.50	1.90	8.35	10.50
1-4	20	56/73	17.84	6.30	11.00	2.85	11.65	11.00
1-4	30	57/74	26.54	15.00	9.50	3.20	20.35	9.50
1-4	40	58/75	17.84	6.30	11.00	3.75	11.65	11.00
5	20	66/81	20.39	8.85	14.00	2.85	14.20	12.58
5	30	67/82	20.39	8.85	14.00	3.20	14.20	12.58
5	30	65/85	26.54	15.00	13.50	3.20	20.35	12.08
5	40	60/77	20.39	8.85	14.00	3.75	14.20	12.58

## COMBINATION D-SUB CONNECTORS Contacts

High power contacts  
Solder pin, angled

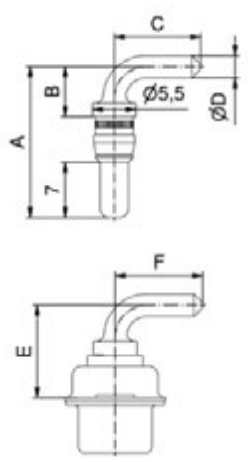
Plug contact, premating

Quality class 1 (C) = 500 mating cycles  
On request:  
• Quality class 3 (A) = 50 mating cycles

Shell size	Current rating [A]	Hole diameter of PCB [mm]	Quality class	Part No.
14	15	23	C	131C13109X
	20	32		131C13119X
	30	36		131C13129X
	40	4.1		131C13139X
5	20	3.2		131C13160X
	30	3.6		131C13170X
	40	4.1		131C13159X
	40	4.1		131C13149X

Shellsize	Current rating [A]	A	B	C	D Ø	E	F
1-4	15	15.84	3.00	10.50	1.90	8.35	10.50
1-4	20	19.14	6.30	11.00	2.85	11.65	11.00
1-4	30	27.84	15.00	9.50	3.20	20.35	9.50
1-4	40	19.14	6.30	11.00	3.75	11.65	11.00
5	20	21.65	8.85	14.00	2.85	14.20	12.58
5	30	21.65	8.85	14.00	3.20	14.20	12.58
5	30	27.84	15.00	13.50	3.20	20.35	12.08
5	40	21.65	8.85	14.00	3.75	14.20	12.58



## COMBINATION D-SUB CONNECTORS Contacts


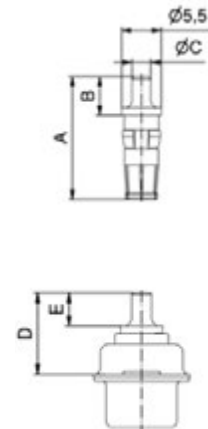
High power contacts  
Solder pin, straight

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

### Socket contact


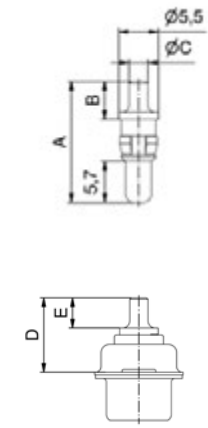
Shell size  
Current rating [A]  
Code use with part no. creator  
Hole diameter of PCB [mm]  
Quality class  
UL-File

Part No.

 	1-5	20	23	E228329	48	C	132C12019X
					68	A	132A12019X
					49	C	132C12029X
					69	A	132A12029X
					50	C	132C12039X
					70	A	132A12039X
					51	C	132C12049X
					71	A	132A12049X
					52	C	132C12059X
					72	A	132A12059X

Current rating [A]	Termination	A	B	C Ø	D	E
20	48/68	15.98	4.60	1.95	9.65	3.80
20	49/69	16.98	5.30	2.60	10.65	4.30
20	50/70	16.38	4.70	2.85	10.05	3.70
30	51/71	19.18	7.50	3.18	12.85	6.70
40	52/72	17.43	5.75	3.75	11.10	4.75

### Plug contact

 	1-5	20	23	E228329	48	C	131C12019X
					68	A	131A12019X
					49	C	131C12029X
					69	A	131A12029X
					50	C	131C12039X
					70	A	131A12039X
					51	C	131C12049X
					71	A	131A12049X
					52	C	131C12059X
					72	A	131A12059X

Current rating [A]	Termination	A	B	C Ø	D	E
20	48/68	15.84	4.60	1.95	9.65	3.80
20	49/69	16.84	5.30	2.60	10.65	4.30
20	50/70	16.24	4.70	2.85	10.05	3.70
30	51/71	19.04	7.50	3.18	12.85	6.70
40	52/72	17.29	5.75	3.75	11.10	4.75

## COMBINATION D-SUB CONNECTORS Contacts

High power contacts  
Solder pin, straight

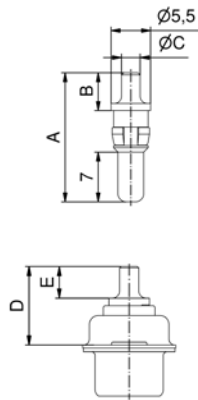
Plug contact, premating

Quality class 1 (C) = 500 mating cycles  
On request:  
• Quality class 3 (A) = 50 mating cycles

Shell size	Current rating [A]	Hole diameter of PCB [mm]	Quality class	Part No.
1-5	20	23	C	131C12119X
		30		131C12129X
		32		131C12139X
	30	131C12149X		
	40	131C12159X		

Current rating [A]	A	B	C Ø	D	E
20	17.14	4.60	1.95	9.65	3.80
20	18.14	5.30	2.60	10.65	4.30
20	17.54	4.70	2.85	10.05	3.70
30	20.34	7.50	3.18	12.85	6.70
40	18.59	5.75	3.75	11.10	4.75





# COMBINATION D-SUB CONNECTORS Contacts

High power contacts  
Press-fit version, straight

Quality class 1 (C) = 500 mating cycles  
On request:  
• Quality class 3 (A) = 50 mating cycles

## Socket contact

Shell size	Current rating [A]	Code use with part no. creator	Hole diameter of PCB [mm]	Quality class	UL-File	Part No.
1-5	30	P1	3.11	C	E228329	132C00229A
		P2	3.25			132C00299A
		P4	3.2			132C19019X

Current rating [A]	Termination	A	B	C $\pm 0.03$	D min.	D max.
30	P1	16.48	4.80	3.13	2.96	3.11
30	P2	16.48	4.80	3.27	3.10	3.25
30	P3	16.08	4.40	3.22	3.02	3.20

## Plug contact

Shell size	Current rating [A]	Code use with part no. creator	Hole diameter of PCB [mm]	Quality class	UL-File	Part No.
1-5	30	P1	3.11	C	E228329	131C00319A
		P2	3.25			131C00389A
		P4	3.2			131C19019X

Current rating [A]	Termination	A	B	C $\pm 0.03$	D min.	D max.
30	P1	16.34	4.80	3.13	2.96	3.11
30	P2	16.34	4.80	3.27	3.10	3.25
30	P3	15.94	4.40	3.22	3.02	3.20

## COMBINATION D-SUB CONNECTORS Contacts

High voltage contacts  
Solder termination, straight

Quality class J  $\geq$  500 mating cycles

Socket contact

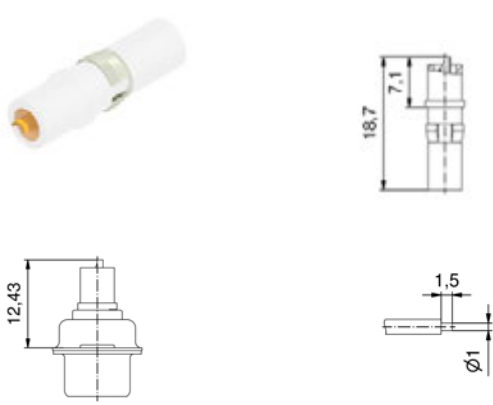
AWG

Working voltage max. [kV]

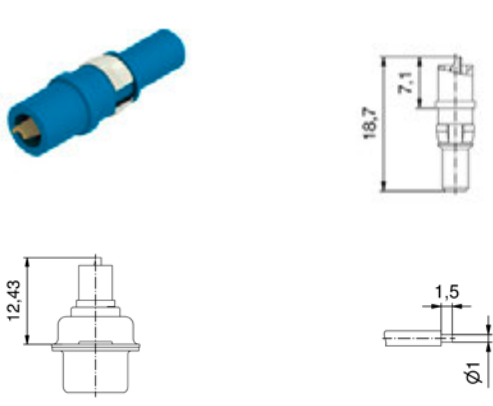
Quality class

UL-File

Part No.

	20	2.8	J	E228329	132J14019X
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Plug contact

	20	2.8	J	E228329	131J14019X
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## COMBINATION D-SUB CONNECTORS Contacts

High voltage contacts  
Solder termination, angled

Quality class J  $\geq$  500 mating cycles

Socket contact

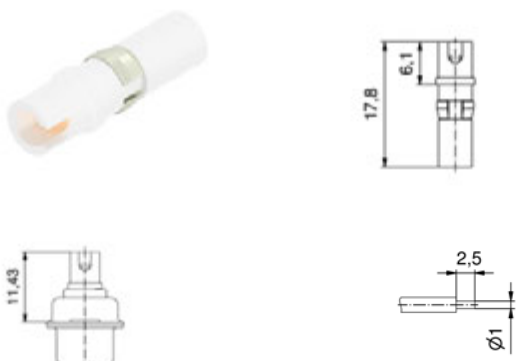
AWG

Working voltage max. [kV]

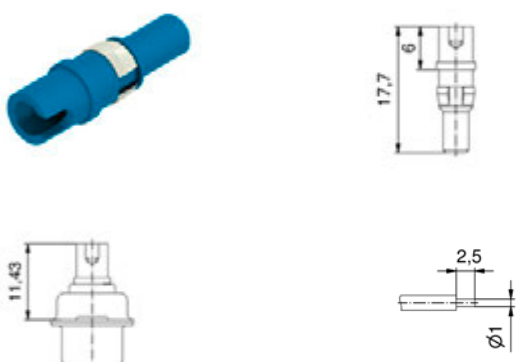
Quality class

UL-File

Part No.

	20	2.8	J	E228329	132J14519X
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Plug contact

	20	2.8	J	E228329	131J14519X
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## COMBINATION D-SUB CONNECTORS Contacts

Coaxial contacts, straight  
Inner conductor solder-, outer conductor crimp-/solder termination

Socket contact

Quality class J  $\geq$  500 mating cycles  
Quality class 3 (A) = 50 mating cycles

		Impedance [ $\Omega$ ]	Cable	Quality class	UL-File	Part No.
	50	178 B/U, 196 A/U, 404 /U	J	A	E228329	132J20019X
			A			132A20019X
		174 /U, 188 A/U, 316 /U	J	A		132J20029X
			A			132A20029X
		180 B/U	J	A		132J20039X
			A			132A20039X
		58 C/U, 141 A/U	J	A		132J20049X
			A			132A20049X
		316 /U double braided	J	A		132J20059X
			A			132A20059X
75	179 B/U, 187 A/U ( $\beta=7.3$ mm)	J	A	132J30019X		
		A		132A30019X		
	179 B/U, 187 A/U ( $\beta=11.2$ mm)	J	A	132J30029X		
		A		132A30029X		

Impedance $\Omega$	Usable Cable RG	A	B	C	D $\emptyset$	E $\emptyset$	F $\emptyset$	G $\emptyset$	H	I	J
50	178BU, 196AU, 404 U	23.00	11.20	17.55	0.85	1.20	1.40	2.30	3.00	5.00	9.50
	174U, 188AU, 316U	23.00	11.20	17.55	0.85	1.90	2.30	3.20	3.00	5.00	9.50
	180BU	23.00	11.20	17.55	0.85	2.80	3.10	4.50	3.00	5.00	9.50
	58CU, 141AU	26.80	14.80	20.15	1.00	3.00	3.60	5.20	3.00	5.00	9.50
	316U double braided	24.00	12.20	17.55	0.85	1.90	2.70	3.20	3.00	5.00	9.50
75	179BU, 187AU	19.05	7.30	12.80	0.50	1.90	2.30	3.20	2.00	3.10	6.00
	179BU, 187AU	23.00	11.20	16.70	0.50	1.90	2.30	3.20	3.00	5.00	9.50

Plug contact

		Impedance [ $\Omega$ ]	Cable	Quality class	UL-File	Part No.
	50	178 B/U, 196 A/U, 404 /U	J	A	E228329	131J20019X
			A			131A20019X
		174 /U, 188 A/U, 316 /U	J	A		131J20029X
			A			131A20029X
		180 B/U	J	A		131J20039X
			A			131A20039X
		58 C/U, 141 A/U	J	A		131J20049X
			A			131A20049X
		316 /U double braided	J	A		131J20059X
			A			131A20059X
75	179 B/U, 187 A/U ( $\beta=7.3$ mm)	J	A	131J30019X		
		A		131A30019X		
	179 B/U, 187 A/U ( $\beta=11.2$ mm)	J	A	131J30029X		
		A		131A30029X		

Impedance $\Omega$	Usable Cable RG	A	B	C	D $\emptyset$	E $\emptyset$	F $\emptyset$	G $\emptyset$	H	I	J
50	178BU, 196AU, 404 U	22.50	11.20	17.55	0.85	1.20	1.40	2.30	3.00	5.00	9.50
	174U, 188AU, 316U	22.50	11.20	17.55	0.85	1.90	2.30	3.20	3.00	5.00	9.50
	180BU	22.50	11.20	17.55	0.85	2.80	3.10	4.50	3.00	5.00	9.50
	58CU, 141AU	26.30	14.80	20.15	1.00	3.00	3.60	5.20	3.00	5.00	9.50
	316U double braided	23.50	12.20	17.55	0.85	1.90	2.70	3.20	3.00	5.00	9.50
75	179BU, 187AU	18.55	7.30	12.80	0.50	1.90	2.30	3.20	2.00	3.10	6.00
	179BU, 187AU	22.50	11.20	16.70	0.50	1.90	2.30	3.20	3.00	5.00	9.50

## COMBINATION D-SUB CONNECTORS Contacts

Coaxial contacts, straight  
Inner and outer conductor crimp termination

Quality class J  $\geq$  500 mating cycles  
Quality class 3 (A) = 50 mating cycles

Socket contact

Impedance [ $\Omega$ ]

Cable

Quality class

UL-File

Part No.

	50	174 /U, 188 A/U, 316 /U	J	E228329	132J21019X
			A		132A21019X
		316 /U double braided	J		132J21029X
			A		132A21029X
		58 C/U, 141 A/U	J		132J21039X
			A		132A21039X
	75	179 B/U, 187 A/U	J	132J31019X	
			A	132A31019X	
		180 B/U	J	132J31029X	
			A	132A31029X	

Impedance $\Omega$	Usable Cable RG	A	B	C	D $\emptyset$	E $\emptyset$	F $\emptyset$	G $\emptyset$	H
50	174U, 188AU, 316U	23.00	11.20	16.60	0.60	1.90	2.30	3.20	9.30
	316U double braided	23.00	11.20	16.60	0.60	1.90	3.00	3.80	9.30
	58CU, 141AU	22.70	10.90	16.30	1.30	3.70	4.30	5.20	9.30
75	179BU, 187AU	22.95	11.20	16.70	0.60	1.90	2.30	3.20	9.30
	180BU	22.15	10.40	15.90	0.60	2.80	4.50	4.50	8.80

Plug contact

	50	174 /U, 188 A/U, 316 /U	J	E228329	131J21019X
			A		131A21019X
		316 /U double braided	J		131J21029X
			A		131A21029X
		58 C/U, 141 A/U	J		131J21039X
			A		131A21039X
	75	179 B/U, 187 A/U	J	131J31019X	
			A	131A31019X	
		180 B/U	J	131J31029X	
			A	131A31029X	

Impedance $\Omega$	Usable Cable RG	A	B	C	D $\emptyset$	E $\emptyset$	F $\emptyset$	G $\emptyset$	H
50	174U, 188AU, 316U	22.50	11.20	16.60	0.60	1.90	2.30	3.20	9.30
	316U double braided	22.50	11.20	16.60	0.60	1.90	3.00	3.80	9.30
	58CU, 141AU	22.20	10.90	16.30	1.30	3.70	4.30	5.20	9.30
75	179BU, 187AU	22.45	11.20	16.70	0.60	1.90	2.30	3.20	9.30
	180BU	21.65	10.40	15.90	0.60	2.80	4.50	4.50	8.80

## COMBINATION D-SUB CONNECTORS Contacts

Coaxial contacts, angled  
Inner conductor solder-, outer conductor crimp-/solder termination

Quality class J  $\geq$  500 mating cycles  
Quality class 3 (A) = 50 mating cycles

### Socket contact

Impedance [ $\Omega$ ]	Cable	Quality class	UL-File	Part No.
50	174 /U, 188 A/U, 316 /U	J	E228329	132J22019X
		A		132A22019X
	178 B/U, 196 A/U, 404 /U	J		132J22029X
		A		132A22029X
	316 /U double braided	J		132J22039X
		A		132A22039X

Impedance $\Omega$	Usable Cable RG	A	B	C	D	E $\emptyset$	F $\emptyset$	G $\emptyset$	H $\emptyset$
50	174U, 188AU, 316U	18.50	8.20	19.80	15.70	0.85	1.90	2.30	3.20
	178BU, 196AU, 404U	18.50	8.20	19.80	15.70	0.85	1.20	1.40	2.30
	316U double braided	19.50	8.20	19.80	16.70	0.85	1.90	2.70	3.50

### Plug contact

Impedance [ $\Omega$ ]	Cable	Quality class	UL-File	Part No.
50	174 /U, 188 A/U, 316 /U	J	E228329	131J22019X
		A		131A22019X
	178 B/U, 196 A/U, 404 /U	J		131J22029X
		A		131A22029X
	316 /U double braided	J		131J22039X
		A		131A22039X

Impedance $\Omega$	Usable Cable RG	A	B	C	D	E $\emptyset$	F $\emptyset$	G $\emptyset$	H $\emptyset$
50	174U, 188AU, 316U	18.50	8.20	19.30	15.70	0.85	1.90	2.30	3.20
	178BU, 196AU, 404U	18.50	8.20	19.30	15.70	0.85	1.20	1.40	2.30
	316U double braided	19.50	8.20	19.30	16.70	0.85	1.90	2.70	3.50

## COMBINATION D-SUB CONNECTORS Contacts

Coaxial contacts, angled  
Inner and outer conductor crimp termination

Quality class J  $\geq$  500 mating cycles  
Quality class 3 (A) = 50 mating cycles

### Socket contact

				Impedance [ $\Omega$ ]	Cable	Quality class	UL-File	Part No.
	50	174 /U, 188 A/U, 316 /U	J	E228329	132J23019X			
			A			132A23019X		
	75	179 B/U, 187 A/U	J		132J33019X			
			A		132A33019X			

### Plug contact

	50	174 /U, 188 A/U, 316 /U	J	E228329	131J23019X
			A		
	75	179 B/U, 187 A/U	J		131J33019X
			A		131A33019X

## COMBINATION D-SUB CONNECTORS Contacts

Coaxial contacts, straight  
PCB termination, 3 solder pins

Quality class J  $\geq 500$  mating cycles  
Quality class 3 (A) = 50 mating cycles

Socket contact

Impedance [ $\Omega$ ]	Shell size	Code use with part no. creator	Quality class	UL-File	Part No.
50	1-5	76	J	E228329	132J24019X
		G7	A		132A24019X
75	1-5	86	J		132J34019X
		G8	A		132A34019X

Plug contact

50	1-5	76	J	E228329	131J24019X
		G7	A		131A24019X
75	1-5	86	J		131J34019X
		G8	A		131A34019X

Coaxial contacts, angled  
PCB termination, 3 solder pins

Socket contact

50	1-4	78	J	E228329	132J25019X
		G9	A		132A25019X
75	1-4	88	J		132J35019X
		H2	A		132A35019X
50	5	79	J	E228329	132J25029X
		H1	A		132A25029X
75	5	89	J		132J35029X
		H3	A		132A35029X

Shellsize	A	B	C	D	E
1-4	13.80	9.30	21.20	11.00	9.30
5	16.80	11.80	23.70	14.00	11.80



## COMBINATION D-SUB CONNECTORS Contacts

Coaxial contacts, angled  
PCB termination, 3 solder pins

Plug contact

Impedance [ $\Omega$ ]		Shell size	Code use with part no. creator	Quality class	UL-File	Part No.	
50	1-4	78	J	E228329		131J25019X	
		G9	A			131A25019X	
	5	79	J			131J25029X	
		H1	A			131A25029X	
	75	1-4	88			J	131J35019X
			H2			A	131A35019X
5		89	J	131J35029X			
		H3	A	131A35029X			

Shellsize	A	B	C	D	E
1-4	13.80	9.30	20.70	11.00	9.30
5	16.80	11.80	23.20	14.00	11.80

## COMBINATION D-SUB CONNECTORS Contacts

Coaxial contacts, straight  
PCB termination, 5 solder pins

Socket contact

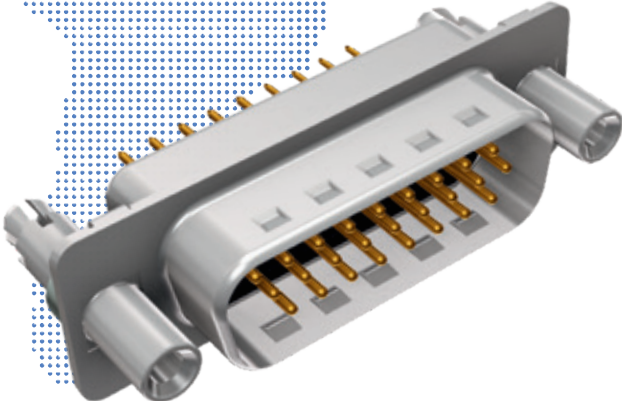
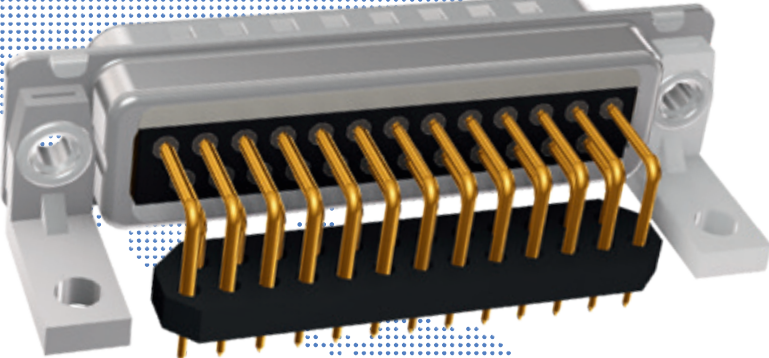
Impedance [ $\Omega$ ]		Shell size	Code use with part no. creator	Quality class	UL-File	Part No.
50	1-4	80	J	E228329		132J25519X
		H4	A			132A25519X
	75	90	J			132J35519X
		H5	A			132A35519X

Plug contact

50	1-4	80	J	E228329		131J25519X
		H4	A			131A25519X
	75	90	J			131J35519X
		H5	A			131A35519X

SECTION 3

# FILTER D-SUB CONNECTORS





## FILTER D-SUB CONNECTORS

### Product specification

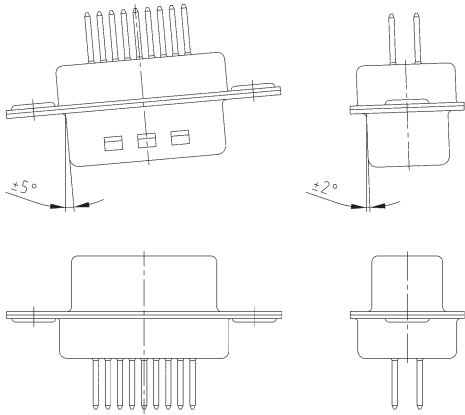
Basic material	Filter D-SUB Standard 9-, 15-, 25-, 37-, 50-pos.	Filter D-SUB High Density 15-, 25-, 44-, 62-, 78-pos.		
Contacts	Copper alloy			
Contact plating	Gold over nickel			
Insulator	PBT GF UL 94 V-0			
Shell	Steel tin plated (on request: brass tin plated)			
Technical data				
Dielectric with standing voltage	<ul style="list-style-type: none"> <li>• Standard 424 VDC</li> <li>• Standard (T-Filter) 300 VDC</li> <li>• High DWV 707 VDC</li> <li>• Ultra high DWV 1500 VDC *</li> <li>• Ultra high DWV (T-Filter) 1000 VDC * *on request</li> </ul>	<ul style="list-style-type: none"> <li>• Standard 300 VDC</li> </ul>		
Working voltage	<ul style="list-style-type: none"> <li>• Standard 100 VDC*</li> <li>• High DWV 100 VDC*</li> <li>• Ultra high DWV 200 VDC*</li> </ul>	<ul style="list-style-type: none"> <li>• Standard 100 VDC*</li> </ul>		
*Depending on isolation coordination (refer to DIN VDE 0110/IEC 664-1)				
Voltage surge 10/700 $\mu$ s	<ul style="list-style-type: none"> <li>• Standard 300 V</li> <li>• High Voltage 500 V</li> </ul>	<ul style="list-style-type: none"> <li>• Standard 300 V</li> </ul>		
Current rating	7.5 A (UL) / 5 A (CSA,VDE)	3 A (UL,VDE) 2.5 A (CSA)		
Contact resistance	max. 10 m $\Omega$ vor Beanspruchung, $\Delta$ R max. 10 m $\Omega$ nach Beanspruchung refer to IEC 60807-2			
Insulation resistance	$\geq 1G\Omega$			
Capacitor values	370 pF $\pm$ 20 % tolerance 830 pF $\pm$ 20 % tolerance 1300 pF $\pm$ 20 % tolerance <small>other capacitor values on request</small>	370 pF $\pm$ 20 % tolerance 830 pF $\pm$ 20 % tolerance		
Operating temperature	-25 °C to +105 °C	-25 °C to +85 °C		
Humidity	40 °C / 85 % relative humidity/RH			
Mating and unmating forces	9-pos. $\leq$ 30 N 15-pos. $\leq$ 50 N 25-pos. $\leq$ 83 N 37-pos. $\leq$ 123 N 50-pos. $\leq$ 167 N	15-pos. $\leq$ 50 N 26-pos. $\leq$ 83 N 44-pos. $\leq$ 110 N 62-pos. $\leq$ 170 N 78-pos. $\leq$ 200 N		
Quality class	A= Quality class 3 = 50 mating cycles, B = Quality class 2 = 200 mating cycles, C = Quality class 1 = 500 mating cycles			
Solder parameter	Preheating		Solder terminal dipping parameters	
	max. temperature	Duration	max. Solder bath temperature	max. Terminal Immersion Time
Recommended wave-solder parameters	100 °C	30 s	260 °C	5 s

Technical specifications are subject to change without notice.

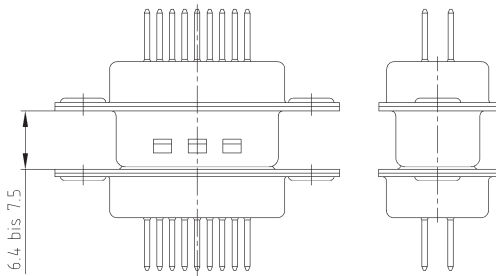
## FILTER D-SUB CONNECTORS

### Mating conditions

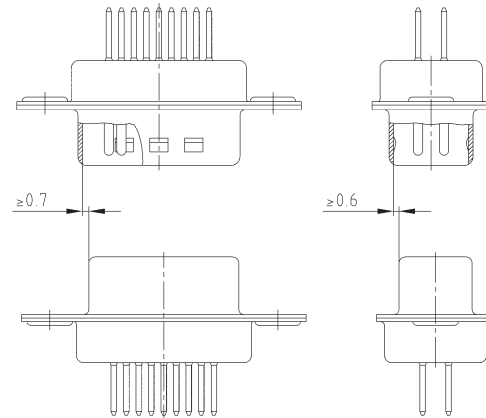
#### Max. tilt angle for connector mating



#### Range for safe contact

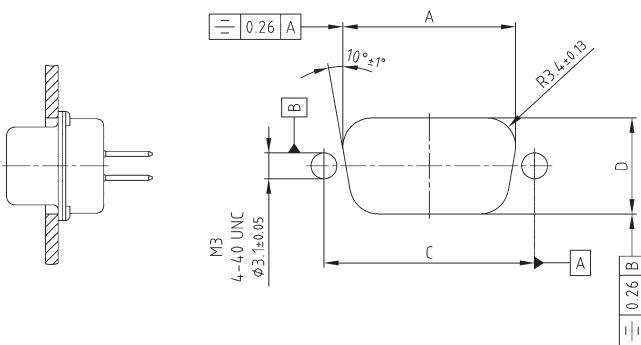


#### Lock-in range

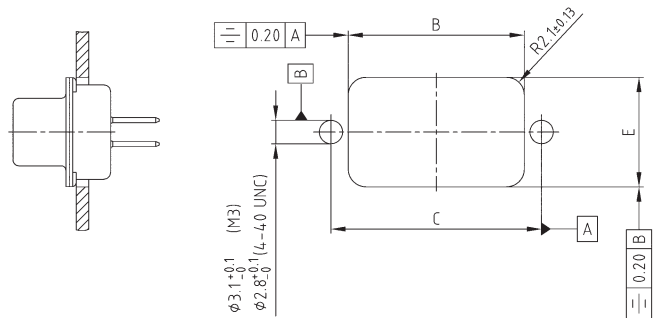


### Panel cut-out

#### Back panel mounting



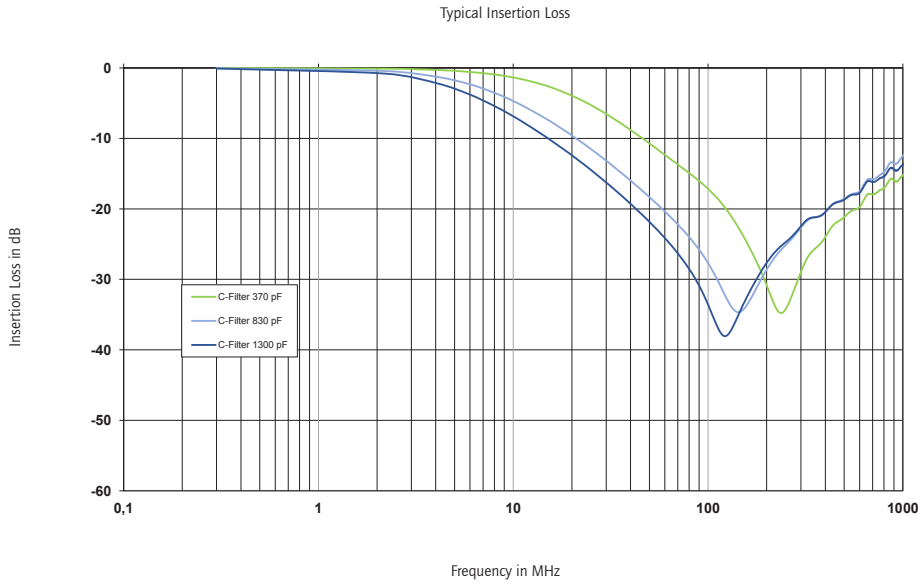
#### Front panel mounting



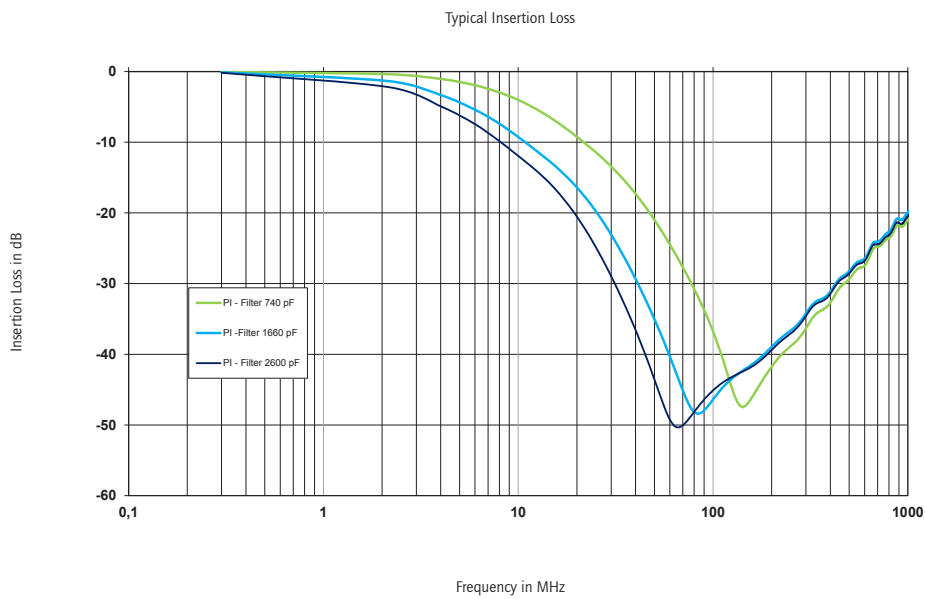
Shell size	No. of poles	A ± 0.1	B ± 0.1	C ± 0.1	D ± 0.1	E ± 0.1
1	9 15	20.50	22.20	25.00	11.40	13.00
2	15 26	28.80	30.50	33.30	11.40	13.00
3	25 44	42.50	44.30	47.04	11.40	13.00
4	37 62	59.10	60.70	63.50	11.40	13.00
5	50 78	56.30	58.30	61.10	14.10	15.80

Technical specifications are subject to change without notice.

C-Filter with planar filter technology



C-Filter with chip technology



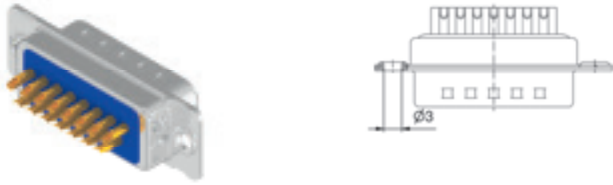
Technical specifications are subject to change without notice.

**FILTER D-SUB CONNECTORS**  
C-Filter Standard

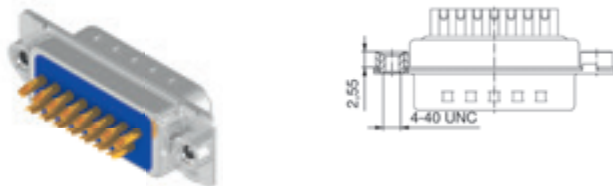
Solder cup  
Precision machined contacts, AWG 20

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Through-hole Ø 3 mm (1)

		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
	09	75	100	E202784	3	370	24-002443	24-001913	
	15						24-001793	24-001703	
	25						24-002473	24-002563	
	37						24-002503	24-002593	
	09	75	100	E202784	3	830	24-002453	24-001923	
	15						24-001803	24-001713	
	25						24-002483	24-002573	
	37						24-002513	24-002603	
	09	75	100	E202784	3	1300	24-002463	24-001933	
	15						24-001813	24-001723	
	25						24-002493	24-002583	
	37						24-002523	24-002613	

4-40 UNC threaded insert (2)

	09	75	100	E202784	3	370	24-002383	24-002713
	15						24-001213	24-002743
	25						24-002623	24-002773
	37						24-002653	24-002803
	09	75	100	E202784	3	830	24-002393	24-002723
	15						24-001223	24-002753
	25						24-002633	24-002783
	37						24-002663	24-002813
	09	75	100	E202784	3	1300	24-002403	24-002733
	15						24-001233	24-002763
	25						24-002643	24-002793
	37						24-002673	24-002823

**FILTER D-SUB CONNECTORS**  
C-Filter Standard

Solder pin, straight  
Precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Through-hole Ø 3 mm (3)

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75	100	E202784	3	370	24-001943	24-001243
15						24-002293	24-003043
25						24-002863	24-002683
37						24-003103	24-003163
50						24-003133	24-004553
09	75	100	E202784	3	830	24-001953	24-001253
15						24-002303	24-003053
25						24-002873	24-002693
37						24-003113	24-003173
50						24-003143	24-004563
09	75	100	E202784	3	1300	24-001963	24-001263
15						24-002313	24-003063
25						24-002883	24-002703
37						24-003123	24-003183
50						24-003153	24-004573

4-40 UNC threaded insert (4)

09	75	100	E202784	3	370	24-003193	24-005113
15						24-003223	24-001183
25						24-005053	24-005143
37						24-005083	24-004583
50						24-004493	24-004523
09	75	100	E202784	3	830	24-003203	24-005123
15						24-003233	24-001193
25						24-005063	24-005153
37						24-005093	24-004593
50						24-004503	24-004533
09	75	100	E202784	3	1300	24-003213	24-005133
15						24-003243	24-001203
25						24-005073	24-005163
37						24-005103	24-004603
50						24-004513	24-004543


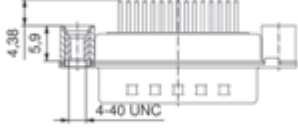


**FILTER D-SUB CONNECTORS**  
C-Filter Standard


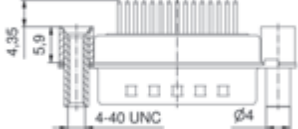
Solder pin, straight  
Precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded rear spacer (5)

		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
 	09	75	100	E202784	3	370	24-005173	24-004693	
	15						24-005203	24-004723	
	25						24-004663	24-005263	
	37						24-003783	24-003753	
	50						24-005233	24-005293	
	09	75	100	E202784	3	830	24-005183	24-004703	
	15						24-005213	24-004733	
	25						24-004673	24-005273	
	37						24-003793	24-003763	
	50						24-005243	24-005303	
	09	75	100	E202784	3	1300	24-005193	24-004713	
	15						24-005223	24-004743	
	25						24-004683	24-005283	
	37						24-003803	24-003773	
	50						24-005253	24-005313	

4-40 UNC front, threaded rear spacer (6)

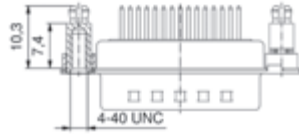
 	09	75	100	E202784	3	370	24-002263	24-003573
	15						24-005323	24-005553
	25						24-004213	24-005583
	37						24-005353	24-005643
	50						24-005523	24-005673
	09	75	100	E202784	3	830	24-002273	24-003583
	15						24-005333	24-005563
	25						24-004223	24-005593
	37						24-005363	24-005653
	50						24-005533	24-005683
	09	75	100	E202784	3	1300	24-002283	24-003593
	15						24-005343	24-005573
	25						24-004233	24-005603
	37						24-005373	24-005663
	50						24-005543	24-005693

**FILTER D-SUB CONNECTORS**  
C-Filter Standard

Solder pin, straight  
Precision machined contacts

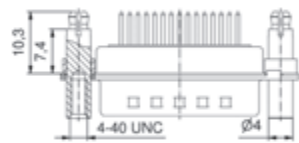
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded rear spacer clip for PCB 1.6 mm (7)



No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75	100	E202784	3	370	24-002923	24-002833
15						24-003723	24-005703
25						24-002953	24-001473
37						24-004123	24-005733
50						24-005613	24-004433
09	75	100	E202784	3	830	24-002933	24-002843
15						24-003733	24-005713
25						24-002963	24-001483
37						24-004133	24-005743
50						24-005623	24-004443
09	75	100	E202784	3	1300	24-002943	24-002853
15						24-003743	24-005723
25						24-002973	24-001493
37						24-004143	24-005753
50						24-005633	24-004453

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm (8)



09	75	100	E202784	3	370	24-003253	24-001523
15						24-004783	24-001733
25						24-004753	24-005823
37						24-005763	24-005853
50						24-005793	24-004463
09	75	100	E202784	3	830	24-003263	24-001513
15						24-004793	24-001743
25						24-004763	24-005833
37						24-005773	24-005863
50						24-005803	24-004473
09	75	100	E202784	3	1300	24-003273	24-001503
15						24-004803	24-001753
25						24-004773	24-005843
37						24-005783	24-005873
50						24-005813	24-004483

**FILTER D-SUB CONNECTORS**  
C-Filter Standard

Solder pin, angled, .318"/7.19 mm  
Precision machined contacts, metal bracket

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert (9)

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75	100	E202784	3	370	24-005883	24-005943
15						24-001853	24-005973
25						24-004893	24-006003
37						24-005913	24-006033
09	75	100	E202784	3	830	24-005893	24-005953
15						24-001863	24-005983
25						24-004903	24-006013
37						24-005923	24-006043
09	75	100	E202784	3	1300	24-005903	24-005963
15						24-001873	24-005993
25						24-004913	24-006023
37						24-005933	24-006053

Clip for PCB 1.6 mm, 4-40 UNC threaded insert (10)

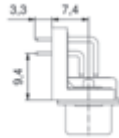
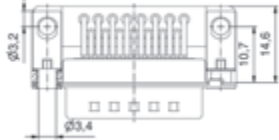
09	75	100	E202784	3	370	24-001383	24-001763
15						24-001553	24-001443
25						24-001413	24-003923
37						24-003873	24-001353
09	75	100	E202784	3	830	24-001392	24-001773
15						24-001543	24-001453
25						24-001423	24-003933
37						24-003883	24-001363
09	75	100	E202784	3	1300	24-001403	24-001783
15						24-001533	24-001463
25						24-001433	24-003943
37						24-003893	24-001373

**FILTER D-SUB CONNECTORS**  
C-Filter Standard

Solder pin, angled, .370" / 9.4 mm  
Precision machined contacts, plastic bracket

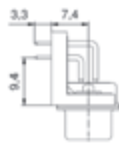
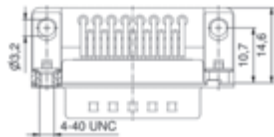
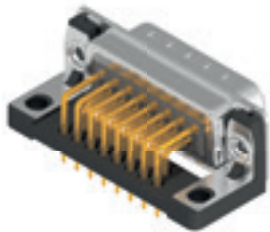
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Grounding strap, through-hole Ø 3.4 mm (11)



No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75	100	E202784	3	370	24-005023	24-007053
15						24-006063	24-007083
25						24-006093	24-007113
37						24-007023	24-007143
09	75	100	E202784	3	830	24-005033	24-007063
15						24-006073	24-007093
25						24-007003	24-007123
37						24-007033	24-007153
09	75	100	E202784	3	1300	24-005043	24-007073
15						24-006083	24-007103
25						24-007013	24-007133
37						24-007043	24-007163

Grounding strap, 4-40 UNC threaded insert (12)



09	75	100	E202784	3	370	24-002353	24-002323
15						24-007173	24-007233
25						24-007203	24-007263
37						24-004383	24-007293
09	75	100	E202784	3	830	24-002363	24-002333
15						24-007183	24-007243
25						24-007213	24-007273
37						24-004393	24-007303
09	75	100	E202784	3	1300	24-002373	24-002343
15						24-007193	24-007253
25						24-007223	24-007283
37						24-004403	24-007313

**FILTER D-SUB CONNECTORS**  
C-Filter Standard

Solder pin, angled, .370" / 9.4 mm  
Precision machined contacts, plastic bracket

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Clip for PCB 1.6 mm, through-hole Ø 3.4 mm (13)

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75	100	E202784	3	370	24-007443	24-007593
15						24-007473	24-007623
25						24-007503	24-007653
37						24-007533	24-007683
50						24-007563	24-007713
09	75	100	E202784	3	830	24-007453	24-007603
15						24-007483	24-007633
25						24-007513	24-007663
37						24-007543	24-007693
50						24-007573	24-007723
09	75	100	E202784	3	1300	24-007463	24-007613
15						24-007493	24-007643
25						24-007523	24-007673
37						24-007553	24-007703
50						24-007583	24-007733

Clip for PCB 1.6 mm, 4-40 UNC threaded insert (14)

09	75	100	E202784	3	370	24-003343	24-001653
15						24-003283	24-007353
25						24-003313	24-003373
37						24-004093	24-007383
50						24-007323	24-007413
09	75	100	E202784	3	830	24-003353	24-001663
15						24-003293	24-007363
25						24-003323	24-003383
37						24-004103	24-007393
50						24-007333	24-007423
09	75	100	E202784	3	1300	24-003363	24-001673
15						24-003303	24-007373
25						24-003333	24-003393
37						24-004113	24-007403
50						24-007343	24-007433

**FILTER D-SUB CONNECTORS**  
C-Filter Standard

Solder pin, angled, .370" / 9.4 mm  
Precision machined contacts, metal bracket

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Clip for PCB 1.6 mm, 4-40 UNC threaded insert (15)

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No.	
						Socket contact	Plug contact
09	75	100	E202784	3	370	24-002533	24-007833
15						24-007743	24-007863
25						24-007773	24-007923
37						24-007803	24-007953
50						24-004183	24-007983
09	75	100	E202784	3	830	24-002543	24-007843
15						24-007753	24-007873
25						24-007783	24-007933
37						24-007813	24-007963
50						24-004193	24-007993
09	75	100	E202784	3	1300	24-002553	24-007853
15						24-007763	24-007883
25						24-007793	24-007943
37						24-007823	24-007973
50						24-004203	24-008003

Clip for PCB 1.6 mm, 4-40 UNC front spacer (16)

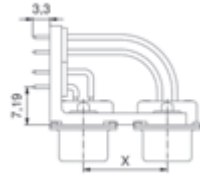
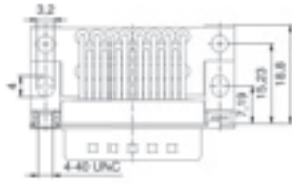
09	75	100	E202784	3	370	24-007893	24-008133
15						24-008043	24-008163
25						24-008013	24-008193
37						24-008073	24-008223
50						24-008999	24-008253
09	75	100	E202784	3	830	24-007903	24-008143
15						24-008053	24-008173
25						24-008023	24-008203
37						24-008083	24-008233
50						24-008103	24-008253
09	75	100	E202784	3	1300	24-007913	24-008153
15						24-008063	24-008183
25						24-008033	24-008213
37						24-008093	24-008243
50						24-008123	24-008273

**FILTER D-SUB CONNECTORS**  
C-Filter Dual Port

Plug upper - Plug bottom  
Solder pin, angled, precision machined contacts

4-40 UNC threaded insert (17)

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread



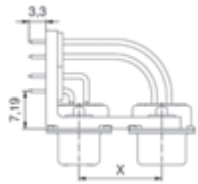
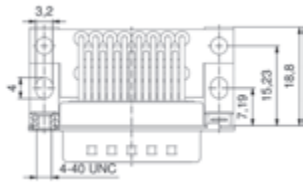
No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Connector spacing X = [inches, mm]	Part No.
75	100		E202784	3	370	.625, 15.88	24-001883
75	100		E202784	3	370	.625, 15.88	24-008283
75	100		E202784	3	370	.625, 15.88	24-004863
75	100		E202784	3	370	.625, 15.88	24-008313
75	100		E202784	3	830	.625, 15.88	24-001893
75	100		E202784	3	830	.625, 15.88	24-008293
75	100		E202784	3	830	.625, 15.88	24-004873
75	100		E202784	3	830	.625, 15.88	24-008323
75	100		E202784	3	1300	.625, 15.88	24-001903
75	100		E202784	3	1300	.625, 15.88	24-008303
75	100		E202784	3	1300	.625, 15.88	24-004883
75	100		E202784	3	1300	.625, 15.88	24-008333
75	100		E202784	3	370	.750, 19.05	24-008373
75	100		E202784	3	370	.750, 19.05	24-008403
75	100		E202784	3	370	.750, 19.05	24-008433
75	100		E202784	3	370	.750, 19.05	24-008463
75	100		E202784	3	830	.750, 19.05	24-008383
75	100		E202784	3	830	.750, 19.05	24-008413
75	100		E202784	3	830	.750, 19.05	24-008443
75	100		E202784	3	830	.750, 19.05	24-008473
75	100		E202784	3	1300	.750, 19.05	24-008393
75	100		E202784	3	1300	.750, 19.05	24-008423
75	100		E202784	3	1300	.750, 19.05	24-008453
75	100		E202784	3	1300	.750, 19.05	24-008483

**FILTER D-SUB CONNECTORS**  
C-Filter Dual Port

Plug upper - Socket bottom  
Solder pin, angled, precision machined contacts

4-40 UNC threaded insert (18)

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread



No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Connector spacing X = [inches, mm]	Part No.
75	100	100	E202784	3	370	.625, 15.88	24-004153
15/15							24-008493
25/25							24-008523
37/37							24-008553
75	100	100	E202784	3	830	.625, 15.88	24-004163
15/15							24-008503
25/25							24-008533
37/37							24-008563
75	100	100	E202784	3	1300	.625, 15.88	24-004173
15/15							24-008513
25/25							24-008543
37/37							24-008573
75	100	100	E202784	3	370	.750, 19.05	24-00853
15/15							24-008613
25/25							24-008643
37/37							24-008673
75	100	100	E202784	3	830	.750, 19.05	24-008593
15/15							24-008623
25/25							24-008653
37/37							24-008683
75	100	100	E202784	3	1300	.750, 19.05	24-008603
15/15							24-008633
25/25							24-008663
37/37							24-008693

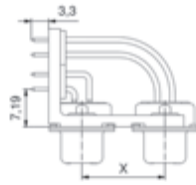
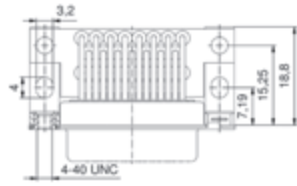


**FILTER D-SUB CONNECTORS**  
C-Filter Dual Port

Socket upper - Socket bottom  
Solder pin, angled, precision machined contacts

4-40 UNC threaded insert (19)

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

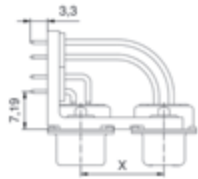
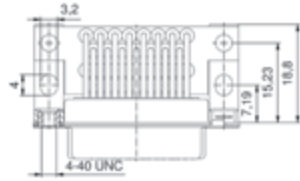


No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Connector spacing X = [inches, mm]	Part No.
75	100		E202784	3	370	.625, 15.88	24-001603
75	100		E202784	3	370	.625, 15.88	24-004353
75	100		E202784	3	370	.625, 15.88	24-008703
75	100		E202784	3	370	.625, 15.88	24-008733
75	100		E202784	3	830	.625, 15.88	24-001613
75	100		E202784	3	830	.625, 15.88	24-004363
75	100		E202784	3	830	.625, 15.88	24-008713
75	100		E202784	3	830	.625, 15.88	24-008743
75	100		E202784	3	1300	.625, 15.88	24-001623
75	100		E202784	3	1300	.625, 15.88	24-004373
75	100		E202784	3	1300	.625, 15.88	24-008723
75	100		E202784	3	1300	.625, 15.88	24-008753
75	100		E202784	3	370	.750, 19.05	24-003403
75	100		E202784	3	370	.750, 19.05	24-008763
75	100		E202784	3	370	.750, 19.05	24-008793
75	100		E202784	3	370	.750, 19.05	24-008823
75	100		E202784	3	830	.750, 19.05	24-003413
75	100		E202784	3	830	.750, 19.05	24-008773
75	100		E202784	3	830	.750, 19.05	24-008803
75	100		E202784	3	830	.750, 19.05	24-008833
75	100		E202784	3	1300	.750, 19.05	24-003423
75	100		E202784	3	1300	.750, 19.05	24-008783
75	100		E202784	3	1300	.750, 19.05	24-008813
75	100		E202784	3	1300	.750, 19.05	24-008843


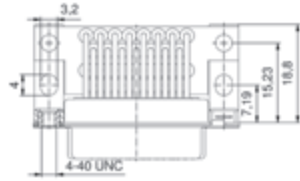
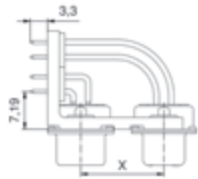
**FILTER D-SUB CONNECTORS**  
C-Filter Dual Port

Socket upper - Plug bottom  
Solder pin, angled, precision machined contacts

4-40 UNC threaded insert (20)



Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Connector spacing X = [inches, mm]	Part No.
  	09/09								24-002033
	15/15								24-008853
	25/25	75	100	E202784	3	370	.625, 15.88		24-008883
	37/37								24-008913
	09/09								24-002043
	15/15								24-008863
	25/25	75	100	E202784	3	830	.625, 15.88		24-008893
	37/37								24-008923
	09/09								24-002053
	15/15								24-008873
	25/25	75	100	E202784	3	1300	.625, 15.88		24-008903
	37/37								24-008933
	09/09								24-004813
	15/15								24-008943
	25/25	75	100	E202784	3	370	.750, 19.05		24-008973
	37/37								24-001273
	09/09								24-004823
	15/15								24-008953
	25/25	75	100	E202784	3	830	.750, 19.05		24-008983
	37/37								24-001283
09/09								24-004833	
15/15								24-008963	
25/25	75	100	E202784	3	1300	.750, 19.05		24-008993	
37/37								24-001293	

**FILTER D-SUB CONNECTORS**  
LC-Filter Standard

Solder pin, angled, .318"/7.19 mm  
Precision machined contacts, metal bracket

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert (21)

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75	100	E202784	3	370	24-009003	24-009123
15						24-009033	24-009153
25						24-009063	24-009183
37						24-009093	24-009213
09	75	100	E202784	3	830	24-009013	24-009133
15						24-009043	24-009163
25						24-009073	24-009193
37						24-009103	24-009223
09	75	100	E202784	3	1300	24-009023	24-009143
15						24-009053	24-009173
25						24-009083	24-009203
37						24-009113	24-009233

Clip for PCB 1.6 mm, 4-40 UNC threaded insert (22)

09	75	100	E202784	3	370	24-009243	24-009363
15						24-009273	24-009393
25						24-009303	24-009423
37						24-009333	24-009453
09	75	100	E202784	3	830	24-009253	24-009373
15						24-009283	24-009403
25						24-009313	24-009433
37						24-009343	24-009463
09	75	100	E202784	3	1300	24-009263	24-009383
15						24-009293	24-009413
25						24-009323	24-009443
37						24-009353	24-009473

**FILTER D-SUB CONNECTORS**  
LC-Filter Standard

Solder pin, angled, .370" / 9.4 mm  
Precision machined contacts, metal bracket

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert (23)

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75	100	E202784	3	370	24-009483	24-009603
15						24-009513	24-009633
25						24-009543	24-009663
37						24-009573	24-009693
09	75	100	E202784	3	830	24-009493	24-009613
15						24-009523	24-009643
25						24-009553	24-009673
37						24-009583	24-009703
09	75	100	E202784	3	1300	24-009503	24-009623
15						24-009533	24-009653
25						24-009563	24-009683
37						24-009593	24-009713

Clip for PCB 1.6 mm, 4-40 UNC threaded insert (24)


09	75	100	E202784	3	370	24-002893	24-009813
15						24-009723	24-009843
25						24-009753	24-009873
37						24-009783	24-009903
09	75	100	E202784	3	830	24-002903	24-009823
15						24-009733	24-009853
25						24-009763	24-009883
37						24-009793	24-009913
09	75	100	E202784	3	1300	24-002913	24-009833
15						24-009743	24-009863
25						24-009773	24-009893
37						24-009803	24-009923

**FILTER D-SUB CONNECTORS**  
π-Filter Standard

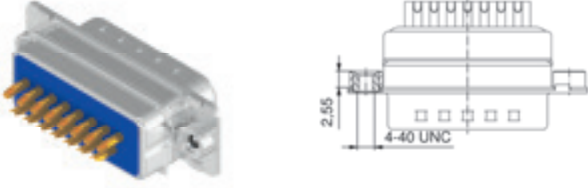
Solder cup  
Precision machined contacts, AWG 20

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Through-hole Ø 3 mm (25)

		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
	09	75	100	E202784	3	2x 370	24-003983	24-003953	
	15						24-003693	24-002233	
	25						24-004043	24-009963	
	37						24-009933	24-009993	
	09	75	100	E202784	3	2x 830	24-003993	24-003963	
	15						24-003703	24-002243	
	25						24-004053	24-009973	
	37	24-009943	24-010003						
	09	75	100	E202784	3	2x 1300	24-004003	24-003973	
	15						24-003713	24-002253	
	25						24-004063	24-009983	
	37						24-009953	24-010013	

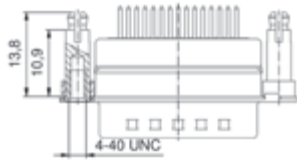
4-40 UNC threaded insert (26)

	09	75	100	E202784	3	2x 370	24-010023	24-010113
	15						24-001323	24-010143
	25						24-010053	24-010173
	37						24-010083	24-010203
	09	75	100	E202784	3	2x 830	24-010033	24-010123
	15						24-001333	24-010153
	25						24-010063	24-010183
	37	24-010093	24-010213					
	09	75	100	E202784	3	2x 1300	24-010043	24-010133
	15						24-001343	24-010163
	25						24-010073	24-010193
	37						24-010103	24-010223

**FILTER D-SUB CONNECTORS**  
π-Filter Standard

Solder pin, straight  
Precision machined contacts

4-40 UNC threaded rear spacer clip for PCB 1.6 mm (27)



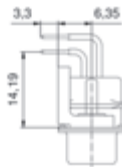
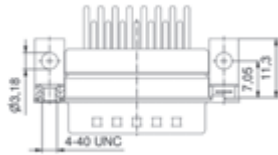
No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75	100	E202784	3	2x 370	24-002123	24-003483
15						24-002983	24-010263
25						24-003013	24-010293
37						24-010233	24-003633
09	75	100	E202784	3	2x 830	24-002133	24-003493
15						24-002993	24-010273
25						24-003023	24-010303
37						24-010243	24-003643
09	75	100	E202784	3	2x 1300	24-002143	24-003503
15						24-003003	24-010283
25						24-003033	24-010313
37						24-010253	24-003653

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**FILTER D-SUB CONNECTORS**  
π-Filter Standard

Solder pin, angled, .590" / 14.19 mm  
Precision machined contacts, metal bracket

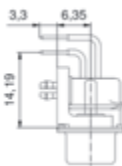
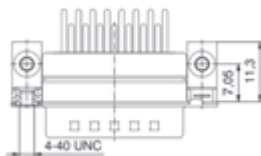
4-40 UNC threaded insert (28)



No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75	100	E202784	3	2x 370	24-010323	24-010443
15						24-010353	24-002203
25						24-010383	24-010473
37						24-010413	24-008343
09	75	100	E202784	3	2x 830	24-010333	24-010453
15						24-010363	24-002213
25						24-010393	24-010483
37						24-010423	24-008353
09	75	100	E202784	3	2x 1300	24-010343	24-010463
15						24-010373	24-002223
25						24-010403	24-010493
37						24-010433	24-008363

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Clip for PCB 1.6 mm, 4-40 UNC threaded insert (29)



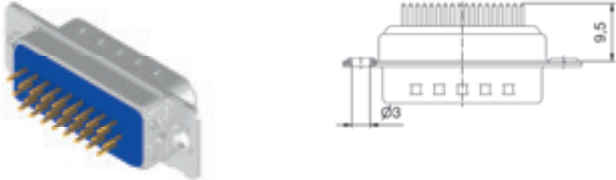
09	75	100	E202784	3	2x 370	24-002413	24-004243
15						24-010503	24-010593
25						24-010533	24-010623
37						24-010563	24-010653
09	75	100	E202784	3	2x 830	24-002423	24-004253
15						24-010513	24-010603
25						24-010543	24-010633
37						24-010573	24-010663
09	75	100	E202784	3	2x 1300	24-002433	24-004263
15						24-010523	24-010613
25						24-010553	24-010643
37						24-010583	24-010673

**FILTER D-SUB CONNECTORS**  
C-Filter High Density

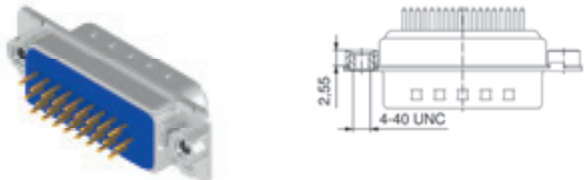
Solder pin, straight  
Precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

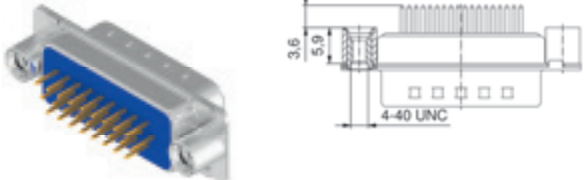
Through-hole Ø 3 mm (30)

		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
	15	3	100	E202784	3	370	24-003903	24-003833	
	26						24-010683	24-010743	
	44						24-010703	24-010763	
	62						24-010723	24-010783	
	15	3	100	E202784	3	830	24-003913	24-003842	
	26						24-010693	24-010753	
	44						24-010713	24-010773	
	62						24-010733	24-010793	

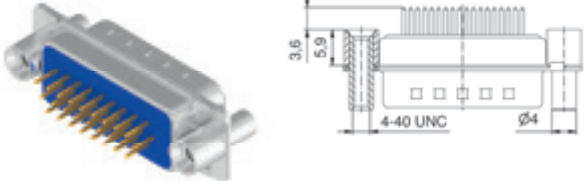
4-40 UNC threaded insert (31)

	15	3	100	E202784	3	370	24-004613	24-004413
	26						24-004333	24-003553
	44						24-010803	24-010843
	62						24-010823	24-010863
	15	3	100	E202784	3	830	24-004623	24-004423
	26						24-004343	24-003563
	44						24-010813	24-010853
	62						24-010833	24-010873

4-40 UNC threaded rear spacer (32)

	15	3	100	E202784	3	370	24-010883	24-010963
	26						24-010903	24-010983
	44						24-010923	24-011003
	62						24-010943	24-011023
	15	3	100	E202784	3	830	24-010893	24-010973
	26						24-010913	24-010993
	44						24-010933	24-011013
	62						24-010953	24-011033

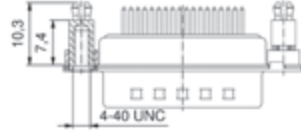
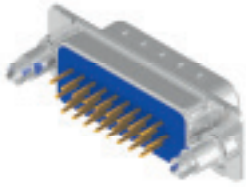
4-40 UNC front, threaded rear spacer (33)

	15	3	100	E202784	3	370	24-003463	24-011063
	26						24-003533	24-011083
	44						24-003513	24-011103
	62						24-011043	24-011123
	15	3	100	E202784	3	830	24-003473	24-011073
	26						24-003543	24-011093
	44						24-003523	24-011113
	62						24-011053	24-011133

**FILTER D-SUB CONNECTORS**  
C-Filter High Density

Solder pin, straight  
Precision machined contacts

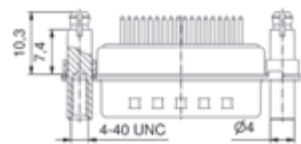
4-40 UNC threaded rear spacer clip for PCB 1.6 mm (34)



No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
15	3	100	E202784	3	370	24-004073	24-011203
26						24-011143	24-011223
44						24-011163	24-011243
62						24-011183	24-012353
15	3	100	E202784	3	830	24-004083	24-011213
26						24-011153	24-011233
44						24-011173	24-011253
62						24-011193	24-011263

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm (35)

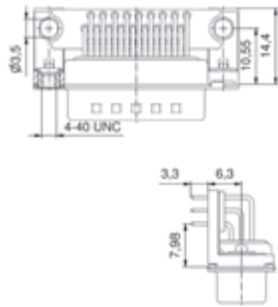
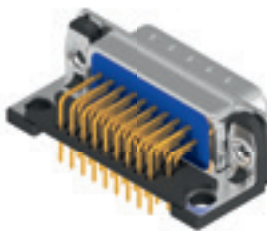


15	3	100	E202784	3	370	24-004923	24-011333
26						24-011273	24-011353
44						24-011293	24-011373
62						24-011313	24-011393
15	3	100	E202784	3	830	24-004933	24-011343
26						24-011283	24-011363
44						24-011303	24-011383
62						24-011323	24-011403

**FILTER D-SUB CONNECTORS**  
C-Filter High Density

Solder pin, angled, .350"/7.98 mm  
Precision machined contacts, plastic bracket

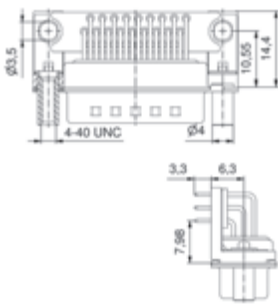
Grounding strap, 4-40 UNC threaded insert (36)



No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
15	3	100	E202784	3	370	24-011413	24-011493
26						24-011433	24-011513
44						24-011453	24-011533
62						24-011473	24-011553
15	3	100	E202784	3	830	24-011423	24-011503
26						24-011443	24-011523
44						24-011463	24-011543
62						24-011483	24-011563

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Grounding strap, 4-40 UNC front spacer (37)



15	3	100	E202784	3	370	24-011573	24-011653
26						24-011593	24-011673
44						24-011613	24-011693
62						24-011633	24-011713
15	3	100	E202784	3	830	24-011583	24-011663
26						24-011603	24-011683
44						24-011623	24-011703
62						24-011643	24-011723



**FILTER D-SUB CONNECTORS**  
C-Filter High Density

Solder pin, angled, .350"/7.98 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert (38)

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
15	3	100	E202784	3	370	24-011733	24-011793
26						24-004963	24-004943
44						24-011753	24-011813
62						24-011773	24-011833
15	3	100	E202784	3	830	24-011743	24-011803
26						24-004973	24-004953
44						24-011763	24-011823
62						24-011783	24-011843

Clip for PCB 1.6 mm, 4-40 UNC threaded insert (39)

15	3	100	E202784	3	370	24-011853	24-005383
26						24-003853	24-011893
44						24-004983	24-005003
62						24-011873	24-011913
15	3	100	E202784	3	830	24-011863	24-005393
26						24-003863	24-011903
44						24-004993	24-005013
62						24-011883	24-011923

**FILTER D-SUB CONNECTORS**  
LC-Filter High Density

Solder pin, angled, .350"/7.98 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert (40)

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
15	3	100	E202784	3	370	24-005503	24-005443
26						24-011933	24-005463
44						24-005403	24-002183
62						24-005423	24-005483
15	3	100	E202784	3	830	24-005513	24-005453
26						24-011943	24-005473
44						24-005413	24-002193
62						24-005433	24-005493

Clip for PCB 1.6 mm, 4-40 UNC threaded insert (41)

15	3	100	E202784	3	370	24-011953	24-012033
26						24-011973	24-012053
44						24-011993	24-004843
62						24-012013	24-012073
15	3	100	E202784	3	830	24-011963	24-012043
26						24-011983	24-012063
44						24-012003	24-004853
62						24-012023	24-012083

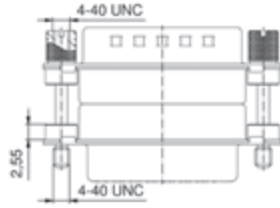
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**FILTER D-SUB CONNECTORS**  
C-Filter Full Metal Adapter

Socket connector - Plug connector  
Precision machined contacts

4-40 UNC jack screw (42)



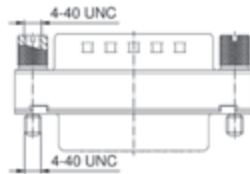
No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75	100	E202784	3	370	24-001823
15						24-012093
25						24-012123
37						24-012153
09	75	100	E202784	3	830	24-001833
15						24-012103
25						24-012133
37						24-012163
09	75	100	E202784	3	1300	24-001843
15						24-012113
25						24-012143
37						24-012173

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles  
• M3 jack screw

**FILTER D-SUB CONNECTORS**  
C-Filter Adapter

Socket connector - Plug connector, low profile  
Precision machined contacts

4-40 UNC jack screw (43)



No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75	100	E202784	3	370	24-001683
15						24-003663
25						24-002153
37						24-012183
50						24-004273
09	75	100	E202784	3	830	24-001693
15						24-003673
25						24-002163
37						24-012193
50						24-004283
09	75	100	E202784	3	1300	24-001633
15						24-003683
25						24-002173
37						24-012203
50						24-004293


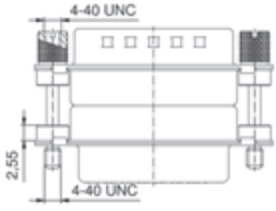
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles  
• M3 jack screw

**FILTER D-SUB CONNECTORS**  
**π-Filter Full Metal Adapter**


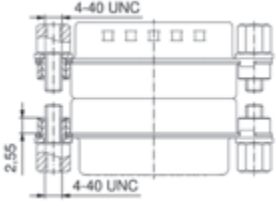
Socket connector - Plug connector  
 Precision machined contacts

4-40 UNC jack screw (44)

Shell: Steel tin plated  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 jack screw  
 • M3 hex bolt

		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No.
 	09	75	100	E202784	3	2x 370	24-001973	
	15						24-012213	
	25						24-004633	
	37						24-003603	
	09	75	100	E202784	3	2x 830	24-001983	
	15						24-012223	
	25						24-004643	
	37						24-003613	
	09	75	100	E202784	3	2x 1300	24-001993	
	15						24-012233	
	25						24-004653	
	37						24-003623	

4-40 UNC hex bolt (45)


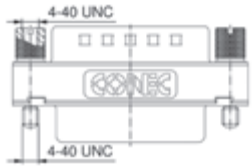
 	09	75	100	E202784	3	2x 370	24-001573
	15						24-003073
	25						24-004303
	37						24-012243
	09	75	100	E202784	3	2x 830	24-001583
	15						24-003083
	25						24-004313
	37						24-012253
	09	75	100	E202784	3	2x 1300	24-001593
	15						24-003093
	25						24-004323
	37						24-012263

**FILTER D-SUB CONNECTORS**  
**C-Filter Adapter High Density**

Socket connector - Plug connector, low profile  
 Precision machined contacts

4-40 UNC jack screw (46)


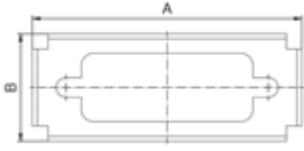
Shell: Steel tin plated  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 jack screw

		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No.
 	15	3	100	E202784	3	370	24-012273	
	26						24-012293	
	44						24-012313	
	62						24-012333	
	15	3	100	E202784	3	830	24-012283	
	26						24-012303	
	44						24-012323	
	62						24-012343	

**FILTER D-SUB CONNECTORS**  
Accessories

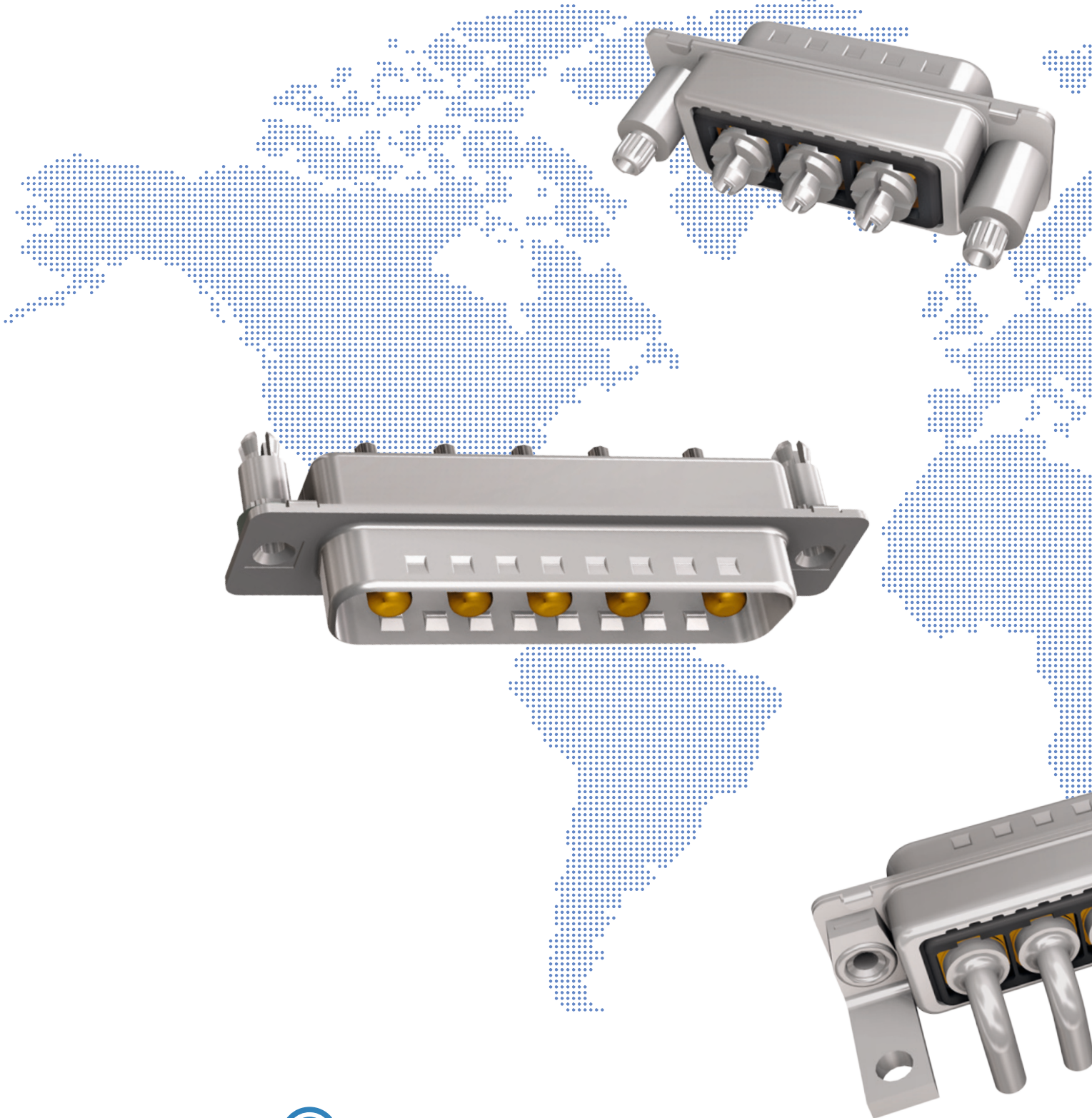
EMI/RFI shielding frames

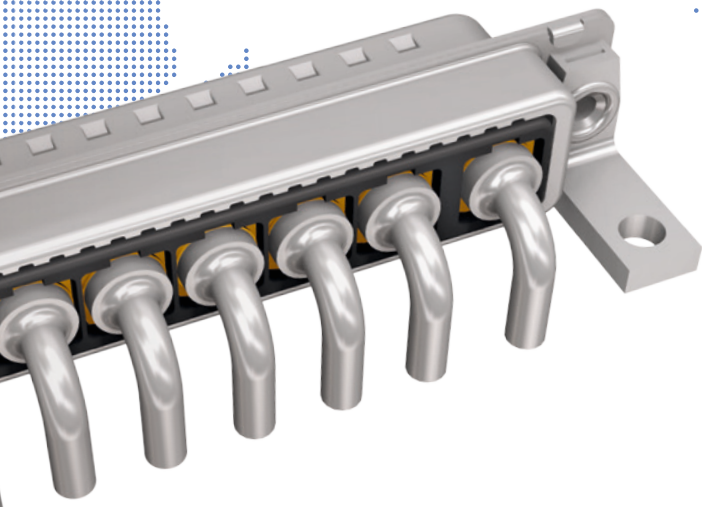
- Material: Stainless steel
- For improved ground contact
- Suitable for assembly to the mating side

		Shell size	No. of poles Standard	No. of poles High Density	Measure A [mm]	Measure B [mm]	Part No.
 	1	09	15	35,8	17,5	160X10839X	
	2	15	26	44,2	17,5	160X10849X	
	3	25	44	57,9	17,5	160X10859X	
	4	37	62	74,4	17,5	160X10869X	
	5	50	78	72,1	20,3	160X10879X	

SECTION 4

# FILTER COMBINATION D-SUB CONNECTORS





## FILTER COMBINATION D-SUB CONNECTORS

### Part Number Creator

**3 F 3 S P A 0 8 S 4 1 A 1 O X**

#### Shell size and design

1	= 2F2C (2W2C)*	= Coded
2	= 3F3S (3W3S)*	= Standard
2	= 3F3C (3W3C)*	= Coded
3	= 5F5S (5W5S)*	= Standard
4	= 8F8S (8W8S)*	= Standard

\*F = filtered

#### Contact type

P	= Plug connector
S	= Socket connector

#### Plaiting code/Quality class for contacts

A	= Quality class 3	= 50 mating cycles
C	= Quality class 1	= 500 mating cycles*    *on request

#### Capacitance

05	= 1.3 nF	14	= 12 nF
08	= 5.0 nF	22	= 47 nF
12	= 10 nF	28	= 100 nF

#### Dielectric with standing voltage

S	= 707 VDC standard DWV	U	= 1500 VDC ultra high DWV
H	= 1020 VDC high DWV		

#### Termination for high current contacts

41	= Solder cup 10 A	51	= Solder pin, straight 30 A, D= .125"/3.18 mm
42	= Solder cup 20 A	52	= Solder pin, straight 40 A, D= .148"/3.75 mm
43	= Solder cup 30 A	53	= Solder pin, straight 50 A, D= .148"/3.75 mm
44	= Solder cup 40 A	56	= Solder pin, angled 20 A
45	= Solder cup 50 A	57	= Solder pin, angled 30 A
46	= Solder cup 65 A*	58	= Solder pin, angled 40 A
48	= Solder pin, straight 20 A, D= .077"/1.95 mm	P1	= Press fit 30 A
49	= Solder pin, straight 20 A, D= .102"/2.60 mm	P2	= Press fit 30 A
50	= Solder pin, straight 20 A, D= .112"/2.85 mm	P4	= Press fit 30 A
			*3W3: Pos. A1 + A3; 5W5: Pos. A1 + A3 + A5

#### Mounting style

A1	= Riveted	E4	= 4-40 UNC threaded rear spacer with PCB clip, PCB .091"/2.30 mm
A3	= 4-40 UNC threaded insert	E6	= 4-40 UNC threaded rear spacer with PCB clip, PCB .126"/3.20 mm
A5	= 4-40 UNC threaded rear spacer	F2	= 4-40 UNC front/threaded rear spacer with PCB clip, PCB .063"/1.60 mm
AA	= Threaded rear spacer with 4-40 UNC press fit	F4	= 4-40 UNC front/threaded rear spacer with PCB clip, PCB .091"/2.30 mm
C2	= 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm	F6	= 4-40 UNC front/threaded rear spacer with PCB clip, PCB .126"/3.20 mm
C4	= 4-40 UNC threaded rear spacer with PCB clip, PCB .091"/2.30 mm	K2	= Metal bracket, 4-40 UNC threaded insert
C6	= 4-40 UNC threaded rear spacer with PCB clip, PCB .126"/3.20 mm	K4	= Metal bracket, 4-40 UNC threaded insert /PCB clip
D2	= 4-40 UNC front/threaded rear spacer with PCB clip, PCB .063"/1.60 mm	L2	= Metal bracket, 4-40 UNC threaded lock
D4	= 4-40 UNC front/threaded rear spacer with PCB clip .091"/2.30 mm	L4	= Metal bracket, 4-40 UNC threaded lock /PCB clip
D6	= 4-40 UNC front/threaded rear spacer with PCB clip, PCB .126"/3.20 mm	W4	= Press-fit spacer with 4-40 UNC push in pin
E2	= 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm		

OX = Standard

## FILTER COMBINATION D-SUB CONNECTORS

### Product specification

Basic Material	Variations 2W2C – 3W3C – 3W3 – 5W5 – 8W8		
Contacts	CU alloy		
Contact plating	Mating area gold plated over nickel / termination area tin or gold plated		
Insulator	PBT GF UL 94 V-0		
Shell	Steel tin plated		
Technical Data			
Dielectric with standing voltage	Standard DWV	707 VDC	
	High DWV	1020 VDC	
	Ultra High DWV	1500 VDC	
Working voltage	100 VDC Depending on isolation coordination refer to DIN VDE 0110/IEC 664-1		
Current rating	up to 65 A (20 °C)		
Contact resistance	Max. 2 mΩ prior to stressing, ΔR max. 2 mΩ after stressing refer to IEC 60807-2		
Insulation resistance	≥1 GΩ		
Capacitor values For other capacitance values please contact the factory.	1.3 nF ± 20 % tolerance	12 nF ± 20 % tolerance	
	5 nF ± 20 % tolerance	47 nF ± 20 % tolerance	
	10 nF ± 20 % tolerance	100 nF ± 20 % tolerance	
	other capacitor values on request		
Operating temperature	-55 °C to + 125 °C		
Humidity	40 °C / 85 % relative humidity / RH		
Insertion force per contact	7 N		
Extraction force per contact	approx 5 N		
Quality class	A = Quality class 3 = 50 mating cycles C = Quality class 1 = 500 mating cycles		
Solder parameter	Preheating		Solder terminal dipping parameters
	max. Temperature	Duration	max. solder bath Temperature   max. Terminal Immersion Time
Recommended wave-solder parameters	120 °C	120 s	260 °C   5 s

Technical specifications are subject to change without notice.

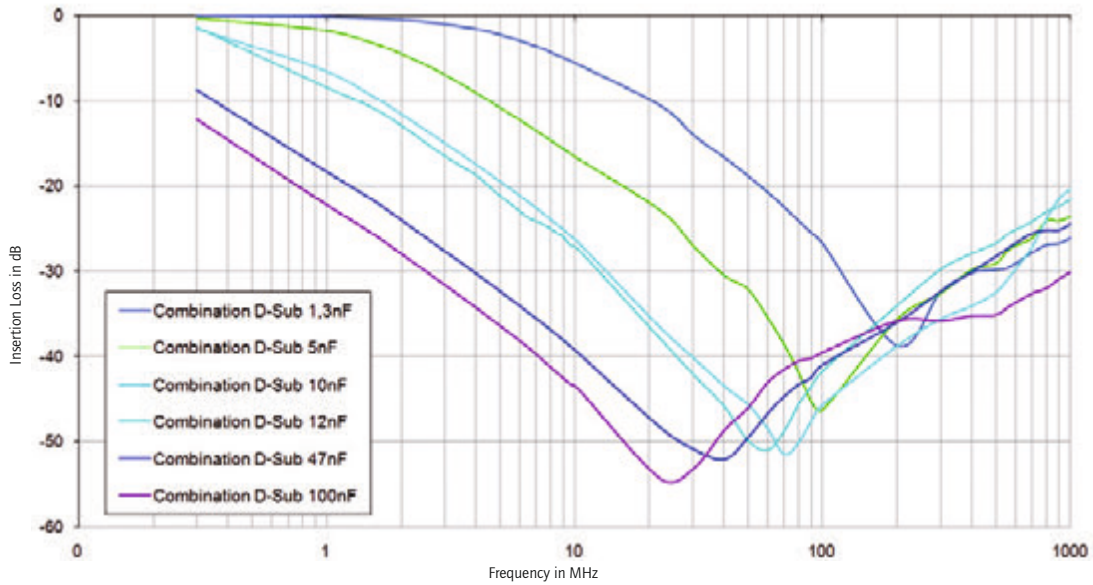


# FILTER COMBINATION D-SUB CONNECTORS

## Insertion loss

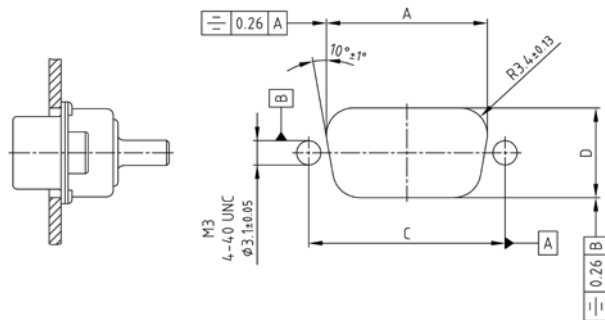
### C-Filter

Typical Insertion Loss

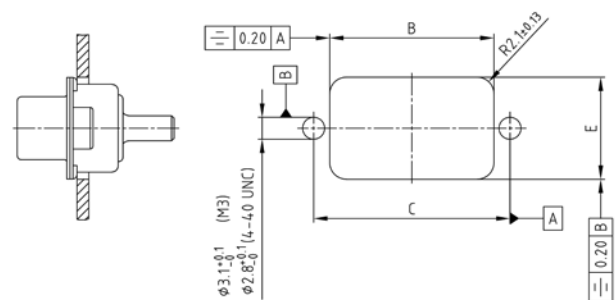


## Panel cut-out

### Back panel mounting



### Front panel mounting



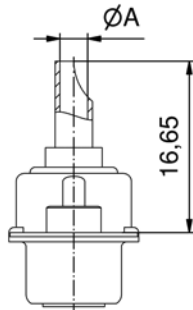
Shell size	Layout	A ± 0.1	B ± 0.1	C ± 0.1	D ± 0.1	E ± 0.1
1	2W2C	20.50	20.90	25.00	11.40	13.00
2	3W3S, 3W3C	28.80	29.20	33.30	11.40	13.00
3	5W5S	42.50	42.90	47.04	11.40	13.00
4	8W8S	59.10	59.40	63.50	11.40	13.00

Technical specifications are subject to change without notice.

## FILTER COMBINATION D-SUB CONNECTORS

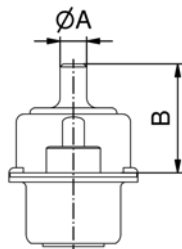
### Termination code high power contacts

#### Solder cup



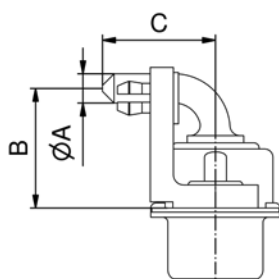
Termination Code	Current rating	AWG	Ø A [mm]
41	10 A	16-20	1.80
42	20 A	12-14	2.70
43	30 A	10-12	3.50
44	40 A	8-10	4.80

#### Solder pin straight



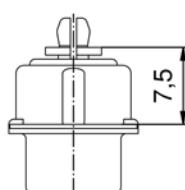
Termination Code	Current rating	Ø A [mm]	B ± 0.3 [mm]	PCB thickness [mm]	Hole diameter in PCB [mm]
48	20 A	1.95	9.65	1.6	2.30 ± 0.1
49	20 A	2.60	10.65	1.6	3.00 ± 0.1
50	20 A	2.85	10.05	1.6	3.20 ± 0.1
51	30 A	3.18	12.85	1.6/2.3/3.2	3.60 ± 0.1
52	40 A	3.75	11.10	1.6/2.3/3.2	4.10 ± 0.1

#### Solder pin angled

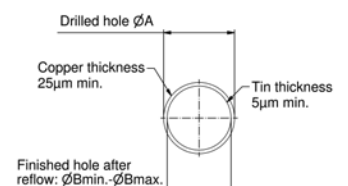


Termination Code	Current rating	Ø A [mm]	B ± 0.3 [mm]	C ± 0.3 [mm]	Hole diameter in PCB [mm]
56	20 A	2.85	11.65	11.00	3.20 ± 0.1
57	30 A	3.18	20.35	9.50	3.60 ± 0.1
58	40 A	3.75	11.65	11.00	4.10 ± 0.1

#### Press-fit contact



Termination Code	Current rating	Ø A ± 0.03 [mm]	Ø B min. [mm]	Ø B max. [mm]
P1	30 A	3.13	2.96	3.11
P2	30 A	3.27	3.10	3.25
P4	30 A	3.22	3.02	3.20

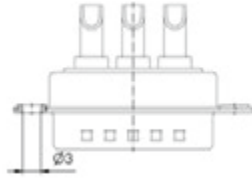
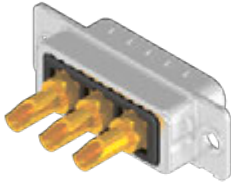


Technical specifications are subject to change without notice.

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder cup  
Precision machined contacts, AWG 8-20

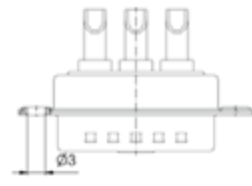
### Through-hole Ø 3 mm



For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

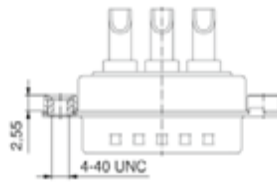
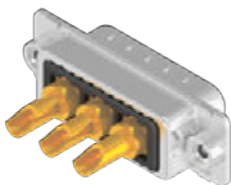
### Through-hole Ø 3 mm, coded version



For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

### 4-40 UNC threaded insert



For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

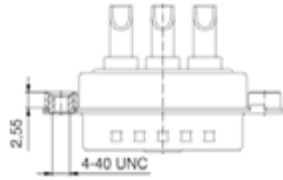
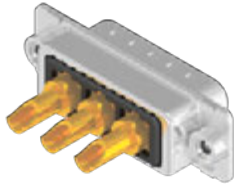
No. of poles	Current rating [A]	Working voltage [VDC]	AWG	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
3W3	10	16-20	47	E228329	3	3	3F3SSA22S41A10X	3F3SPA22S41A10X
	20	12-14					3F3SSA22S42A10X	3F3SPA22S42A10X
	30	10-12					3F3SSA22S43A10X	3F3SPA22S43A10X
	40	8-10					3F3SSA22S44A10X	3F3SPA22S44A10X
5W5	10	16-20	47	E228329	3	3	5F5SSA22S41A10X	5F5SPA22S41A10X
	20	12-14					5F5SSA22S42A10X	5F5SPA22S42A10X
	30	10-12					5F5SSA22S43A10X	5F5SPA22S43A10X
	40	8-10					5F5SSA22S44A10X	5F5SPA22S44A10X
8W8	10	16-20	47	E228329	3	3	8F8SSA22S41A10X	8F8SPA22S41A10X
	20	12-14					8F8SSA22S42A10X	8F8SPA22S42A10X
	30	10-12					8F8SSA22S43A10X	8F8SPA22S43A10X
	40	8-10					8F8SSA22S44A10X	8F8SPA22S44A10X

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder cup  
Precision machined contacts, AWG 8-20

4-40 UNC threaded insert, coded version



For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

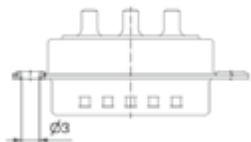
Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [VDC]	AWG	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C	10	16-20	47	E228329	3	2F2CSA22S41A30X	2F2CPA22S41A30X	
	20	12-14				2F2CSA22S42A30X	2F2CPA22S42A30X	
	30	10-12				2F2CSA22S43A30X	2F2CPA22S43A30X	
	40	8-10				2F2CSA22S44A30X	2F2CPA22S44A30X	
3W3C	10	16-20	47	E228329	3	3F3CSA22S41A30X	3F3CPA22S41A30X	
	20	12-14				3F3CSA22S42A30X	3F3CPA22S42A30X	
	30	10-12				3F3CSA22S43A30X	3F3CPA22S43A30X	
	40	8-10				3F3CSA22S44A30X	3F3CPA22S44A30X	

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin straight  
Precision machined contacts

Through-hole Ø 3 mm



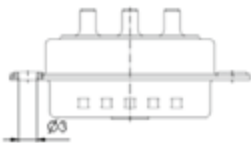
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact		
3W3	20	100	1.95	47	E228329	3	3F3SSA22S48A10X	3F3SPA22S48A10X		
			2.60				3F3SSA22S49A10X	3F3SPA22S49A10X		
	30	2.85	3F3SSA22S50A10X	3F3SPA22S50A10X						
		3.18	3F3SSA22S51A10X	3F3SPA22S51A10X						
	40	3.75	3F3SSA22S52A10X	3F3SPA22S52A10X						
		5W5	20	100			1.95	E228329	3	5F5SSA22S48A10X
	2.60						5F5SSA22S49A10X			5F5SPA22S49A10X
	30		2.85	5F5SSA22S50A10X			5F5SPA22S50A10X			
3.18			5F5SSA22S51A10X	5F5SPA22S51A10X						
40	3.75		5F5SSA22S52A10X	5F5SPA22S52A10X						
	8W8		20	100	1.95	E228329	3			8F8SSA22S48A10X
2.60					8F8SSA22S49A10X					8F8SPA22S49A10X
30			2.85	8F8SSA22S50A10X	8F8SPA22S50A10X					
		3.18	8F8SSA22S51A10X	8F8SPA22S51A10X						
40		3.75	8F8SSA22S52A10X	8F8SPA22S52A10X						

Through-hole Ø 3 mm, coded version



For other capacitance values refer to the part number creator.


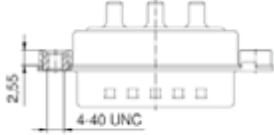
Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact		
2W2C	20	100	1.95	E228329	3	2F2CSA22S48A10X	2F2CPA22S48A10X			
			2.60			2F2CSA22S49A10X	2F2CPA22S49A10X			
	30	2.85	2F2CSA22S50A10X			2F2CPA22S50A10X				
		3.18	2F2CSA22S51A10X			2F2CPA22S51A10X				
	40	3.75	2F2CSA22S52A10X			2F2CPA22S52A10X				
		3W3C	20			100	1.95	E228329	3	3F3CSA22S48A10X
	2.60						3F3CSA22S49A10X			3F3CPA22S49A10X
	30		2.85			3F3CSA22S50A10X	3F3CPA22S50A10X			
3.18			3F3CSA22S51A10X	3F3CPA22S51A10X						
40	3.75		3F3CSA22S52A10X	3F3CPA22S52A10X						

# FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin straight  
Precision machined contacts

## 4-40 UNC threaded insert


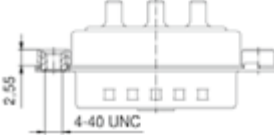
4-40 UNC threaded insert		No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	3W3	20	1.95	100	285	47	E228329	3	3F3SSA22S48A30X	3F3SPA22S48A30X
			2.60						3F3SSA22S49A30X	3F3SPA22S49A30X
		3.18	3F3SSA22S50A30X	3F3SPA22S50A30X						
		3.75	3F3SSA22S51A30X	3F3SPA22S51A30X						
	5W5	20	1.95	100	285	47	E228329	3	5F5SSA22S48A30X	5F5SPA22S48A30X
			2.60						5F5SSA22S49A30X	5F5SPA22S49A30X
		3.18	5F5SSA22S50A30X	5F5SPA22S50A30X						
		3.75	5F5SSA22S51A30X	5F5SPA22S51A30X						
	8W8	20	1.95	100	285	47	E228329	3	8F8SSA22S48A30X	8F8SPA22S48A30X
			2.60						8F8SSA22S49A30X	8F8SPA22S49A30X
		3.18	8F8SSA22S50A30X	8F8SPA22S50A30X						
		3.75	8F8SSA22S51A30X	8F8SPA22S51A30X						
	30	1.95	100	285	47	E228329	3	8F8SSA22S52A30X	8F8SPA22S52A30X	
		2.60						8F8SSA22S49A30X	8F8SPA22S49A30X	
	3.18	8F8SSA22S50A30X	8F8SPA22S50A30X							
	3.75	8F8SSA22S51A30X	8F8SPA22S51A30X							

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

## 4-40 UNC threaded insert, coded version

4-40 UNC threaded insert, coded version		No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	2W2C	20	1.95	100	285	47	E228329	3	2F2CSA22S48A30X	2F2CPA22S48A30X
			2.60						2F2CSA22S49A30X	2F2CPA22S49A30X
		3.18	2F2CSA22S50A30X	2F2CPA22S50A30X						
		3.75	2F2CSA22S51A30X	2F2CPA22S51A30X						
	3W3C	20	1.95	100	285	47	E228329	3	3F3CSA22S48A30X	3F3CPA22S48A30X
			2.60						3F3CSA22S49A30X	3F3CPA22S49A30X
		3.18	3F3CSA22S50A30X	3F3CPA22S50A30X						
		3.75	3F3CSA22S51A30X	3F3CPA22S51A30X						
		30	1.95	100	285	47	E228329	3	3F3CSA22S52A30X	3F3CPA22S52A30X
			2.60						3F3CSA22S49A30X	3F3CPA22S49A30X
		3.18	3F3CSA22S50A30X	3F3CPA22S50A30X						
		3.75	3F3CSA22S51A30X	3F3CPA22S51A30X						

For other capacitance values refer to the part number creator.


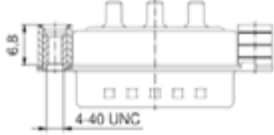
Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin straight  
Precision machined contacts

4-40 UNC threaded rear spacer


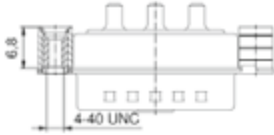
Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

		No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	3W3	20	1.95	100	285	47	E228329	3	3F3SSA22S48A50X	3F3SPA22S48A50X
			2.60						3F3SSA22S49A50X	3F3SPA22S49A50X
		3.18	3F3SSA22S50A50X	3F3SPA22S50A50X						
		3.75	3F3SSA22S51A50X	3F3SPA22S51A50X						
	5W5	20	1.95	100	285	47	E228329	3	5F5SSA22S48A50X	5F5SPA22S48A50X
			2.60						5F5SSA22S49A50X	5F5SPA22S49A50X
		3.18	5F5SSA22S50A50X	5F5SPA22S50A50X						
		3.75	5F5SSA22S51A50X	5F5SPA22S51A50X						
	8W8	20	1.95	100	285	47	E228329	3	8F8SSA22S48A50X	8F8SPA22S48A50X
			2.60						8F8SSA22S49A50X	8F8SPA22S49A50X
		3.18	8F8SSA22S50A50X	8F8SPA22S50A50X						
		3.75	8F8SSA22S51A50X	8F8SPA22S51A50X						
	30	1.95	100	285	47	E228329	3	8F8SSA22S52A50X	8F8SPA22S52A50X	
		2.60						8F8SSA22S49A50X	8F8SPA22S49A50X	
	3.18	8F8SSA22S50A50X	8F8SPA22S50A50X							
	3.75	8F8SSA22S51A50X	8F8SPA22S51A50X							

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

4-40 UNC threaded rear spacer, coded version

		No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	2W2C	20	1.95	100	285	47	E228329	3	2F2CSA22S48A50X	2F2CPA22S48A50X
			2.60						2F2CSA22S49A50X	2F2CPA22S49A50X
		3.18	2F2CSA22S50A50X	2F2CPA22S50A50X						
		3.75	2F2CSA22S51A50X	2F2CPA22S51A50X						
	3W3C	20	1.95	100	285	47	E228329	3	3F3CSA22S48A50X	3F3CPA22S48A50X
			2.60						3F3CSA22S49A50X	3F3CPA22S49A50X
		3.18	3F3CSA22S50A50X	3F3CPA22S50A50X						
		3.75	3F3CSA22S51A50X	3F3CPA22S51A50X						
		30	1.95	100	285	47	E228329	3	3F3CSA22S52A50X	3F3CPA22S52A50X
			2.60						3F3CSA22S49A50X	3F3CPA22S49A50X
		3.18	3F3CSA22S50A50X	3F3CPA22S50A50X						
		3.75	3F3CSA22S51A50X	3F3CPA22S51A50X						


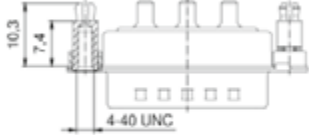
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin straight  
Precision machined contacts

4-40 UNC threaded rear spacer clip for PCB 1.6 mm


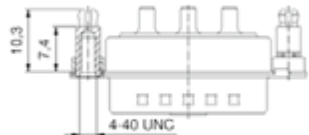
		No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	3W3	20	1.95	2.60	47	E228329	3	3F3SSA22S48E20X	3F3SPA22S48E20X	
			2.60					3F3SSA22S49E20X	3F3SPA22S49E20X	
		100	2.85	3F3SSA22S50E20X	3F3SPA22S50E20X					
			3.18	3F3SSA22S51E20X	3F3SPA22S51E20X					
	5W5	20	1.95	2.60	47	E228329	3	5F5SSA22S48E20X	5F5SPA22S48E20X	
			2.60					5F5SSA22S49E20X	5F5SPA22S49E20X	
		100	2.85	5F5SSA22S50E20X	5F5SPA22S50E20X					
			3.18	5F5SSA22S51E20X	5F5SPA22S51E20X					
	8W8	20	1.95	2.60	47	E228329	3	8F8SSA22S48E20X	8F8SPA22S48E20X	
			2.60					8F8SSA22S49E20X	8F8SPA22S49E20X	
		100	2.85	8F8SSA22S50E20X	8F8SPA22S50E20X					
			3.18	8F8SSA22S51E20X	8F8SPA22S51E20X					
40	3.75	8F8SSA22S52E20X	8F8SPA22S52E20X							

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05


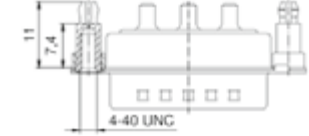
4-40 UNC threaded rear spacer clip for PCB 1.6 mm, coded version

		No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	2W2C	20	1.95	2.60	47	E228329	3	2F2CSA22S48E20X	2F2CPA22S48E20X	
			2.60					2F2CSA22S49E20X	2F2CPA22S49E20X	
		100	2.85	2F2CSA22S50E20X	2F2CPA22S50E20X					
			3.18	2F2CSA22S51E20X	2F2CPA22S51E20X					
	3W3C	20	1.95	2.60	47	E228329	3	3F3CSA22S48E20X	3F3CPA22S48E20X	
			2.60					3F3CSA22S49E20X	3F3CPA22S49E20X	
		100	2.85	3F3CSA22S50E20X	3F3CPA22S50E20X					
			3.18	3F3CSA22S51E20X	3F3CPA22S51E20X					
	40	3.75	3F3CSA22S52E20X	3F3CPA22S52E20X						

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

4-40 UNC threaded rear spacer clip for PCB 2.3 mm

		No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	3W3	30	3.18	47	E228329	3	3F3SSA22S51E40X	3F3SPA22S51E40X		
			3.75				3F3SSA22S52E40X	3F3SPA22S52E40X		
	5W5	30	3.18	47	E228329	3	5F5SSA22S51E40X	5F5SPA22S51E40X		
			3.75				5F5SSA22S52E40X	5F5SPA22S52E40X		
	8W8	30	3.18	47	E228329	3	8F8SSA22S51E40X	8F8SPA22S51E40X		
			3.75				8F8SSA22S52E40X	8F8SPA22S52E40X		

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

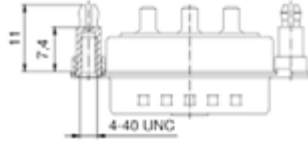


## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin straight  
Precision machined contacts

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

### 4-40 UNC threaded rear spacer clip for PCB 2.3 mm, coded version

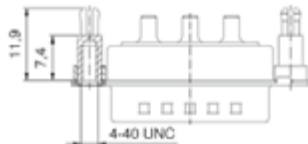


For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C	30	3.18	47	E228329	3	3	2F2CSA22S51E40X	2F2CPA22S51E40X
	100	3.18					2F2CSA22S52E40X	2F2CPA22S52E40X
	40	3.75					2F2CSA22S52E40X	2F2CPA22S52E40X
3W3C	30	3.18	47	E228329	3	3	3F3CSA22S51E40X	3F3CPA22S51E40X
	100	3.18					3F3CSA22S52E40X	3F3CPA22S52E40X
	40	3.75					3F3CSA22S52E40X	3F3CPA22S52E40X

### 4-40 UNC threaded rear spacer clip for PCB 3.2 mm

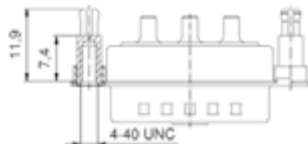


For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

3W3	30	3.18	47	E228329	3	3	3F3SSA22S51E60X	3F3SPA22S51E60X
	100	3.18					3F3SSA22S52E60X	3F3SPA22S52E60X
	40	3.75					3F3SSA22S52E60X	3F3SPA22S52E60X
5W5	30	3.18	47	E228329	3	3	5F5SSA22S51E60X	5F5SPA22S51E60X
	100	3.18					5F5SSA22S52E60X	5F5SPA22S52E60X
	40	3.75					5F5SSA22S52E60X	5F5SPA22S52E60X
8W8	30	3.18	47	E228329	3	3	8F8SSA22S51E60X	8F8SPA22S51E60X
	100	3.18					8F8SSA22S52E60X	8F8SPA22S52E60X
	40	3.75					8F8SSA22S52E60X	8F8SPA22S52E60X

### 4-40 UNC threaded rear spacer clip for PCB 3.2 mm, coded version



For other capacitance values refer to the part number creator.

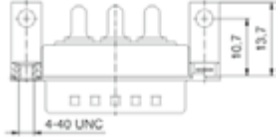
Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

2W2C	30	3.18	47	E228329	3	3	2F2CSA22S51E60X	2F2CPA22S51E60X
	100	3.18					2F2CSA22S52E60X	2F2CPA22S52E60X
	40	3.75					2F2CSA22S52E60X	2F2CPA22S52E60X
3W3C	30	3.18	47	E228329	3	3	3F3CSA22S51E60X	3F3CPA22S51E60X
	100	3.18					3F3CSA22S52E60X	3F3CPA22S52E60X
	40	3.75					3F3CSA22S52E60X	3F3CPA22S52E60X

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin angled  
Precision machined contacts, metal bracket

### 4-40 UNC threaded insert



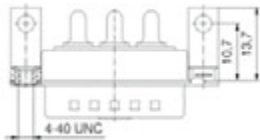
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
3W3	20	285			E228329	3	3F3SSA22S56K20X	3F3SPA22S56K20X
	30	100	3.20	47			3F3SSA22S57K20X	3F3SPA22S57K20X
	40	3.75					3F3SSA22S58K20X	3F3SPA22S58K20X
5W5	20	285			E228329	3	5F5SSA22S56K20X	5F5SPA22S56K20X
	30	100	3.20	47			5F5SSA22S57K20X	5F5SPA22S57K20X
	40	3.75					5F5SSA22S58K20X	5F5SPA22S58K20X
8W8	20	285			E228329	3	8F8SSA22S56K20X	8F8SPA22S56K20X
	30	100	3.20	47			8F8SSA22S57K20X	8F8SPA22S57K20X
	40	3.75					8F8SSA22S58K20X	8F8SPA22S58K20X

### 4-40 UNC threaded insert, coded version

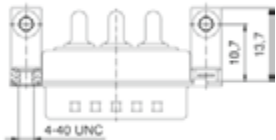
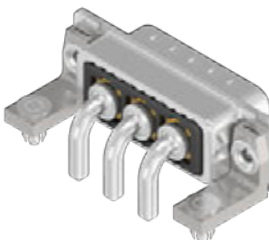


For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

2W2C	20	285			E228329	3	2F2CSA22S56K20X	2F2CPA22S56K20X
	30	100	3.20	47			2F2CSA22S57K20X	2F2CPA22S57K20X
	40	3.75					2F2CSA22S58K20X	2F2CPA22S58K20X
3W3C	20	285			E228329	3	3F3CSA22S56K20X	3F3CPA22S56K20X
	30	100	3.20	47			3F3CSA22S57K20X	3F3CPA22S57K20X
	40	3.75					3F3CSA22S58K20X	3F3CPA22S58K20X

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert



For other capacitance values refer to the part number creator.

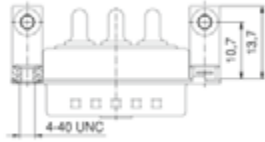
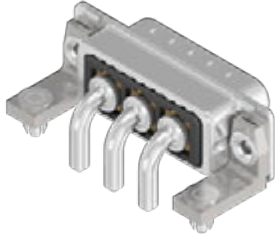
Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

3W3	20	285			E228329	3	3F3SSA22S56K40X	3F3SPA22S56K40X
	30	100	3.20	47			3F3SSA22S57K40X	3F3SPA22S57K40X
	40	3.75					3F3SSA22S58K40X	3F3SPA22S58K40X
5W5	20	285			E228329	3	5F5SSA22S56K40X	5F5SPA22S56K40X
	30	100	3.20	47			5F5SSA22S57K40X	5F5SPA22S57K40X
	40	3.75					5F5SSA22S58K40X	5F5SPA22S58K40X
8W8	20	285			E228329	3	8F8SSA22S56K40X	8F8SPA22S56K40X
	30	100	3.20	47			8F8SSA22S57K40X	8F8SPA22S57K40X
	40	3.75					8F8SSA22S58K40X	8F8SPA22S58K40X

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin angled  
Precision machined contacts, metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded version



For other capacitance values refer to the part number creator.

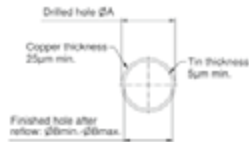
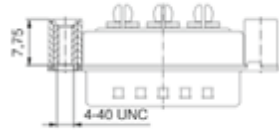
Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C	20	285			E228329	3	2F2CSA22S56K40X	2F2CPA22S56K40X
	30	100	3.20	47			2F2CSA22S57K40X	2F2CPA22S57K40X
	40	3.75					2F2CSA22S58K40X	2F2CPA22S58K40X
3W3C	20	285			E228329	3	3F3CSA22S56K40X	3F3CPA22S56K40X
	30	100	3.20	47			3F3CSA22S57K40X	3F3CPA22S57K40X
	40	3.75					3F3CSA22S58K40X	3F3CPA22S58K40X

Press-fit contact straight  
Precision machined contacts

4-40 UNC threaded rear spacer



For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

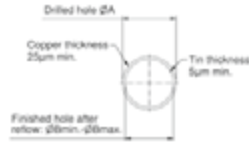
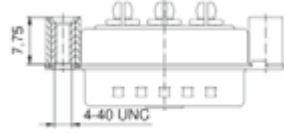
3W3	30	100	3.11	47	E228329	3	3F3SSA22SP1AA0X	3F3SPA22SP1AA0X
			3.25				3F3SSA22SP2AA0X	3F3SPA22SP2AA0X
			3.20				3F3SSA22SP4AA0X	3F3SPA22SP4AA0X
5W5	30	100	3.11	47	E228329	3	5F5SSA22SP1AA0X	5F5SPA22SP1AA0X
			3.25				5F5SSA22SP2AA0X	5F5SPA22SP2AA0X
			3.20				5F5SSA22SP4AA0X	5F5SPA22SP4AA0X
8W8	30	100	3.11	47	E228329	3	8F8SSA22SP1AA0X	8F8SPA22SP1AA0X
			3.25				8F8SSA22SP2AA0X	8F8SPA22SP2AA0X
			3.20				8F8SSA22SP4AA0X	8F8SPA22SP4AA0X

Termination Code	ø A	ø B min.	ø B max.
P1	3.13	2.96	3.11
P2	3.27	3.10	3.25
P4	3.22	3.02	3.20

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Press-fit contact straight  
Precision machined contacts

4-40 UNC threaded rear spacer, coded version



For other capacitance values refer to the part number creator.

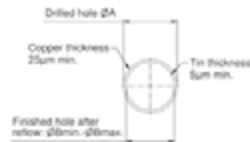
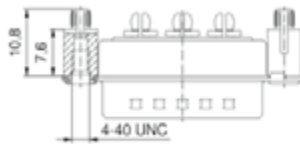
Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [VDC]	Hole diameter PCB [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C	30	100	3.11	47	E228329	3	2F2CSA22SP1AA0X	2F2CPA22SP1AA0X
			3.25				2F2CSA22SP2AA0X	2F2CPA22SP2AA0X
			3.20				2F2CSA22SP4AA0X	2F2CPA22SP4AA0X
3W3C	30	100	3.11	47	E228329	3	3F3CSA22SP1AA0X	3F3CPA22SP1AA0X
			3.25				3F3CSA22SP2AA0X	3F3CPA22SP2AA0X
			3.20				3F3CSA22SP4AA0X	3F3CPA22SP4AA0X

Termination Code	ø A	ø B min.	ø B max.
P1	3.13	2.96	3.11
P2	3.27	3.10	3.25
P4	3.22	3.02	3.20

4-40 UNC rear press-fit spacer



For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

3W3	30	100	3.11	47	E228329	3	3F3SSA22SP1W40X	3F3SPA22SP1W40X
			3.25				3F3SSA22SP2W40X	3F3SPA22SP2W40X
			3.20				3F3SSA22SP4W40X	3F3SPA22SP4W40X
5W5	30	100	3.11	47	E228329	3	5F5SSA22SP1W40X	5F5SPA22SP1W40X
			3.25				5F5SSA22SP2W40X	5F5SPA22SP2W40X
			3.20				5F5SSA22SP4W40X	5F5SPA22SP4W40X
8W8	30	100	3.11	47	E228329	3	8F8SSA22SP1W40X	8F8SPA22SP1W40X
			3.25				8F8SSA22SP2W40X	8F8SPA22SP2W40X
			3.20				8F8SSA22SP4W40X	8F8SPA22SP4W40X

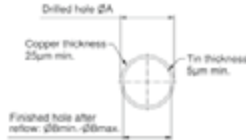
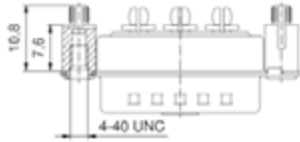
Termination Code	ø A	ø B min.	ø B max.
P1	3.13	2.96	3.11
P2	3.27	3.10	3.25
P4	3.22	3.02	3.20

# FILTER COMBINATION D-SUB CONNECTORS C-Filter

Press-fit contact straight  
Precision machined contacts

4-40 UNC rear press-fit spacer, coded version

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

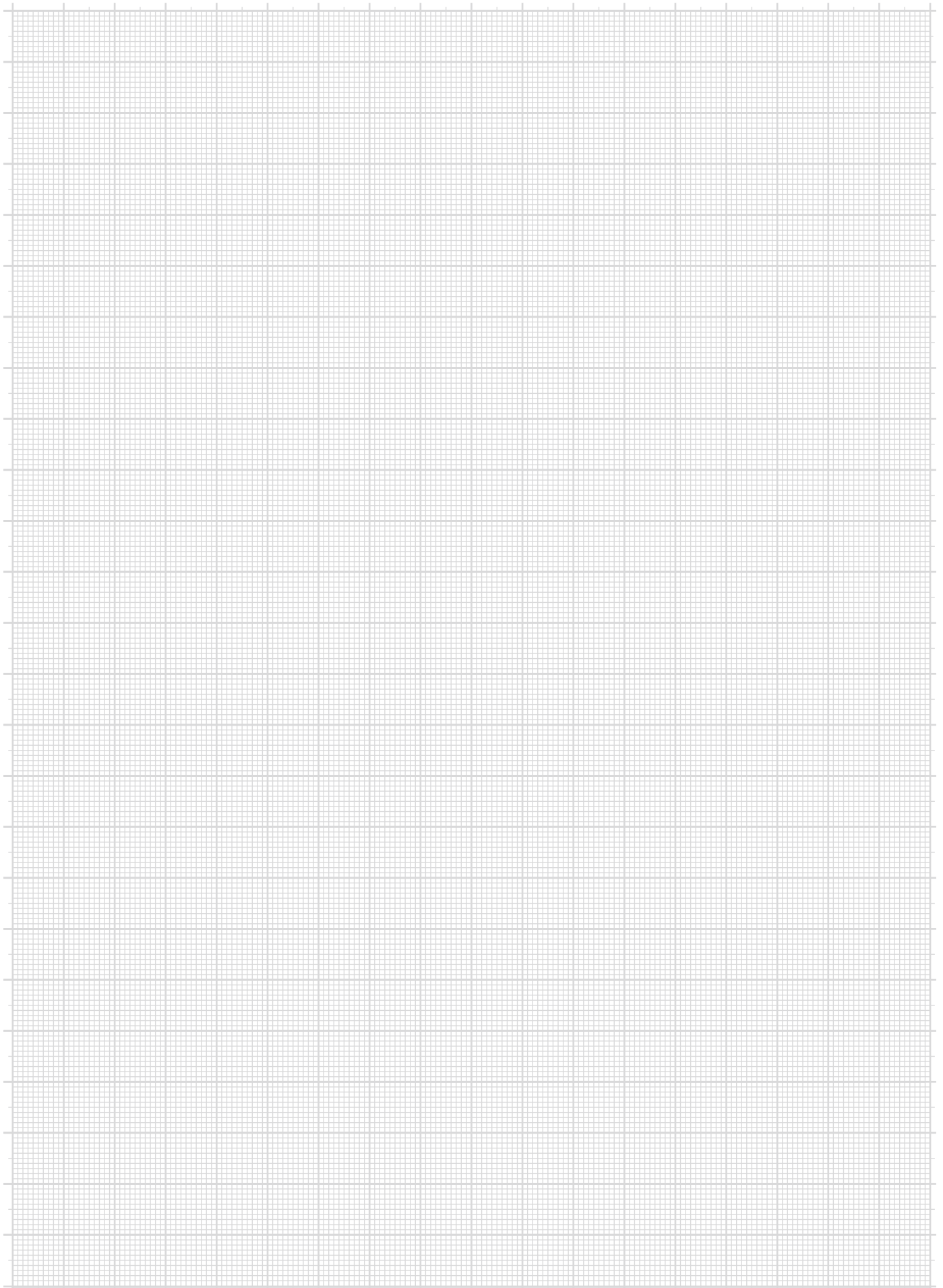


For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

No. of poles	Current rating [A]	Working voltage [VDC]	Hole diameter PCB [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C	30	100	3.11	47	E228329	3	2F2CSA22SP1W40X	2F2CPA22SP1W40X
			3.25				2F2CSA22SP2W40X	2F2CPA22SP2W40X
			3.20				2F2CSA22SP4W40X	2F2CPA22SP4W40X
3W3C	30	100	3.11	47	E228329	3	3F3CSA22SP1W40X	3F3CPA22SP1W40X
			3.25				3F3CSA22SP2W40X	3F3CPA22SP2W40X
			3.20				3F3CSA22SP4W40X	3F3CPA22SP4W40X

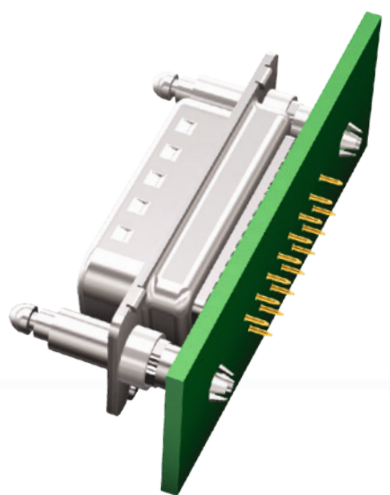
Termination Code	ø A	ø B min.	ø B max.
P1	3.13	2.96	3.11
P2	3.27	3.10	3.25
P4	3.22	3.02	3.20



SECTION 5

# D-SUB HOODS AND ACCESSORIES







**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

**D-SUB Metal Hoods, Zinc die-cast, surface nickel plated**  
Straight cable entry, with cable sleeve

4-40 UNC short screw

No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
09			31.7	30			E202784	165X17409X
15			40	32		5		165X17419X
25	1	/	53.7	35	15	7		165X17429X
37			70.2	41		7		165X17439X
50			67.8	17.7	9.3			165X17449X

On request:  
• M3 thread

4-40 Unc jack screw

No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
09			31.7	45.1			E202784	165X17309X
15			40	48.2		5		165X17319X
25	1	/	53.7	51.3	15	7		165X17329X
37			70.2	54.4		7		165X17339X
50			67.8	57.5	17.7	9.3		165X17349X

**D-SUB Metal Hoods, Zinc die-cast, surface nickel plated**  
Side cable entry, with cable sleeve

4-40 UNC short screw

No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
09			31.8	39.5			E202784	165X17559X
15			40.3	41		5		165X17569X
25	/	1	54	45	15.4	7		165X17579X
37			70.2	48		7		165X17589X
50			67.8	18.5	9.3			165X17599X

**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

**D-SUB Metal Hoods, Zinc die-cast**  
Variable cable entries

Cable clamp must be ordered separately  
On request:  
• Crimp flange

**Type 1 without jack screws**

		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure D [mm]	UL-File	Part No.
	09	/			32			E202784	165X10819X
	15				39.3	14.8	12.1		165X10829X
	25		2		53.2				165X10839X
	37		1		69.5				165X10849X
	50				67	17.8	14.6		165X10859X

**Type 2 without jack screws**

	09	/			32			E202784	165X11159X
	15				39.3	14.8	12.1		165X10869X
	25		2		53.2				165X10879X
	37		1		69.5				165X10889X
	50				67	17.8	14.6		165X10899X

**Cable clamp**

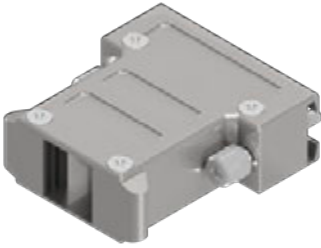
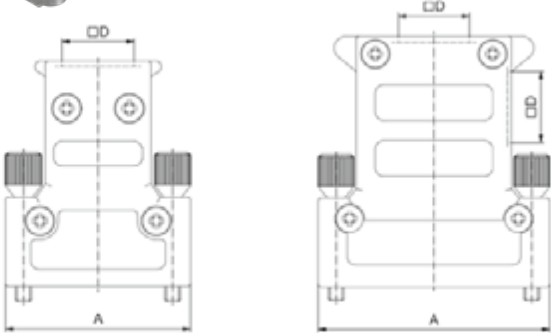
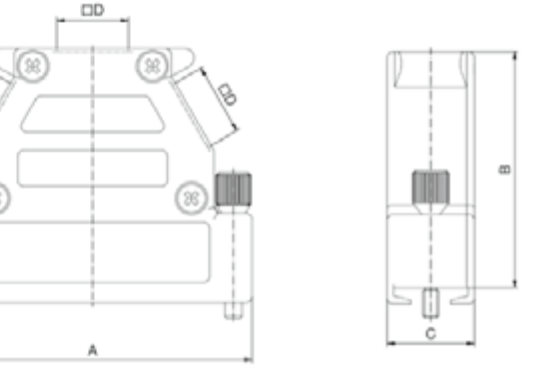
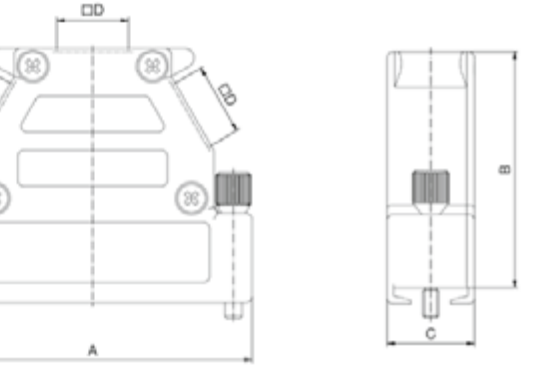
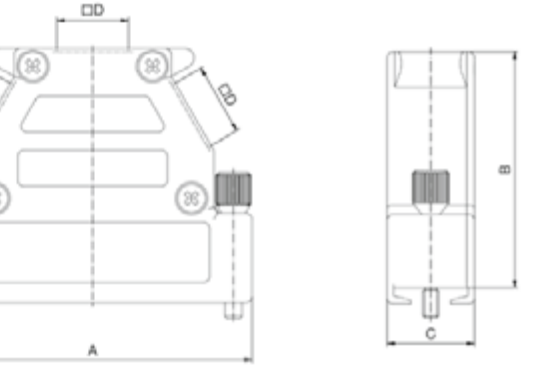
		No. of poles	Cable diameter	Part No.
	09-37		3-12 mm	160X11189X
	50		5-14 mm	160X11199X

**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

**D-SUB Metal Hoods, Zinc die-cast**  
Variable cable entries

Type 1 Jack screws

Cable clamp must be ordered separately  
On request:  
• M3 thread  
• Crimp flange

Type 1 Jack screws		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
		09	/	31	35.5					165X11609X
		15	1	39.4						165X11619X
		25	1	53.2	40	14.8	12.1	E202784		165X11629X
		37	2	69.6						165X11639X
		50		67	42	17.8	14.6			165X11649X

**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

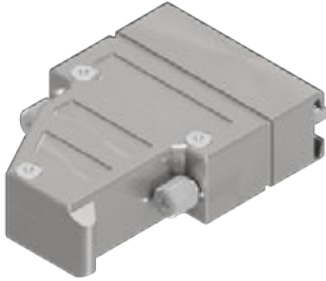
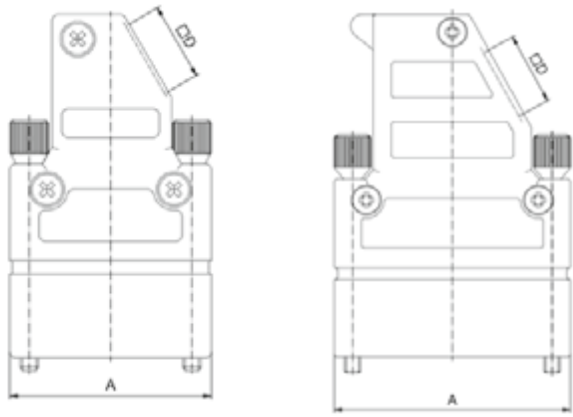
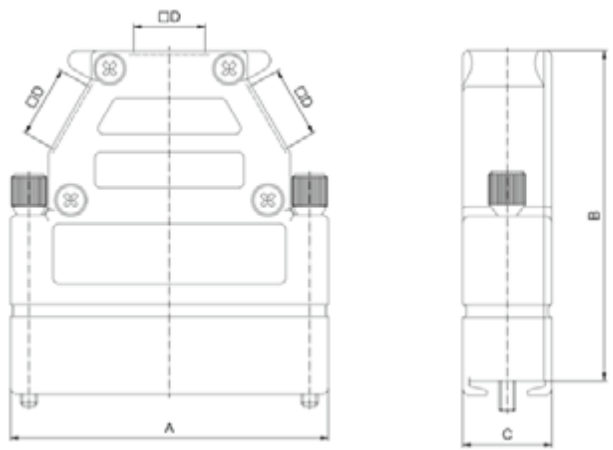
**D-SUB Metal Hoods, Zinc die-cast**  
Variable cable entries

Type 2 Jack screws

Cable clamp must be ordered separately  
On request:  
• M3 thread  
• Crimp flange

No. of poles  
Number of straight cable entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File


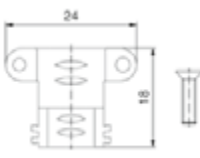
Part No.

  	09	/	31	50.5				165X14409X
	15	1	39.4		14.8	12.1		165X14419X
	25	1	53.2	55			E202784	165X14429X
	37	2	69.6					165X14439X
	50		67	57	17.8	14.6		165X14449X

Cable clamp

No. of poles

Cable diameter

 	09-37	3-12 mm	160X11189X
	50	5-14 mm	160X11199X

**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

**D-SUB Metal Hoods, Zinc die-cast**  
Variable cable entries

Cable clamp must be ordered separately  
On request:  
• Crimp flange

Slide lock

No. of poles  
Number of straight cable entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure D [mm]  
UL-File

Part No.

	09	/	32	14.8	12.1	E202784	165X11659X
	15		39.3				165X11669X
	25	2	53.2				165X11679X
	37	1	69.5				165X11689X
	50		67				17.8

Cable clamp

No. of poles  
Cable diameter

	09-37	3-12 mm	160X11189X
	50	5-14 mm	160X11199X

Locking hooks for slide lock

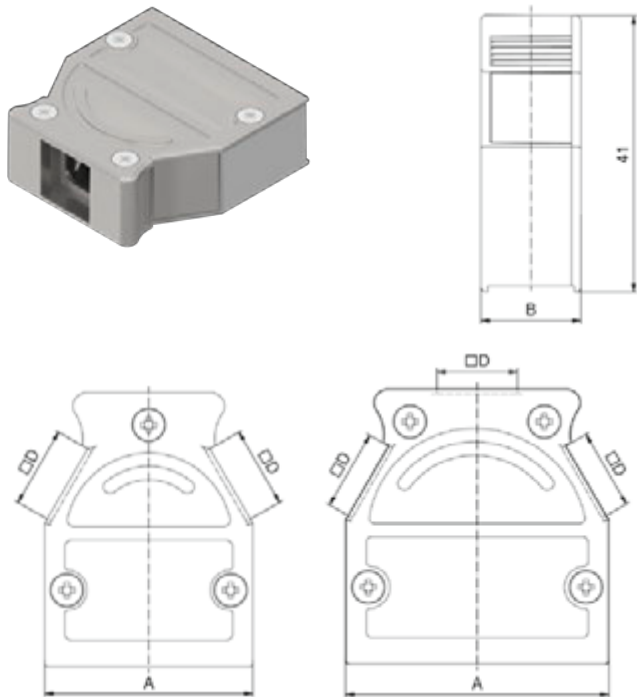

	09-37		165X10119X
	50		165X10129X

**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

**D-SUB Metal Hoods, Zinc die-cast**  
Variable cable entries

Without jack screw, internal ground

Cable clamp must be ordered separately

		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure D [mm]	UL-File	Part No.
	09 /			31				E202784	600X51109X
	15			39		14.8	12 x 0.9		600X51115X
	25	2		53					600X51125X
	37	1		69.5					600X51137X
	50			67	17.6	14.3 x 11.6			600X51150X
<b>Cable clamp</b>		<i>No. of poles</i>		<i>Cable diameter</i>					
	09-37		3-12 mm						160X10139X
	50		5-14 mm						160X10149X

## D-SUB HOODS AND ACCESSORIES


### D-SUB Metal Hoods, Zinc die-cast Variable cable entries

Cable clamp must be ordered separately  
On request:  
• M3 thread

4-40 UNC jack screw

No. of poles  
Number of straight cable entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File


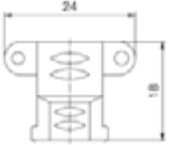
Part No.

	09		31	37.2	15	8 x 9.00	E202784	600X51209X
	15	1	39	35.2		11 x 9.00		600X51215X
	25	2	53	42.7	14.8	11.5 x 9.00		600X51225X

Cable clamp

No. of poles

Cable diameter

		09-37	3-12 mm	160X10139X
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**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding


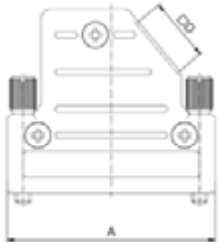
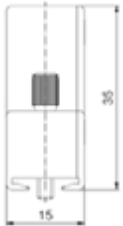
**D-SUB Metal Hoods, Zinc die-cast**  
Side cable entry, jack screws

Cable clamp must be ordered separately  
On request:  
• M3 thread

With jack screw, internal ground


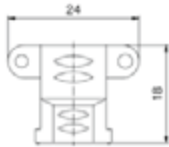
No. of poles  
Number of straight cable entries  
Number of side cable entries  
Measure A [mm]  
Measure D [mm]  
UL-File

Part No.

  	09	/	1	31	10 x 9.2	E202784	600X51309X
	15			39	12 x 9.2		600X51315X
	25			53			600X51325X

Cable clamp

No. of poles  
Cable diameter

 	09-25	3-12 mm	160X10139X
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**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

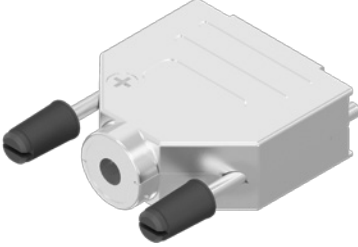
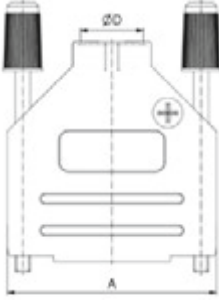

D-SUB Metal Hoods, Zinc die-cast, surface nickel plated  
Straight cable entry, plastic strain relief

Attenuation factor: > 40 dB between 30 Mhz and 1 GHz  
On request:  
• M3 thread

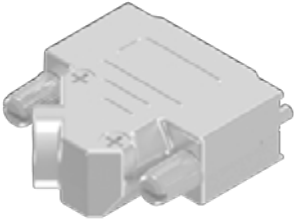
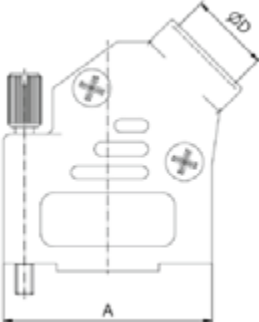
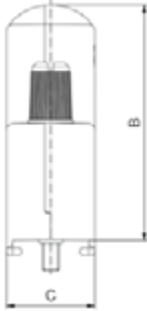
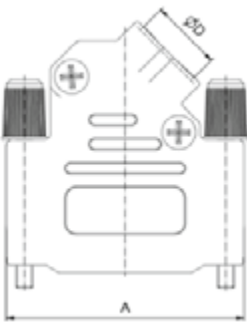
4-40 UNC jack screw

No. of poles  
Number of straight cable entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure D [mm]  
UL-File

Part No.

  	09	1	/	31.2	38.3	4 - 13	E202784	165X02609X
	15			39.3	40.5			165X02619X
	25			53.4	47.8			165X02629X
	37			69.9	52.2			165X02639X

4-40 UNC jack screw

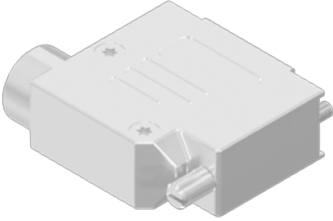
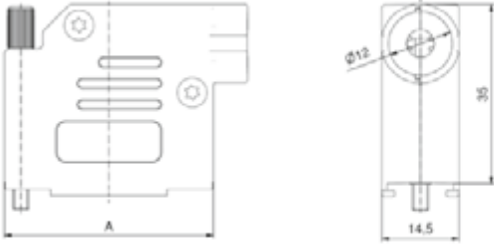
   	09	/	1	31	36.2	4 - 13	E202784	165X02689X
	15			39.5	40.2			165X02699X
	25			53.2	40.2			165X02709X
	37			69.7				165X02719X

**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

D-SUB Metal Hoods, Zinc die-cast, surface nickel plated  
Side cable entry, plastic strain relief

4-40 UNC jack screw

Attenuation factor: > 40 dB between 30 Mhz and 1 GHz  
On request:  
• M3 thread


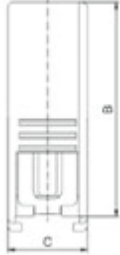
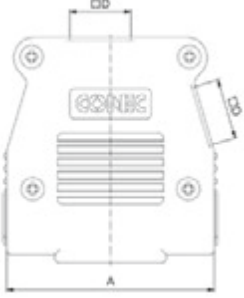
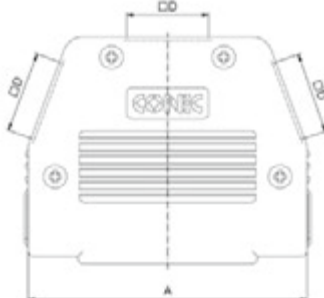
	No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Part No.
 	09	/	1	37.7	16-002730
	15			46	16-002740

**D-SUB HOODS AND ACCESSORIES**  
CONEC SnapLock

D-SUB Plastic Hoods, unshielded  
Variable cable entries

SnapLock, plastic black

For hood to hood connection please order connection bolts separately

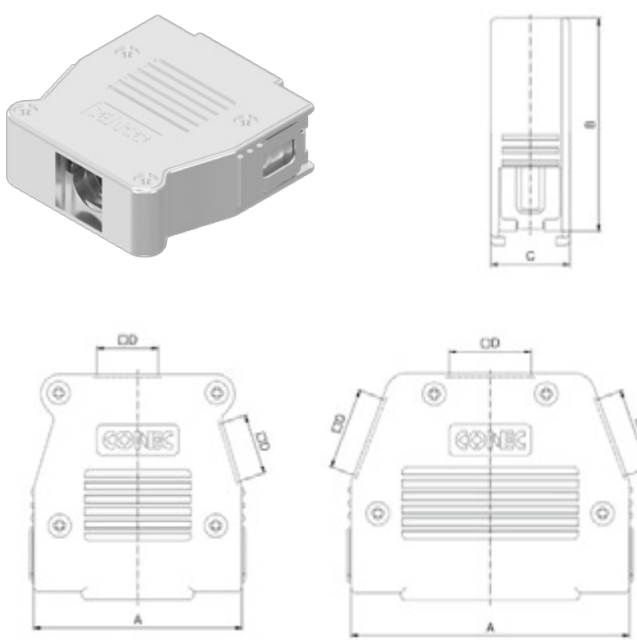
	No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Part No.
   	09	1	1	32.5	15.4	41.5	8.5	16-001810
	15			40.8			10	16-001820
	25			54.4			11	16-001830
	37			70.9			12	16-001840
	50			68.5			18.4	16-001850

## D-SUB HOODS AND ACCESSORIES CONEC SnapLock

### D-SUB Plastic Hoods, shielded Variable cable entries

SnapLock, plastic metallized

For hood to hood connection please order connection bolts separately

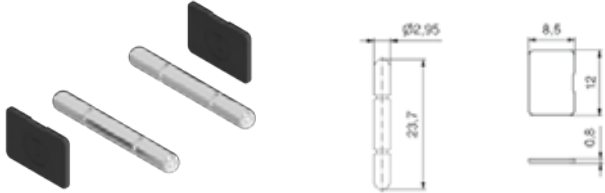
		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Part No.
	09			1	32.5			8.5	16-001750
	15				40.8			10	16-001760
	25	1			54.4	41.5	15.4		16-001770
	37			2	70.9			11	16-001780
	50				68.5		18.4	12	16-001790

## D-SUB HOODS AND ACCESSORIES CONEC SnapLock

### Kit Encoding Connection bolts for SnapLock

Locking Kit hood-to-hood

Part No.

									16-002200
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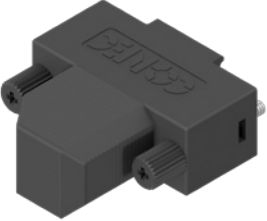
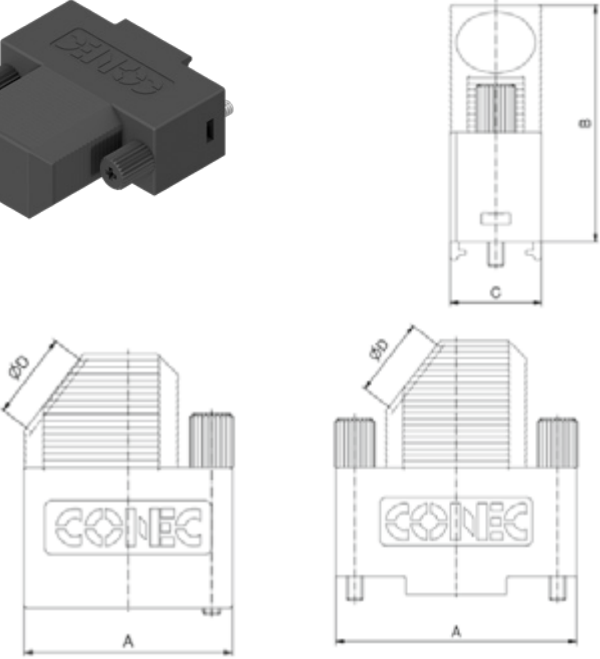
## D-SUB HOODS AND ACCESSORIES

### D-SUB Plastic Hoods, unshielded Side cable entry

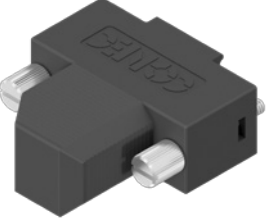
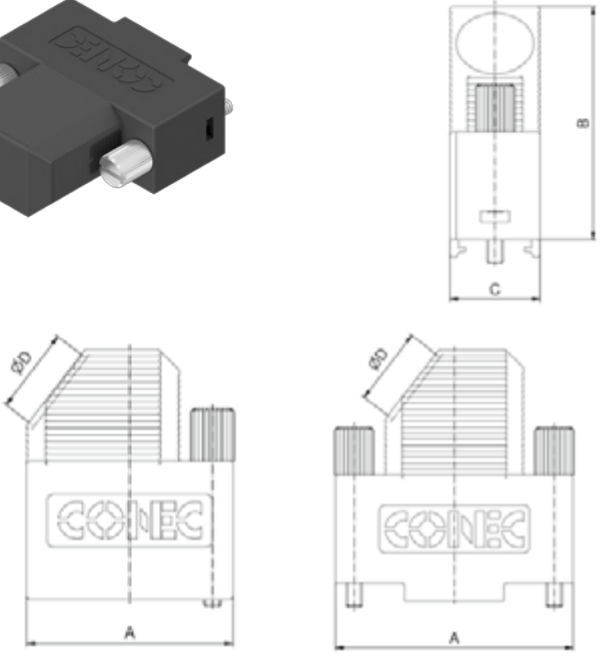
Plastic black, jack screws with plastic head 4-40 UNC

No. of poles  
Number of straight cable  
entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File

Part No.

 	09			31.3			8	165X11709X
	15			39.62			9	165X11719X
	25	/	1	53.52	39.15	15	11	165X11729X
	37			69.8				165X11739X
	50			67.41	19	14.5		165X11749X



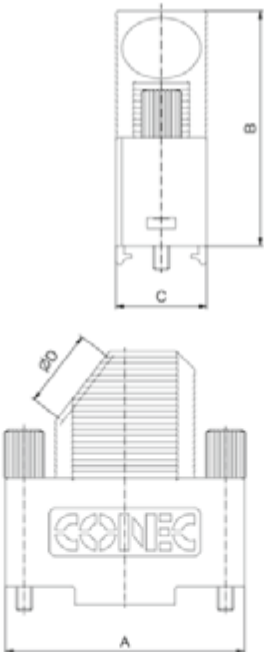
Plastic black, jack screws 4-40 UNC

 	09			31.3			8	165X00829A
	15			39.62			9	165X00839A
	25	/	1	53.52	39.15	15	11	165X00849A
	37			69.8				165X00859A
	50			67.41	19	14.5		165X00869A



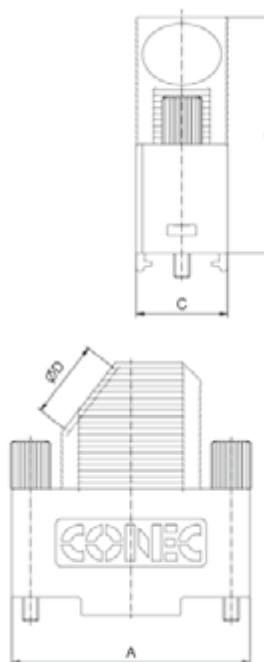
## D-SUB HOODS AND ACCESSORIES

### D-SUB Plastic Hoods, unshielded Side cable entry

Plastic grey, jack screws with plastic head 4-40 UNC

		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
  	09			31.3				8	E202784	165X16019X
	15			39.62				9		165X16029X
	25 /	1	53.52	39.15	15			11		165X16039X
	37		69.8							165X16049X
	50		67.41	19	14.5					165X16059X

Plastic grey, jack screws 4-40 UNC

  	09			31.3				8	E202784	165X16069X
	15			39.62				9		165X16079X
	25 /	1	53.52	39.15	15			11		165X16089X
	37		69.8							165X16099X
	50		67.41	19	14.5					165X16109X

## D-SUB HOODS AND ACCESSORIES

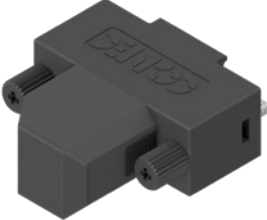
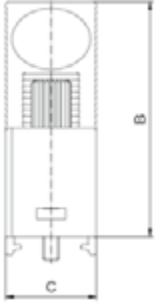

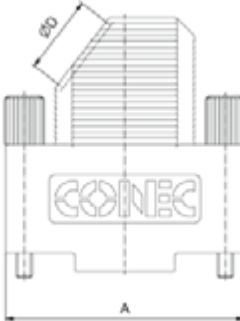
### D-SUB Plastic Hoods, shielded Side cable entry

Attenuation factor at 10 MHz > 60dB

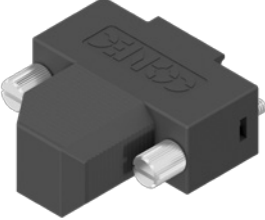
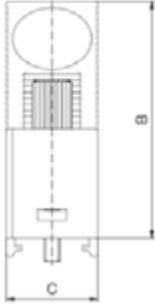
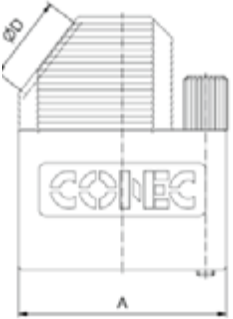
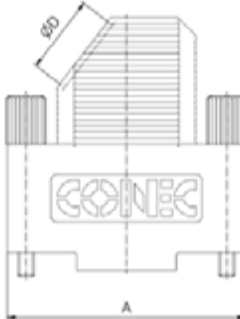
Plastic black, jack screws with plastic head 4-40 UNC

No. of poles  
Number of straight cable  
entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File

Part No.

   	09			31.3			8	E202784	165X11759X
	15			39.62			9		165X11769X
	25 /	1	53.52	39.15	15		11		165X11779X
	37		69.8						165X11789X
	50		67.41	19	14.5				165X11799X

Plastic black, jack screws 4-40 UNC

   	09			31.3			8	E202784	165X00779A
	15			39.62			9		165X00789A
	25 /	1	53.52	39.15	15		11		165X00799A
	37		69.8						165X00809A
	50		67.41	19	14.5				165X00819A

## D-SUB HOODS AND ACCESSORIES

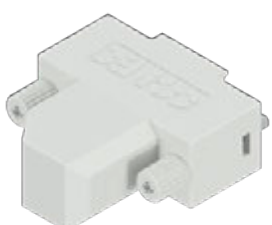
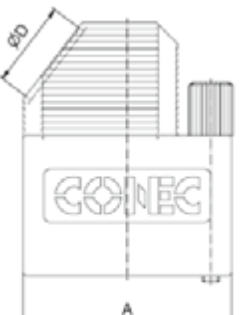
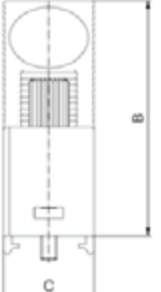
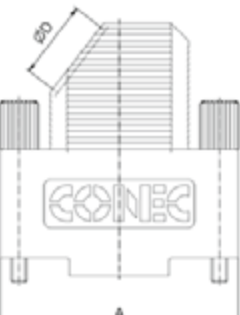
### D-SUB Plastic Hoods, shielded Side cable entry

Attenuation factor at 10 MHz > 60dB



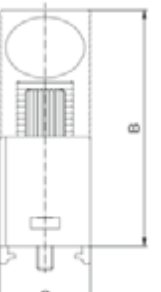
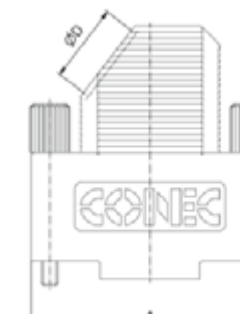
Plastic grey, jack screws with plastic head 4-40 UNC

No. of poles  
Number of straight cable  
entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File

Part No.

   	09			31.3			8	E202784	165X16119X
	15			39.62			9		165X16129X
	25 /	1	53.52	39.15	15		11		165X16139X
	37		69.8						165X16149X
	50		67.41	19	14.5				165X16159X


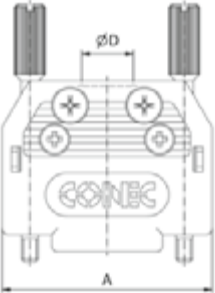
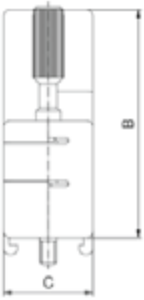
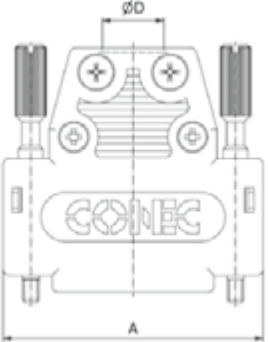
Plastic grey, jack screws 4-40 UNC

   	09			31.3			8	E202784	165X16169X
	15			39.62			9		165X16179X
	25 /	1	53.52	39.15	15		11		165X16189X
	37		69.8						165X16199X
	50		67.41	19	14.5				165X16209X


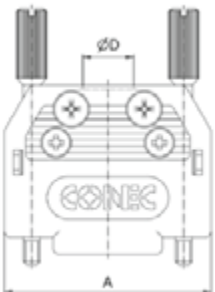
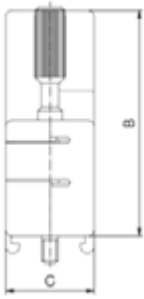
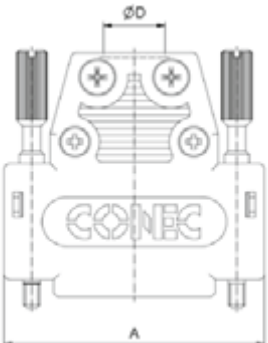
## D-SUB HOODS AND ACCESSORIES

### D-SUB Plastic Hoodss, two part Straight cable entry

Plastic black, 4-40 UNC jack screws

		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
   	09			34	25		8.5	E202784	165X10139X	
	15			42.3		14.5	10		165X10149X	
	25	1	/	56	37		10.5		165X10159X	
	37			72.5					165X10169X	
	50			67	49.1	19.8	14		165X10179X	

Plastic metallized, 4-40 UNC jack screws

   	09			34	25		8.5	E202784	165X10909X
	15			42.3		14.5	10		165X10919X
	25	1	/	56	37		10.5		165X10929X
	37			72.5					165X10939X
	50			67	49.1	19.8	14		165X10949X


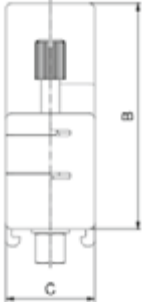
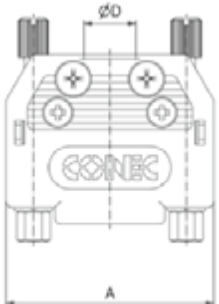
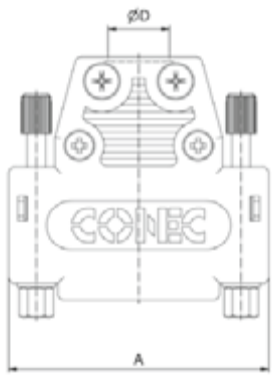
Integrated cable clamping  
On request:  
• M3 thread



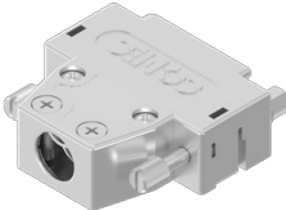
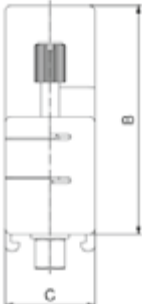
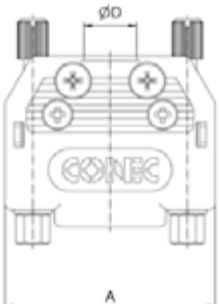
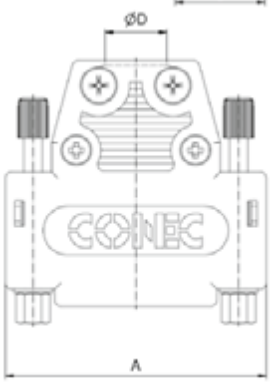
## D-SUB HOODS AND ACCESSORIES

### D-SUB Plastic Hoods, two part Straight cable entry, Cable-to-cable connection

Plastic black, 4-40 UNC jack screws 4-40 UNC hex bolt

								No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
								09			34	25		8.5	E202784	165X10239X
								15			42.3		10			165X10249X
								25	1	/	56	37	14.5			165X10259X
								37			72.5		10.5			165X10269X
								50			67	49.1	19.8	14		165X10279X

Plastic metallized, 4-40 UNC jack screws 4-40 UNC hex bolt

								No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
								09			34	25		8.5	E202784	165X11009X
								15			42.3		10			165X11019X
								25	1	/	56	37	14.5			165X11029X
								37			72.5		10.5			165X11039X
								50			67	49.1	19.8	14		165X11049X

Integrated cable clamping  
On request:  
• M3 thread

**D-SUB HOODS AND ACCESSORIES**  
Suitable for Combination D-SUB Connectors


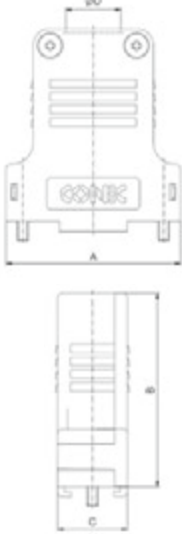
**D-SUB Plastic Hoods, large internal space**  
Straight cable entry

Large internal space for crimp, high power and coaxial contacts  
On request:  
• M3 thread


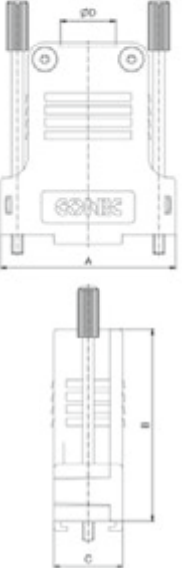
Plastic black, 4-40 UNC short screw

No. of poles  
Number of straight cable entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File


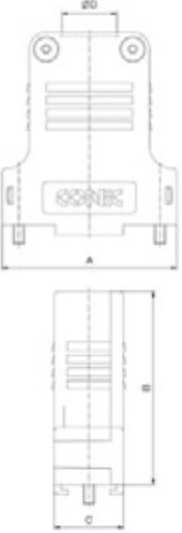
Part No.

		09	1	/	32.9	39.5	11	E202784	165X13369X	
		15			41.2	45.5			16.3	165X13379X
		25			54.9	52.5			12	165X13389X
		37			71.4	55.5			18.7	165X13399X
		50			69	55			19.5	14

Plastic black, 4-40 UNC jack screws

		09	1	/	32.9	39.5	11	E202784	165X03309A	
		15			41.2	45.5			16.3	165X03319A
		25			54.9	52.5			12	165X03329A
		37			71.4	55.5			18.7	165X03339A
		50			69	55			19.5	14

Plastic metallized, 4-40 UNC short screws

		09	1	/	32.9	39.5	11	E202784	165X13469X	
		15			41.2	45.5			16.3	165X13479X
		25			54.9	52.5			12	165X13489X
		37			71.4	55.5			18.7	165X13499X
		50			69	55			19.5	14

**D-SUB HOODS AND ACCESSORIES**  
 Suitable for Combination D-SUB Connectors

**D-SUB Plastic Hoods, large internal space**

Cable grommet for 9 - 50 pos. hood

No. of poles  
 Measure A [mm]  
 Measure B [mm]  
 Measure C [mm]  
 Measure D [mm]

Part No.





09/15	5	24.5	11.2	11.2	795-907600
25/37	7	27.5	12.2	15	795-907700
50	9.3	29.2	15	20	795-907800

**D-SUB HOODS AND ACCESSORIES**  
Suitable for Combination D-SUB Connectors


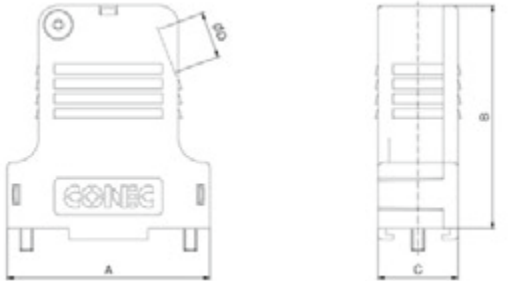
**D-SUB Plastic Hoods, large internal space**  
Side cable entry

Plastic black, 4-40 UNC short screws

 		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
09					32.9	39.5		8.6	E202784	165X13419X
15					41.2	45.5	16.4	9.4		165X13429X
25	/	1		54.9	52.5		13	15		165X13439X
37				71.4		18.8		15		165X13449X
50				69	55	19.6	14.9			165X13459X

Large internal space for crimp, high power and coaxial contacts  
On request:  
• M3 thread



Plastic metallized, 4-40 UNC short screws

 		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
09					32.9	39.5		8.6	E202784	165X13519X
15					41.2	45.5	16.4	9.4		165X13529X
25	/	1		54.9	52.5		13	15		165X13539X
37				71.4		18.8		15		165X13549X
50				69	55	19.6	14.9			165X13559X

**D-SUB HOODS AND ACCESSORIES**  
Suitable for Combination D-SUB Connectors

**D-SUB Plastic Hoods, large internal space**  
Side cable entry

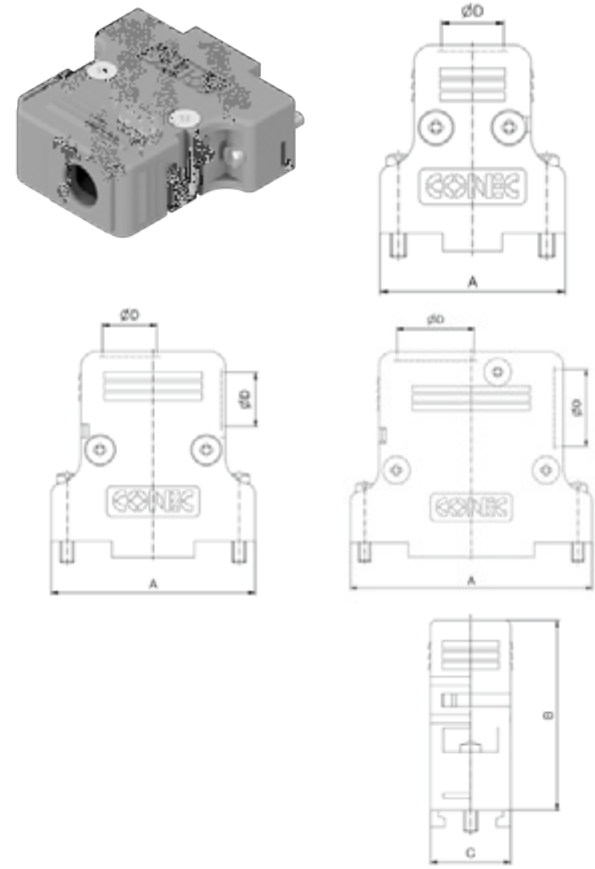
Cable grommet for 9 - 50 pos. hood

 		No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Part No.
09/15	5		24.5	11.2	11.2	795-907600	
25/37	7		27.5	12.2	15	795-907700	
50	9.3		29.2	15	20	795-907800	

## D-SUB HOODS AND ACCESSORIES

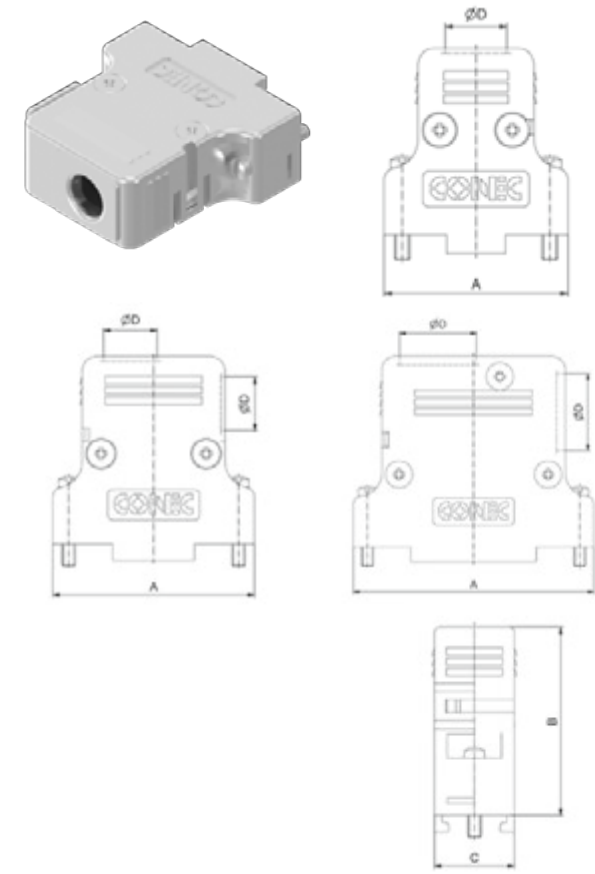
### D-SUB Plastic Hoods, fixed screws Variable cable entries

Plastic grey, 4-40 UNC short screws



No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
09	/		31.2	31.8				165X11869X
15			39.5	37		8		165X11879X
25	1		53.2		15.6		E202784	165X11889X
37		1	69.7	42.2		10		165X11899X
50			67.3	18.5	12.5			165X11909X

Plastic metallized, 4-40 UNC short screws



09	/		31.2	31.8				165X11919X
15			39.5	37		8		165X11929X
25	1		53.2		15.6		E202784	165X11939X
37		1	69.7	42.2		10		165X11949X
50			67.3	18.5	12.5			165X11959X

Integrated cable clamping

## D-SUB HOODS AND ACCESSORIES


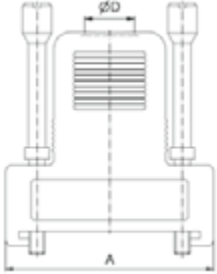
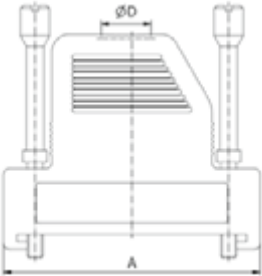
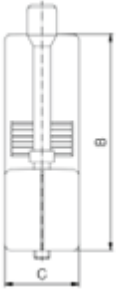
### D-SUB Plastic Hoods, low profile Straight cable entry

Space-saving, side-by-side mounting  
Packaging: in pack units as a single package

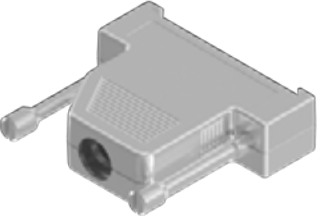
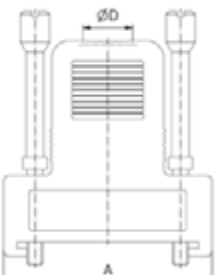
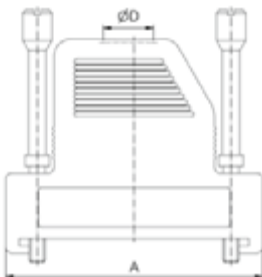
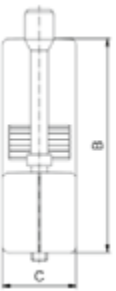
Plastic black, 4-40 UNC jack screws

No. of poles  
Number of straight cable  
entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File

Part No.

		09		35.8	37					165X16219X	
		15		44.1	38		8			165X16229X	
		25	1	/	57.9		12.6		E202784		165X16239X
		37			74.3	41		9			165X16249X
											

Plastic metallized, 4-40 UNC jack screws

		09		35.8	37					165X16299X	
		15		44.1	38		8			165X16309X	
		25	1	/	57.9		12.6		E202784		165X16319X
		37			74.3	41		9			165X16329X
											

## D-SUB HOODS AND ACCESSORIES


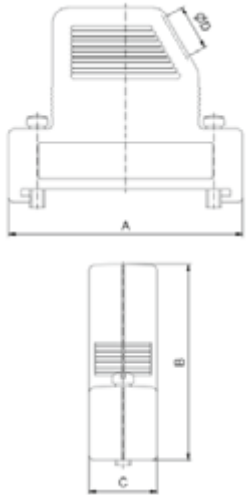
### D-SUB Plastic Hoods, low profile Side cable entry

Space-saving, side-by-side mounting  
Packaging: in pack units as a single package

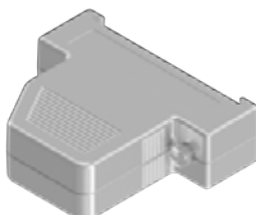
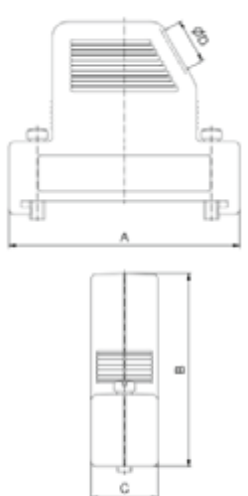
Plastic black, 4-40 UNC short screws

No. of poles  
Number of straight cable  
entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File

Part No.

		09			35.8	37						165X16379X
		15			44.1	38			8			165X16389X
		25	/	1	57.9		12.6			E202784		165X16399X
		37			74.3	41			9			165X16409X

Plastic metallized, 4-40 UNC short screws


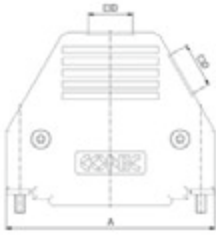
		09			35.8	37						165X16459X
		15			44.1	38			8			165X16469X
		25	/	1	57.9		12.6			E202784		165X16479X
		37			74.3	41			9			165X16489X

## D-SUB HOODS AND ACCESSORIES


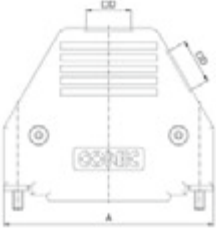
### D-SUB Plastic Hoods, integrated strain relief Straight and side cable entry

Plastic black, 4-40 UNC short screws

Entries not in use are blanked off with blanking plugs

No. of poles		Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
09	15								
		1	1	32	36.7	16.5	6.3	E202784	165X11239X
				40	38.2	16.5	8	E202784	165X11249X
				54.2	42.2	16.5	10.5	E202784	165X11259X
				70.6	47.2	16.5	11.5	E202784	165X11269X
				68.2	20.6	13.7	13.7	E202784	165X16539X

Plastic black, slide lock version including spring

No. of poles		Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
09	15								
		1	1	32	36.7	16.5	6.3	E202784	165X11279X
				40	38.2	16.5	8	E202784	165X11289X
				54.2	42.2	16.5	10.5	E202784	165X11299X
				70.6	47.2	16.5	11.5	E202784	165X11309X
				68.2	20.6	13.7	13.7	E202784	165X16549X


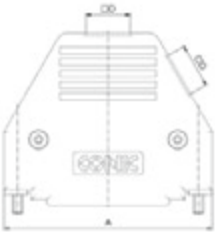



## D-SUB HOODS AND ACCESSORIES


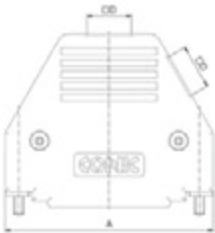
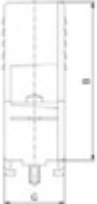
### D-SUB Plastic Hoods, integrated strain relief Straight and side cable entry

Entries not in use are blanked off with blanking plugs

Plastic metallized, 4-40 UNC short screws

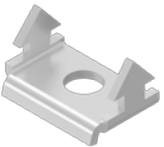

  	No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
	09				32	36.7		6.3	E202784
15				40	38.2		8	165X11329X	
25	1	1		54.2	42.2	16.5	10.5	165X11339X	
37				70.6			11.5	165X11349X	
50				68.2	47.2	20.6	13.7	165X16559X	

Plastic metallized, slide lock version including spring

  	No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
	09				32	36.7		6.3	E202784
15				40	38.2		8	165X11369X	
25	1	1		54.2	42.2	16.5	10.5	165X11379X	
37				70.6			11.5	165X11389X	
50				68.2	47.2	20.6	13.7	165X16569X	

Locking hooks for 9-50 pos. hood

No. of poles

 	No. of poles	Part No.
	09-37	165X10119X
50	165X16609X	

## D-SUB HOODS AND ACCESSORIES

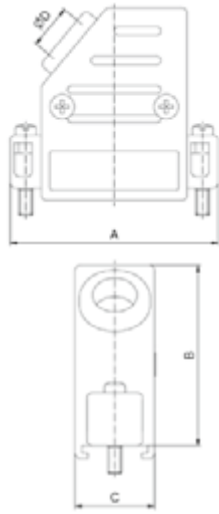
### D-SUB Plastic Hoods Side cable entry

Packaging: in pack units as a single package

Plastic black, 4-40 UNC short screws

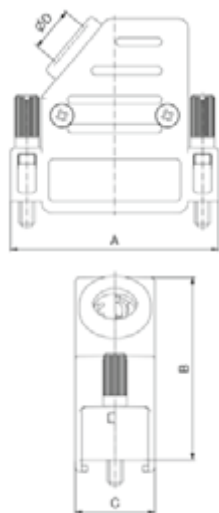
No. of poles  
Number of straight cable  
entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File

Part No.



09			31.5	37		8.5	E202784	600X54009X
15			40		15.2			600X54015X
25	/	1	53.5			11		600X54025X
37			70	41				600X54037X
50			67.8		18.2	12		600X54050X

Plastic black, 4-40 UNC jack screws



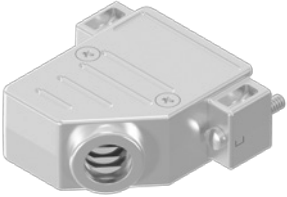
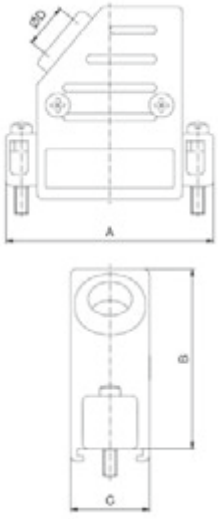
09			31.5	37		8.5	E202784	600X55009X
15			40		15.2			600X55015X
25	/	1	53.5			11		600X55025X
37			70	41				600X55037X
50			67.8		18.2	12		600X55050X

## D-SUB HOODS AND ACCESSORIES


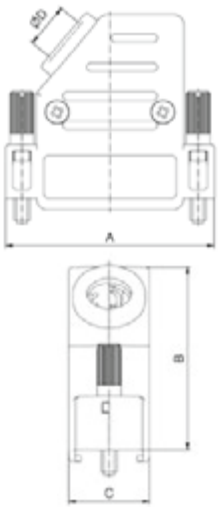
### D-SUB Plastic Hoods Side cable entry

Packaging: in pack units as a single package

Plastic metallized, 4-40 UNC short screws

		No. of poles	Number of straight cable entries		Number of side cable entries		Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
		09					31.5				E202784	600X56009X
		15					40	37		8.5		600X56015X
		25	/	1			53.5		15.2			600X56025X
		37					70	41		11		600X56037X
		50					67.8		18.2	12		600X56050X

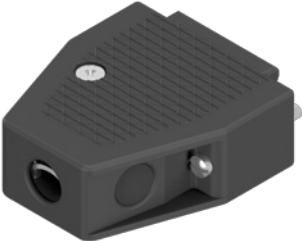
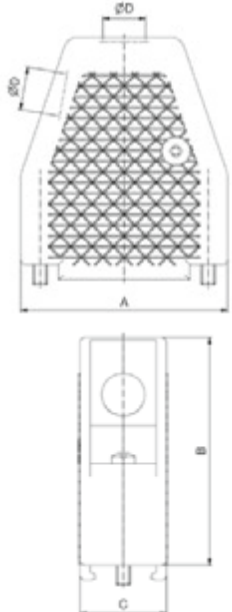
Plastic metallized, 4-40 UNC jack screws

		No. of poles	Number of straight cable entries		Number of side cable entries		Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
		09					31.5				E202784	600X57009X
		15					40	37		8.5		600X57015X
		25	/	1			53.5		15.2			600X57025X
		37					70	41		11		600X57037X
		50					67.8		18.2	12		600X57050X

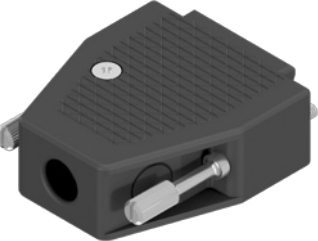
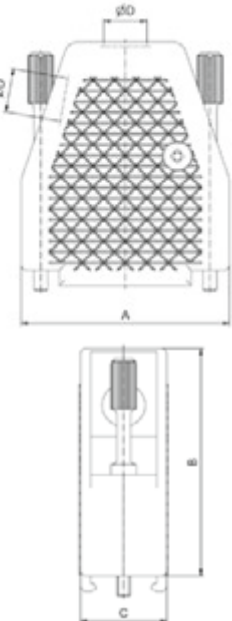
## D-SUB HOODS AND ACCESSORIES

### D-SUB Plastic Hoods Straight and side cable entry

Plastic black, 4-40 UNC short screws

		No. of poles								Part No.	
		Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File			
		09		33	45.5		7.5	E202784		165X13019X	
		15		41			8.5			165X13029X	
		25	1	1	55	47	17		10.5		165X13039X
		37			71.3	51			11		165X13049X
		50			69	50	20		12.5		165X13059X

Plastic black, 4-40 UNC jack screws

		09		33	45.5		7.5	E202784		165X13079X	
		15		41			8.5			165X13089X	
		25	1	1	55	47	17		10.5		165X13099X
		37			71.3	51			11		165X13109X
		50			69	50	20		12.5		165X13119X


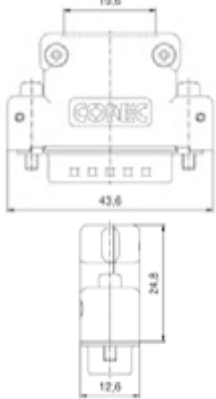
## D-SUB HOODS AND ACCESSORIES

### D-SUB Plastic Hoods With integrated crimp connector 7W2


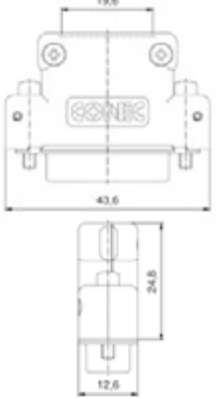
This hood can only be used in conjunction with the special connector.

- Integrated strain relief
- On request:
  - Available with bridged single contacts


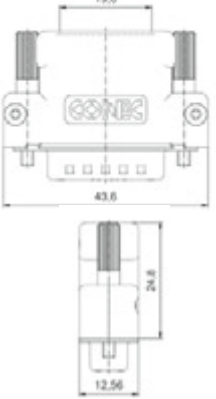
Plastic black, short screws Philips

	No. of poles	Number of straight cable entries	Number of side cable entries	Part No. Socket contact	Part No. Plug contact
 	7W2	1	/	13-000220	13-002780


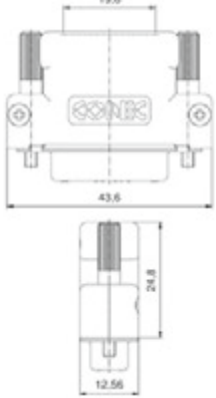
Plastic black, short screws Inbus

 	7W2	1	/	13-000210	13-002770
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Plastic black, jack screws Philips

 	7W2	1	/	13-000380	13-002760
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Plastic black, jack screws Inbus


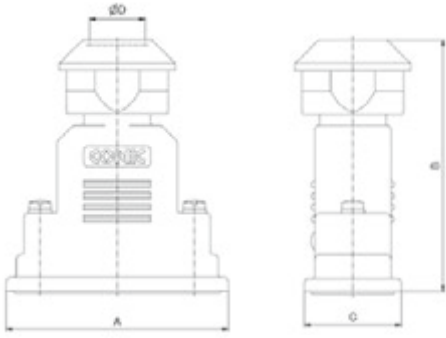
 	7W2	1	/	13-000370	13-002750
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## D-SUB HOODS AND ACCESSORIES


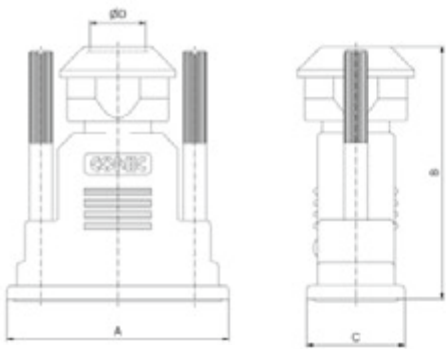
### IP67 D-SUB Plastic Hoods Straight cable entry

Water resistant hood for Standard and Combination D-SUB connectors  
For high power and coaxial contacts  
Packaging: in pack units as a single package

Plastic black, 4-40 UNC short screws stainless steel

	No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Part No.
 	09			40	54.3		7 - 9	15-004710
	15			48	54.6	21	9 - 11	15-004720
	25	1	/	62	67.7		10 - 12	15-004730
	37			78	77.2	25.2	14 - 16	15-004740
	50			75.6	23.8			15-004750

Plastic black, 4-40 UNC jack screws stainless steel

 	15			40	54.3		7 - 9	15-004670
	25			62	67.7	21	10 - 12	15-004680
	37	1	/	78	77.2	25.2	14 - 16	15-004690
	50			75.6	23.8			15-004700

## D-SUB HOODS AND ACCESSORIES

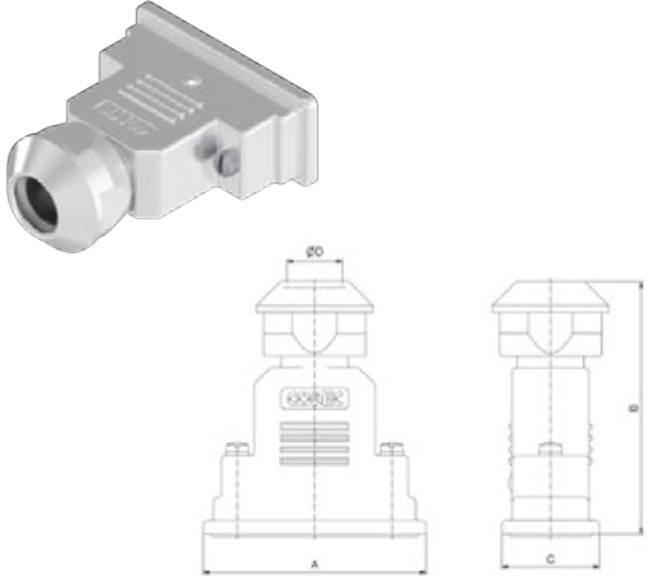
### IP67 D-SUB Plastic Hoods Straight cable entry

Water resistant hood for Standard and Combination D-SUB connectors  
For high power and coaxial contacts  
Packaging: in pack units as a single package

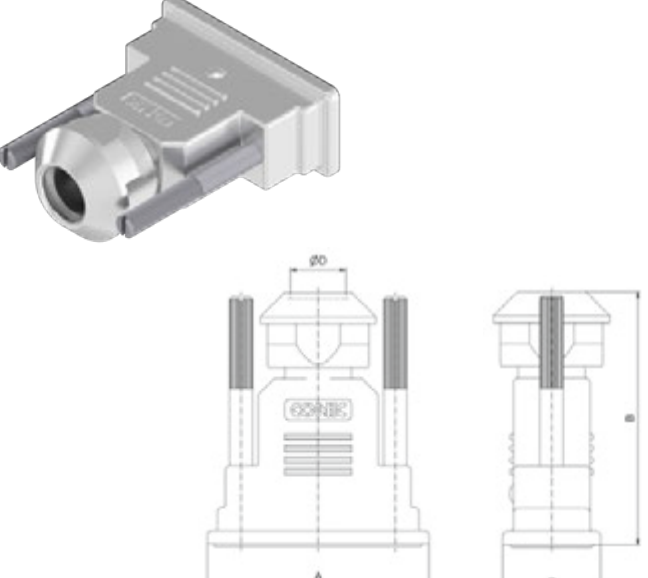
Plastic metallized, 4-40 UNC short screws stainless steel

No. of poles  
Number of straight cable entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]

Part No.

	09	1	/	40	54.3	21	7 - 9	15-004810
	15			48	54.6		9 - 11	15-004820
	25			62	67.7		10 - 12	15-004830
	37			78	77.2		14 - 16	15-004840
	50			75.6	23.8			15-004850

Plastic metallized, 4-40 UNC jack screws stainless steel

	15	1	/	40	54.3	21	7 - 9	15-004770
	25			62	67.7		10 - 12	15-004780
	37			78	77.2		14 - 16	15-004790
	50			75.6	23.8			15-004800

## D-SUB HOODS AND ACCESSORIES

### IP67 D-SUB Plastic Hoods, large internal space Straight cable entry

Plastic black, 4-40 UNC jack screws

No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
09			40.76	77		5 - 10	E202784	165X14819X
15			49.06	79				165X14829X
25	1	/	62.8	87.5	22	6 - 12		165X14839X
37			78.86	99		9 - 16		165X14849X
50			76.46	107	24.8	13 - 20		165X14859X

Plastic black, 4-40 UNC short screws

09			40.76	77		5 - 10	E202784	165X14869X
15			49.06	79				165X14879X
25	1	/	62.8	87.5	22	6 - 12		165X14889X
37			78.86	99		9 - 16		165X14899X
50			76.46	107	24.8	13 - 20		165X14909X

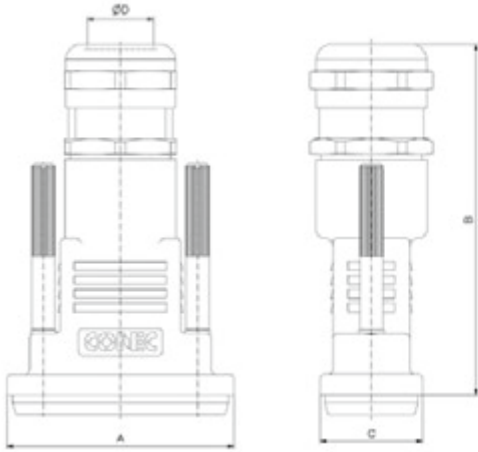
Water resistant hood for Standard and Combination D-SUB connectors  
Large internal space for crimp, high power and coaxial contacts  
Accessories: Protection cap and Outside sealing made from TPE  
On request:  
• M3 thread



## D-SUB HOODS AND ACCESSORIES

### IP67 D-SUB Plastic Hoods, large internal space Straight cable entry

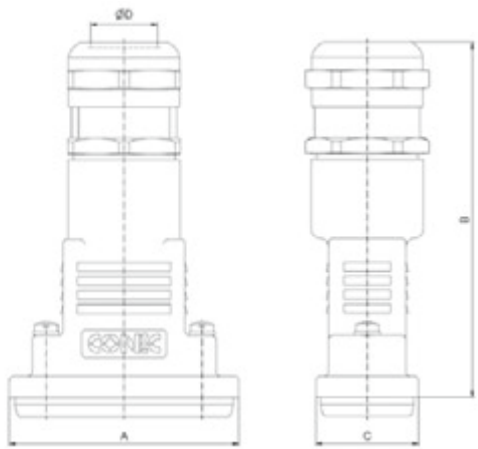
Plastic metallized, 4-40 UNC jack screws



No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	
09			40.76	77		5 - 10		165X15019X
15			49.06	79				165X15029X
25	1	/	62.8	87.5	22	7 - 12	E202784	165X15039X
37			78.86	99		9 - 16		165X15049X
50			76.46	107	24.8	13 - 20		165X15059X

Water resistant hood for Standard and Combination D-SUB connectors  
Large internal space for crimp, high power and coaxial contacts  
Accessories: Protection cap and Outside sealing made from TPE  
On request:  
• M3 thread

Plastic metallized, 4-40 UNC short screws

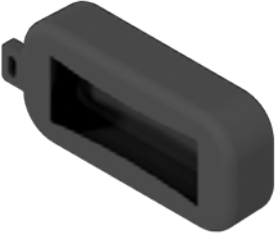
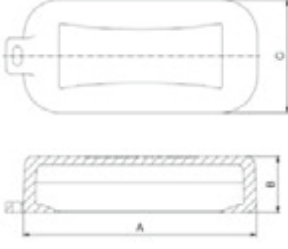


09			40.76	77		5 - 10		165X15069X
15			49.06	79				165X15079X
25	1	/	62.8	87.5	22	7 - 12	E202784	165X15089X
37			78.86	99		9 - 16		165X15099X
50			76.46	107	24.8	13 - 20		165X15109X


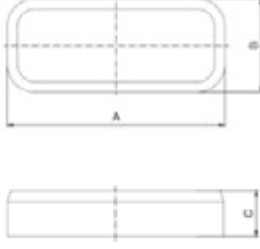
## D-SUB HOODS AND ACCESSORIES

### IP67 D-SUB Plastic Hoods, large internal space Straight cable entry

#### Protection cap

		No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	UL-File	Part No.
 	09	44.56	12.6	25.6	E202784	165X17509X	
	15	52.86				165X17519X	
	25	66.6				165X17529X	
	37	82.66				165X17539X	
	50	80.26				28.4	165X17549X


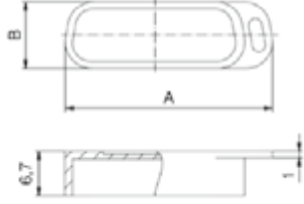
#### Outside sealing

		No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	UL-File	Part No.
 	09	38.36	20	9.9	E202784	795-305420	
	15	46.66				795-305490	
	25	60.4				795-305580	
	37	76.86				795-305640	
	50	74.5				22.8	795-305710


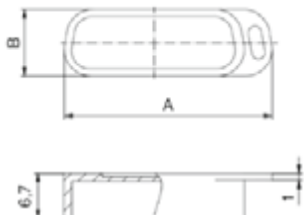
## D-SUB HOODS AND ACCESSORIES

### D-SUB protection caps Plastic design, for socket connector

#### Plastic black

		No. of poles	Measure A [mm]	Measure B [mm]	Part No.
 	09	22.9	10	160X10449X	
	15	31.4		160X10459X	
	25	44.7		160X10469X	
	37	61.2		160X10479X	
	50	58.8	12.8	160X10959X	

#### Plastic metallized

		No. of poles	Measure A [mm]	Measure B [mm]	Part No.
 	09	22.9	11	600X518009X	
	15	31.4		600X518015X	
	25	44.7		600X518025X	
	37	61.2		600X518037X	
	50	58.8	13.7	600X518050X	

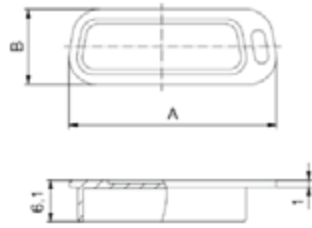
Dust cap protecting connector mounting area  
Temperature range: -35°C... +85°C

## D-SUB HOODS AND ACCESSORIES

### D-SUB protection caps Plastic design, for plug connector

Dust cap protecting connector mounting area  
Temperature range: -35°C... +85°C

#### Plastic black



No. of poles

Measure A [mm]

Measure B [mm]

Part No.

09

22.5

10

160X10409X

15

30.65

10

160X10419X

25

44.4

10

160X10429X

37

60.75

10

160X10439X

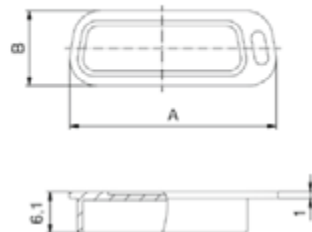
50

58.15

12.8

160X10969X

#### Plastic metallized



09

22.5

11

600X517009X

15

30.65

11

600X517015X

25

44.4

11

600X517025X

37

60.75

11

600X517037X

50

58.15

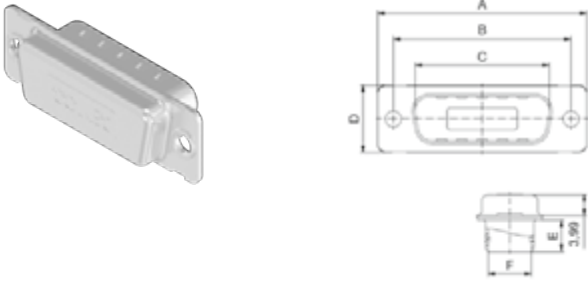
13.7

600X517050X

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap  
Metall design, shielded, for socket connector

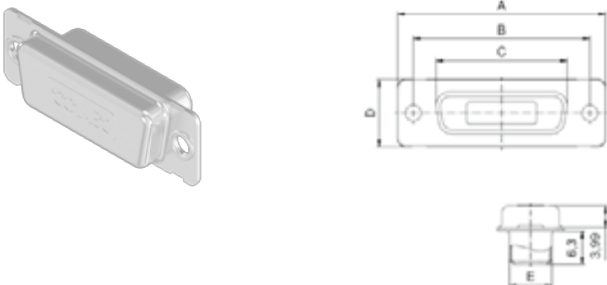
Through-hole Ø 3 mm

	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Shielded cap protecting against EMI / RFI Shell: steel tin plated	
								Part No.	
	09	31.19	25	16.79	12.93	6.12	8.23	165X12969X	
	15	39.52	33.3	25.12				165X12979X	
	25	53.42	47.04	38.84				165X12989X	
	37	69.7	63.5	55.3				5.99	165X12999X
	50	67.31	61.1	52.68				15.75	10.95

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap  
Metall design, shielded, for plug connector

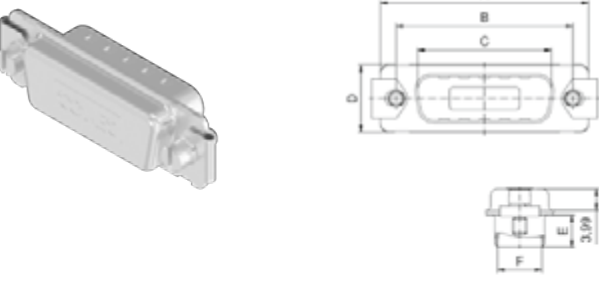
Through-hole Ø 3 mm

	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Shielded cap protecting against EMI / RFI Shell: steel tin plated
							Part No.
	09	31.19	25	16.46	12.93	8.02	165X13129X
	15	39.52	33.3	24.79			165X13139X
	25	53.42	47.04	38.5			165X13149X
	37	69.7	63.5	54.96			165X13159X
	50	67.31	61.1	52.55			15.75

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap  
Metall design, shielded, for socket connector


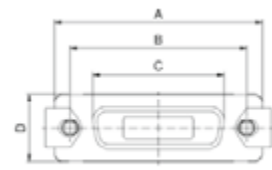

4-40 UNC screws and clip

	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Shielded cap protecting against EMI / RFI Shell: steel tin plated	
								Part No.	
	09	31.19	25	16.79	12.93	6.12	8.23	165X16719X	
	15	39.52	33.3	25.12				165X16729X	
	25	53.42	47.04	38.84				165X16739X	
	37	69.7	63.5	55.3				5.99	165X16749X
	50	67.31	61.1	52.68				15.75	10.95

## D-SUB HOODS AND ACCESSORIES

### D-SUB shielded cap Metall design, shielded, for plug connector

4-40 UNC screws and clip


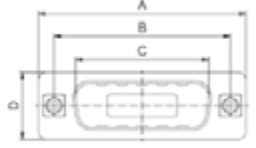
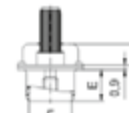
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
  	09	31.19	25	16.46	12.93	8.02	165X16769X
	15	39.52	33.3	24.79			165X16779X
	25	53.42	47.04	38.5			165X16789X
	37	69.7	63.5	54.96			165X16799X
	50	67.31	61.1	52.55			15.75

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated

## D-SUB HOODS AND ACCESSORIES

### D-SUB shielded cap Metall design, shielded, for socket connector

4-40 UNC jack screws


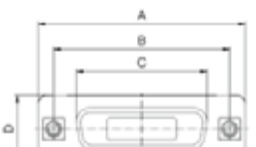
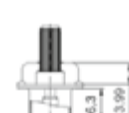
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Part No.	
  	09	31.19	25	16.79	12.93	6.12	8.23	165X16909X	
	15	39.52	33.3	25.12				165X16919X	
	25	53.42	47.04	38.84				165X16929X	
	37	69.7	63.5	55.3				5.99	165X16939X
	50	67.31	61.1	52.68				15.75	10.95

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

### D-SUB shielded cap Metall design, shielded, for plug connector

4-40 UNC jack screws

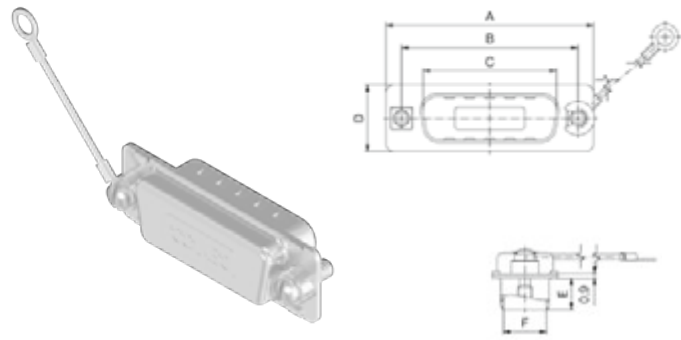
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
  	09	31.19	25	16.79	12.93	8.02	165X17009X
	15	39.52	33.3	25.12			165X17019X
	25	53.42	47.04	38.84			165X17029X
	37	69.7	63.5	55.3			165X17039X
	50	67.31	61.1	52.68			15.75

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

### D-SUB shielded cap with lanyard Metall design, shielded, for socket connector

4-40 UNC screws



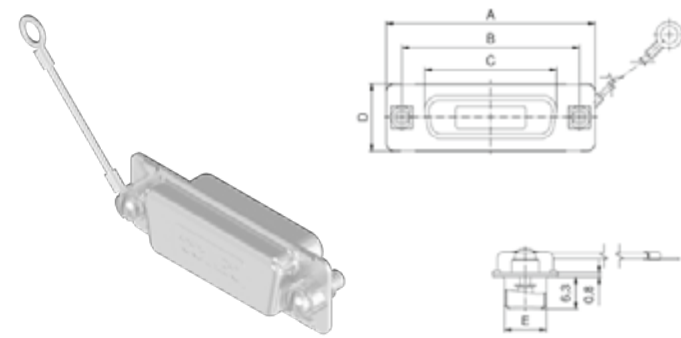
No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Part No.	
09	31.19	25	16.46	12.6	6.12	8.26	16-001050	
15	39.52	33.3	24.79				16-001060	
25	53.42	47.04	38.5				16-001070	
37	69.7	63.5	54.96				5.99	16-001080
50	67	61.11	52.5				15.38	6.12

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

### D-SUB shielded cap with lanyard Metall design, shielded, for plug connector

4-40 UNC screws



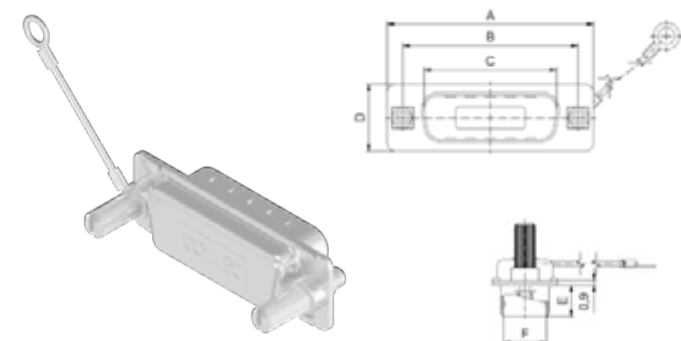
No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
09	31.19	25	16.79	12.6	8	16-001150
15	39.52	33.3	25.12			16-001160
25	53.42	47.04	38.84			16-001170
37	69.7	63.5	55.3			16-001180
50	67	61.11	52.81			15.38

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

### D-SUB shielded cap with lanyard Metall design, shielded, for socket connector

4-40 UNC steel jack screws



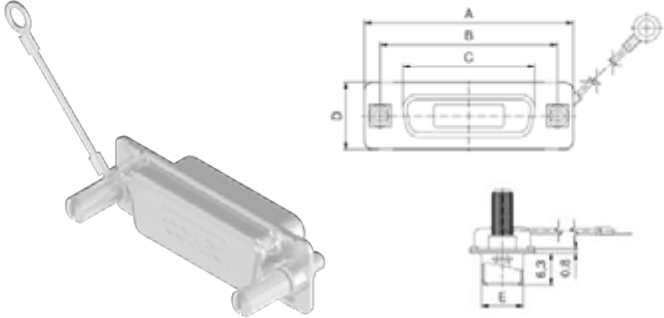
No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Part No.	
09	31.19	25	16.46	12.6	6.12	8.26	16-000840	
15	39.52	33.3	24.79				16-000850	
25	53.42	47.04	38.5				16-000860	
37	69.7	63.5	54.96				5.99	16-000870
50	67	61.11	52.5				15.38	6.12

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap with lanyard  
Metall design, shielded, for plug connector

4-40 UNC steel jack screws

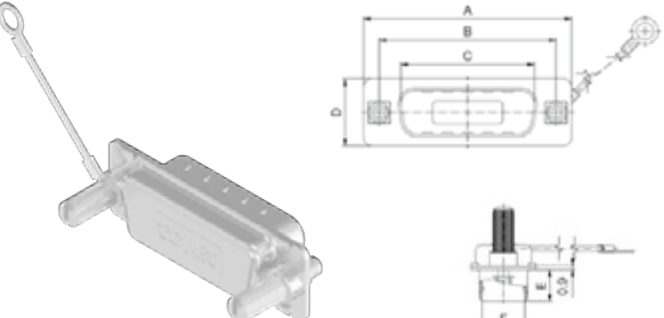
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
	09	31.19	25	16.79	12.6	8	16-000950
	15	39.52	33.3	25.12			16-000960
	25	53.42	47.04	38.84			16-000970
	37	69.7	63.5	55.3			16-000980
	50	67	61.11	52.81			15.38

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap with lanyard  
Metall design, shielded, for socket connector

4-40 UNC stainless steel jack screws

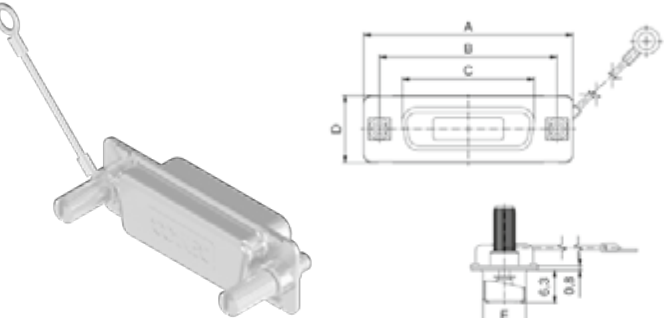
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Part No.	
	09	31.19	25	16.46	12.6	6.12	8.26	16-000280	
	15	39.52	33.3	24.79				16-000290	
	25	53.42	47.04	38.5				16-000300	
	37	69.7	63.5	54.96				5.99	16-000310
	50	67	61.11	52.5				15.38	6.12

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap with lanyard  
Metall design, shielded, for plug connector

4-40 UNC stainless steel jack screws

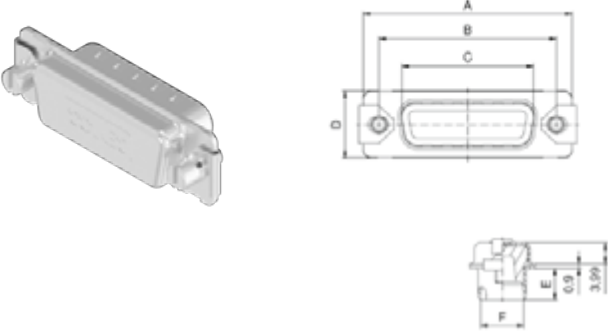
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
	09	31.19	25	16.79	12.6	8	16-000380
	15	39.52	33.3	25.12			16-000390
	25	53.42	47.04	38.84			16-000400
	37	69.7	63.5	55.3			16-000410
	50	67	61.11	52.81			15.38

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

IP67 D-SUB protection cap with gasket  
Metall design, shielded, for socket connector

4-40 UNC screws and clip

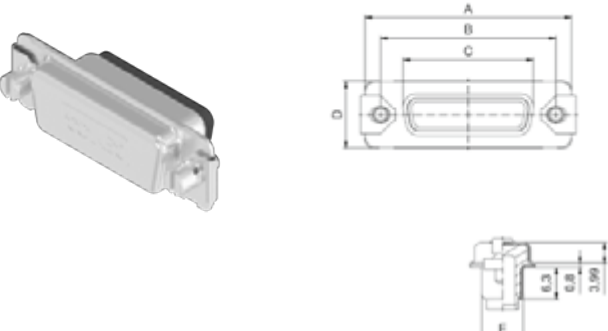
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Part No.
	09	31.19	25	16.79	12.93	6.12	8.23	165X14719X
	15	39.52	33.3	25.12				165X14729X
	25	53.42	47.04	38.84				165X14739X
	37	69.7	63.5	55.3	5.99	165X14749X		
	50	67.31	61.1	52.68	15.75	10.95	165X14759X	

IP67 Protection cap with gasket  
Protection against EMI / RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

IP67 D-SUB protection cap with gasket  
Metall design, shielded, for plug connector

4-40 UNC screws and clip

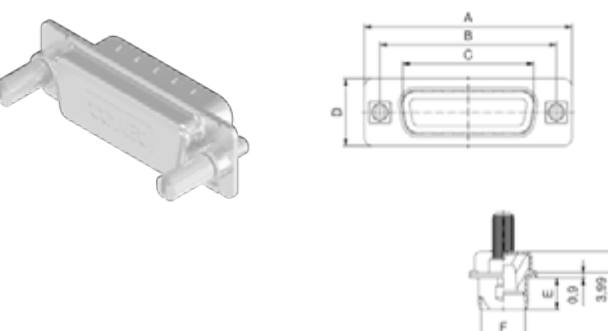
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
	09	31.19	25	16.46	12.93	8.02	165X14769X
	15	39.52	33.3	24.79			165X14779X
	25	53.42	47.04	38.5			165X14789X
	37	69.7	63.5	54.96	165X14799X		
	50	67.31	61.11	52.55	15.75	10.87	165X14809X

IP67 Protection cap with gasket  
Protection against EMI / RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

IP67 D-SUB protection cap with gasket  
Metall design, shielded, for socket connector

4-40 UNC jack screws

	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Part No.
	09	31.19	25	16.79	12.93	6.12	8.23	165X17109X
	15	39.52	33.3	25.12				165X17119X
	25	53.42	47.04	36.84				165X17129X
	37	69.7	63.5	55.3	5.99	165X17139X		
	50	67.31	61.1	52.68	15.75	10.95	165X17149X	


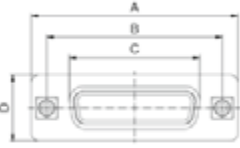
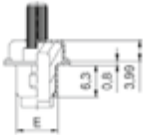
IP67 Protection cap with gasket  
Protection against EMI / RFI  
Shell: brass tin plated  
Jack screws: stainless steel  
On request:  
• M3 thread



## D-SUB HOODS AND ACCESSORIES

IP67 D-SUB protection cap with gasket  
Metall design, shielded, for plug connector

4-40 UNC jack screws


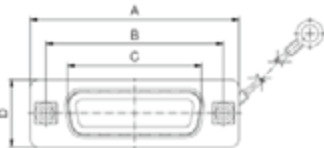
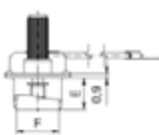
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
  	09	31.19	25	16.46	12.93	8.02	165X17209X
	15	39.52	33.3	24.79			165X17219X
	25	53.42	47.04	38.5			165X17229X
	37	69.7	63.5	54.96			165X17239X
	50	67.31	61.1	52.55			15.75

IP67 Protection cap with gasket  
Protection against EMI / RFI  
Shell: brass tin plated  
Jack screws: stainless steel  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

IP67 D-SUB protection cap with gasket and lanyard  
Metall design, shielded, for socket connector

4-40 UNC jack screws stainless steel


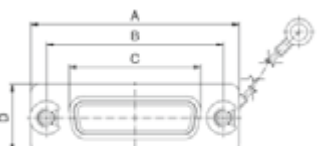
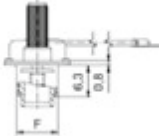
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Part No.	
  	09	31.19	25	16.46	12.6	6.12	8.26	15-000010	
	15	39.52	33.3	24.79				15-000020	
	25	53.42	47.04	38.5				15-000030	
	37	69.7	63.5	54.96				5.99	15-000040
	50	67	61.11	52.5				15.38	6.12

IP67 Protection cap with gasket  
Protection against EMI / RFI  
Shell: brass tin plated  
Lanyard: stainless steel  
Jack screws: stainless steel  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

IP67 D-SUB protection cap with gasket and lanyard  
Metall design, shielded, for plug connector

4-40 UNC jack screws stainless steel

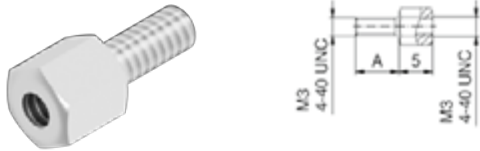
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
  	09	31.19	25	16.79	12.6	8	15-000110
	15	39.52	33.3	25.12			15-000120
	25	53.42	47.04	38.84			15-000130
	37	69.7	63.5	55.3			15-000140
	50	67	61.11	52.81			15.38

IP67 Protection cap with gasket  
Protection against EMI / RFI  
Shell: brass tin plated  
Lanyard: stainless steel  
Jack screws: stainless steel  
On request:  
• M3 thread


## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories


#### Single hex bolts packaging unit 200 pieces

	Length A [mm]	Internal thread	External thread	Part No.
	6.5	4-40 UNC	4-40 UNC	740-353770
	8.0			740-331370
	11.0			740-331570
	13.0			740-331870
	14.0			740-331670
	4.0	M3		740-354470
	7.0			740-320570
	8.0			740-342470
	13.0		M3	740-365270
	4.0	4-40 UNC		740-354370
	7.0			740-320170
	13.0			740-344970

#### Single hex bolts set packaging unit 100 pieces

	8.0	4-40 UNC	4-40 UNC	160X10359X
	14.0			160X10639X
	8.0	M3	M3	160X10529X

#### Screw locking set packaging unit 100 pieces

	8.0	4-40 UNC	4-40 UNC	160X10329X
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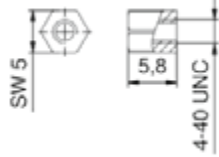
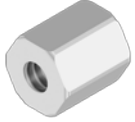
## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

Internal thread

Hex bolt nut .228" 5.8 mm

Part No.



4-40 UNC

160X10379X

Flat washer



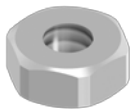
765-329670

Spring ring



765-329570

Nut



4-40 UNC

765-329770

M3

765-329870

## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

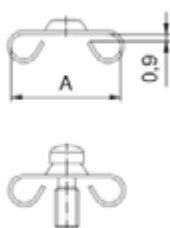
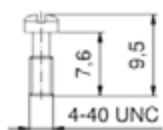
Set 4-40 UNC Screw locking with clamp

No. of poles

Material

Measure A [mm]

Part No.



09-37

steel

13.3

160X10259X

50

15.9

160X10659X

## D-SUB HOODS AND ACCESSORIES

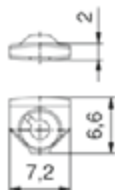
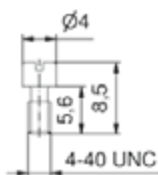
### D-SUB Hardware accessories

Set 4-40 UNC Screw locking with clamp

No. of poles

Material

Part No.

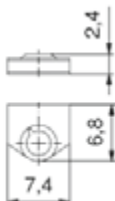
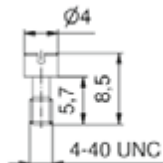


09-50

stainless steel

160X00470A

Set 4-40 UNC Screw locking with clamp



09-50

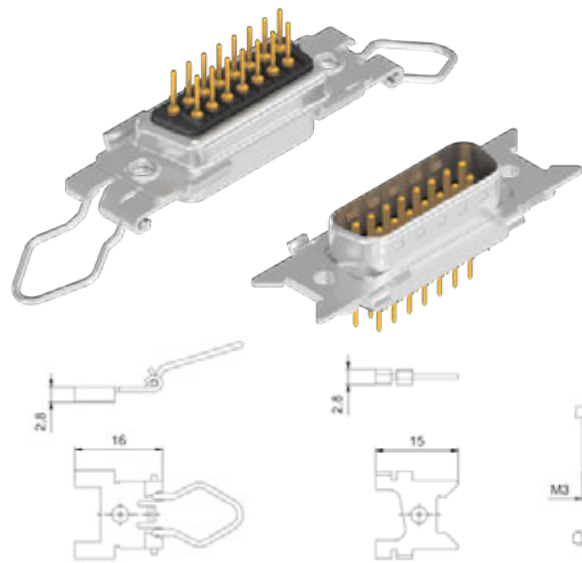
brass

16-505750

## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

#### Set spring locking



Assembly Example

No. of poles

Material

- Set spring locking:
- 2 spring clips
  - 2 wire clamp holders
  - 2 clamps
  - 4 M3 screws
  - 4 M3 nuts

Part No.

09-37

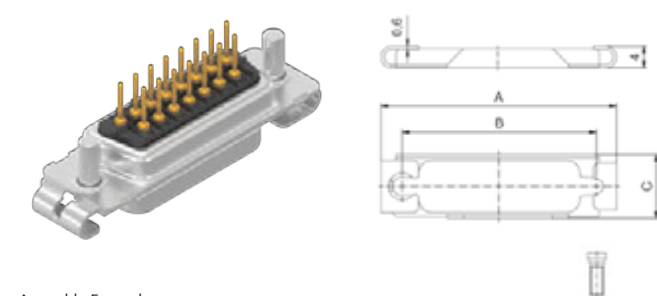
steel

160X10239X

## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

#### Set Slide lock Type 3



Assembly Example

No. of poles

Measure A [mm]

Measure B [mm]

Measure C [mm]

- Slide lock Type 3  
(for direct assembly to connector)
- 1 frame
  - 2 self threading screws for plastic and metal

Part No.

09

35

27.4

12

160X10159X

15

43.3

35.7

11.5

160X10169X

25

57

49.4

12

160X10179X

37

74.4

65.9

12

160X10189X

50

72

63.5

15

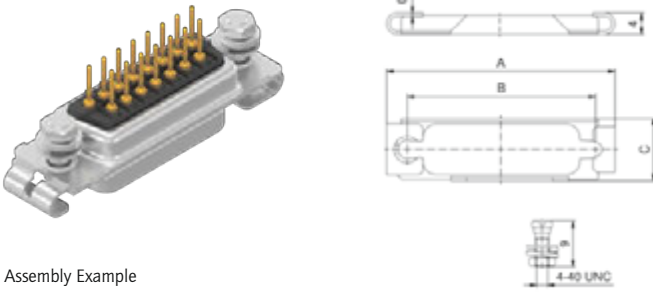
160X10199X

## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

#### Set Slide lock Type 4

- Slide lock Type 4 (for hood assembly)
- 1 frame
  - 2 4-40 UNC screws
  - 2 flat washers
  - 2 spring rings
  - 2 4-40 UNC nuts

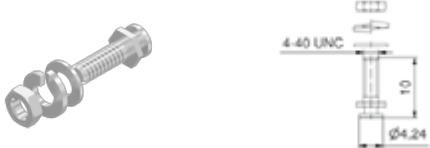
		No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Part No.
						Part No.
Assembly Example		09	35	27.4	12	160X10689X
		15	43.3	35.7	11.5	160X10699X
		25	57	49.4	12	160X10709X
		37	74.4	65.9		160X10719X
		50	72	63.5	15	160X10729X

## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

#### Set Holding bolt for slide lock type 3 + 4

- Holding bolt set:
- 2 hex bolts
  - 2 flat washers
  - 2 spring rings
  - 2 nuts

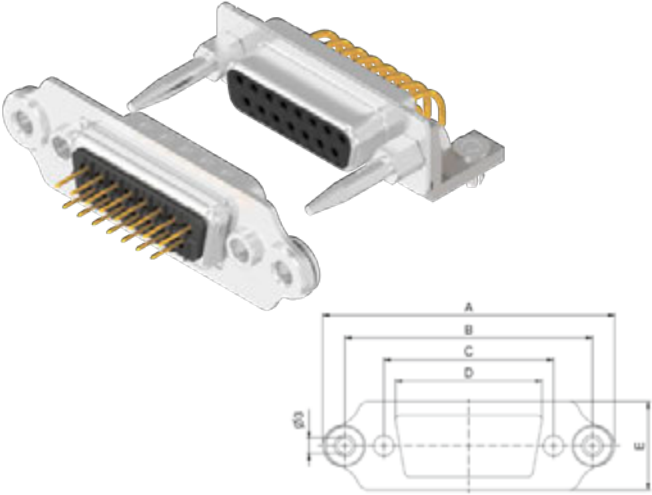
		No. of poles	Part No.
Assembly Example		09-50	160X10209X

## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

#### Blind mating frame

Blind mating - Plug-in system:  
Material: Steel nickel plated  
• Mounting for mating applications consist of frame and float mount  
• Frame is factory assembled


	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
 <p>Assembly Example</p>	09	49.02	40.28	24.99	20.2	17.2	160X10889X
	15	57.35	48.62	33.32	28.8		160X10899X
	25	71.25	62.51	47.04	42.5		160X10909X
	37	87.53	78.79	63.5	59.1		160X10919X
	50	85.14	76.4	61.11	56.3		20.04

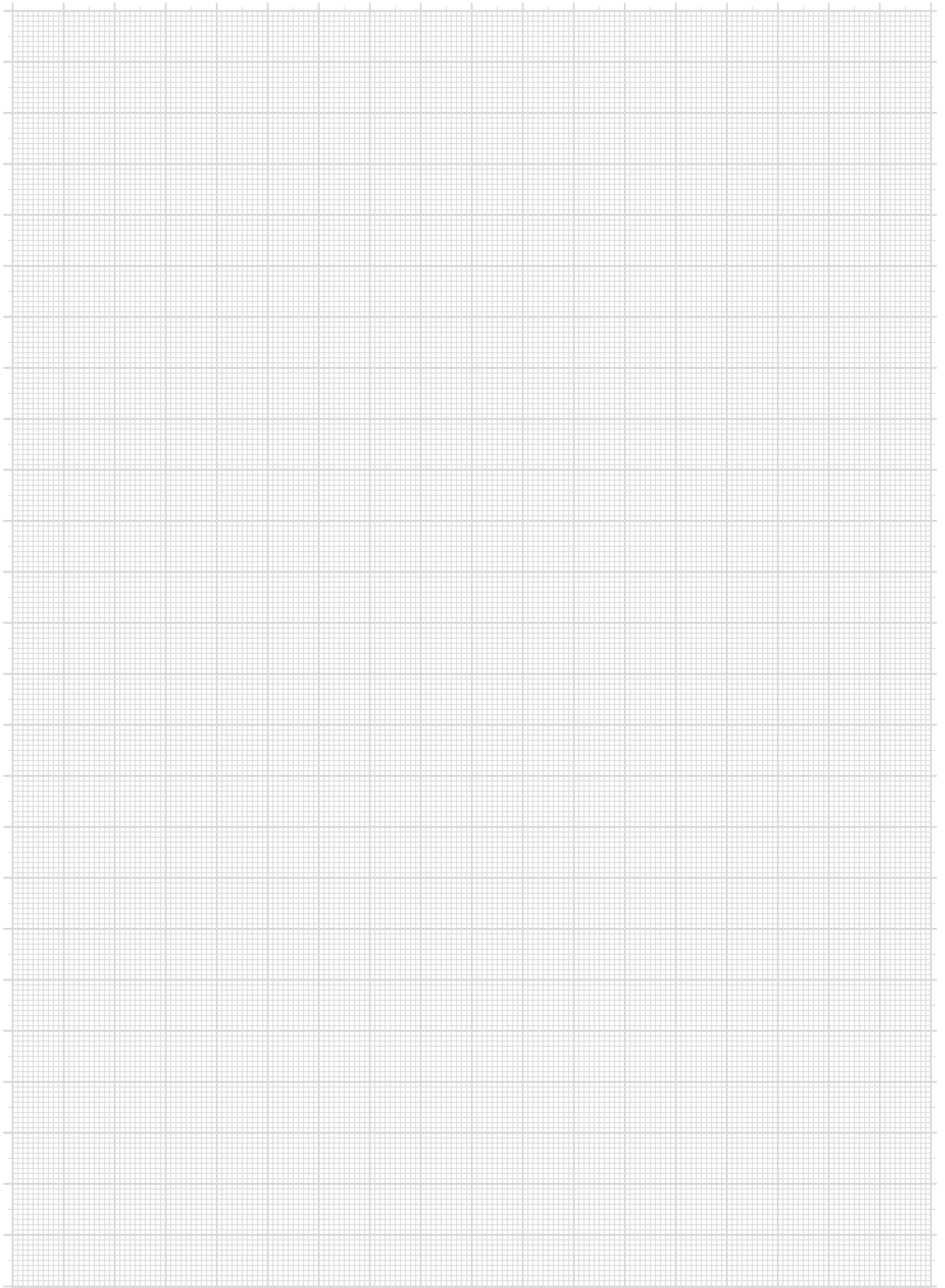
## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

#### Blind mating guide posts

Blind mating - Plug-in system guide pin  
Material: Steel nickel plated

	No. of poles	Part No.
	09-50	160X10949X





SECTION 6

# IP67 D-SUB CONNECTORS





## IP67 D-SUB CONNECTORS

### Part Number Creator

6 S T D 0 9 S A M 9 9 B 3 O X

#### Product Line

- 6 = Shell brass tin plated with die-cast frame
  - 4 = Shell brass tin plated with plastic frame or without frame
  - 8\* = Shell stainless steel with or without die-cast frame
  - 8\* = Shell stainless steel with plastic frame
- \*on request

#### Variations

- STD = D-SUB-Standard
- HDD = D-SUB-High Density

#### Position for STD

- 09 = 9-pos.
- 15 = 15-pos.
- 25 = 25-pos.
- 37 = 37-pos.
- 50 = 50-pos.

#### Position for HDD

- 15 = 15-pos.
- 26 = 26-pos.
- 44 = 44-pos.
- 62 = 62-pos.
- 78 = 78-pos.

#### Contact type

- P = Plug connector
- S = Socket connector
- A = Adapter

#### Quality class for contacts

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles
- C = Quality class 1 = 500 mating cycles

#### Termination

- M = Solder cup 10 A
- R = Solder pin, straight
- T = Solder pin, angled, .189"/ 4.80 mm
- U = Solder pin, angled, .189"/ 7.00 mm
- Z = Solder pin, angled, .189"/11.80 mm
- Y = Solder pin, angled, .189"/ 5.60 mm (high density design only)
- A = Adapter

#### Capacitance

- 99 = Without filter for STD and HDD

#### Mounting style

- A1 = Riveted for wire assembly shell without sealing frame
- B3 = 4-40 UNC threaded insert
- B5 = 4-40 UNC front spacer
- B7 = 4-40 UNC front spacer and rear mounting stud
- B9 = 4-40 UNC front spacer for adapter
- E2 = 4-40 UNC Threaded rear spacer with PCB clip, PCB 1.60 mm
- S2 = Metal bracket, 4-40 UNC threaded insert
- S4 = Metal bracket, 4-40 UNC threaded insert and PCB clip
- R2 = Metal bracket, 4-40 UNC threaded insert
- R4 = Metal bracket, 4-40 UNC threaded insert and PCB clip

- OX = Standard

## IP67 COMBINATION D-SUB CONNECTORS

### Product specification

Basic material	D-SUB			D-SUB High Density		
	SlimCon	Solid Body	Standard	SlimCon	Solid Body	Standard
Number of poles	9 - 25 pos.	9 - 50 pos.		15 - 44 pos.	15 - 78 pos.	
Contact	Copper alloy					
Contact plating	Gold over nickel					
Insulator	PBT GF UL 94 V-0					
One-piece shell Zinc die-cast nickel plated	✓	✓		✓	✓	
Shell Brass tin plated (Stainless steel on request)			✓			✓
<b>Technical data</b>						
Test voltage	1000 V, 50 Hz, for 1 minute					
Working voltage	125 V AC/DC depending on isolation coordination refer to DIN VDE 0110 / IEC 664-1			60 V AC/DC		
Current rating	7.5 A (UL) / 5 A (CSA, VDE)			3 A (UL) / 2.5 A (CSA, VDE)		
Contact resistance	max. 10 mΩ prior to stressing ΔR max. 10 mΩ after stressing per IEC 60807-2					
Insulation resistance	≥ 5 GΩ					
Clearance and creepage distance	Contact - Contact ≥ 1.0 mm / 0.04" Contact - earth ≥ 1.2 mm / 0.047"			≥ 0.6 mm / 0.024"		
Operating temperature	-40 °C to +105 °C		-25 °C to +105 °C	-40 °C to +105 °C		-25 °C to +105 °C
Mounting style Rear panel mounting/ Panel thickness	min. 0.8 mm to 1.3 mm	min. 1 mm to 1.6 mm		min. 0.8 mm to 1.3 mm	min. 1 mm to 1.6 mm	
Mounting style Front panel mounting			✓		✓	
Mating and unmating forces	9 pos. ≤ 30 N 15 pos. ≤ 50 N 25 pos. ≤ 30 N	9 pos. ≤ 30 N 15 pos. ≤ 50 N 25 pos. ≤ 83 N 37 pos. ≤ 123 N 50 pos. ≤ 167 N		15 pos. ≤ 50 N 26 pos. ≤ 84 N 44 pos. ≤ 120 N	15 pos. ≤ 50 N 26 pos. ≤ 84 N 44 pos. ≤ 120 N 62 pos. ≤ 170 N 78 pos. ≤ 200 N	
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles					
Recommended wavesolder parameters	Preheating		Solder terminal dipping parameters			
	max. temperature	duration (max.)	max. Solder bath temperature		max. terminal immersion time	
IP67 D-SUB CONEC SlimCon and Solid Body	150 °C	180 s	265 °C		8 s	
IP67 D-SUB Standard	120 °C	120 s	240 °C		5 s	

Technical specifications are subject to change without notice.

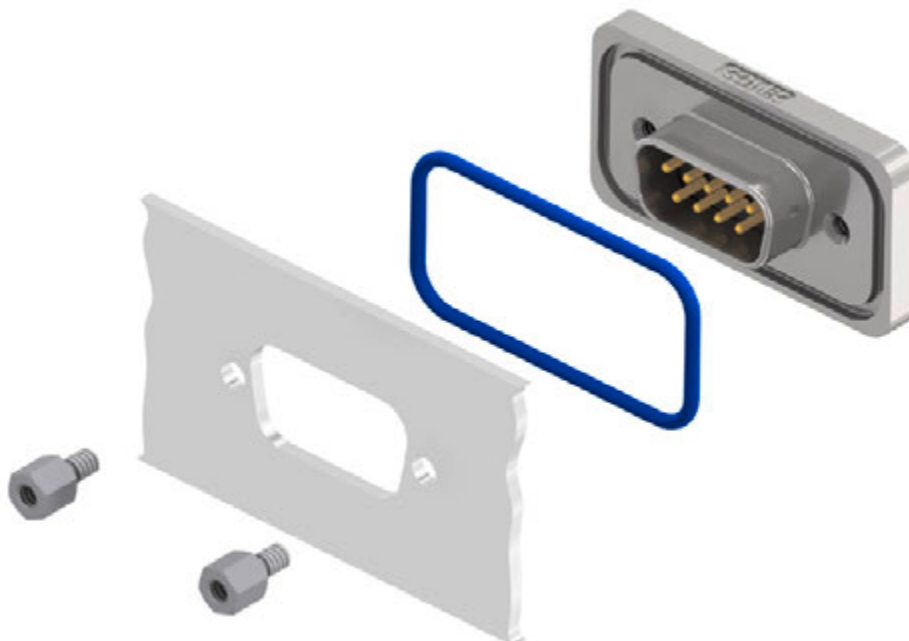
## IP67 D-SUB CONNECTORS

### Panel mounting

#### Front panel mounting



#### Back panel mounting

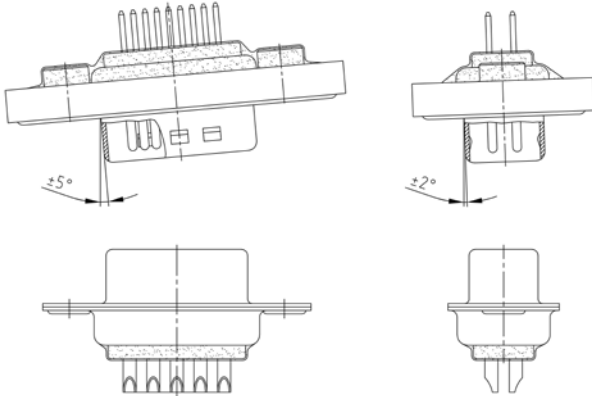


The hex bolts illustrated here (4-40 UNC or M3 threads) are included in the delivery complement of every connector with a sealing frame. The length of this spacer has been selected to accommodate a panel thickness of .063"/1.6 mm (standard & solid body)/.051"/1.3 mm (CONEC SlimCon) such that it does not extend beyond the plug-in height. Material: stainless steel.

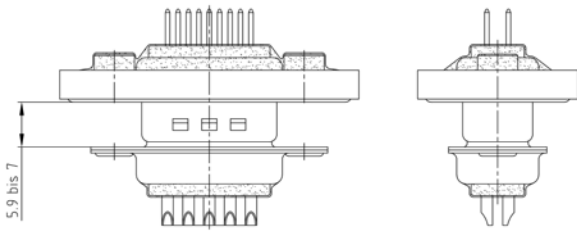
# IP67 D-SUB CONNECTORS

## Mating conditions

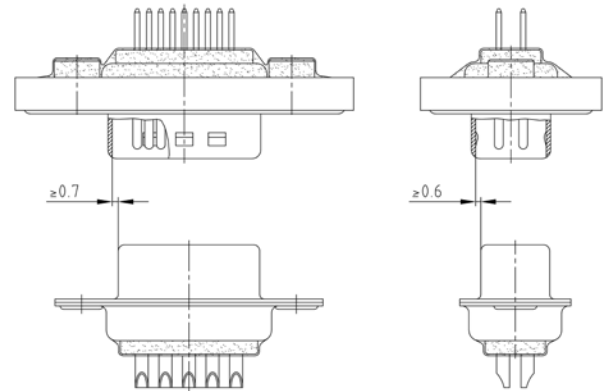
### Max. tilt angle for connector mating



### Range for safe contact

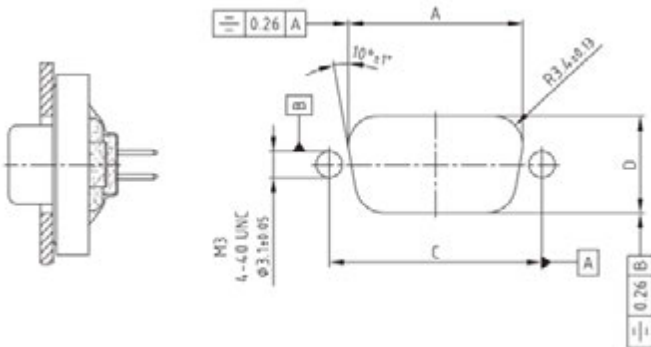


### Lock-in range

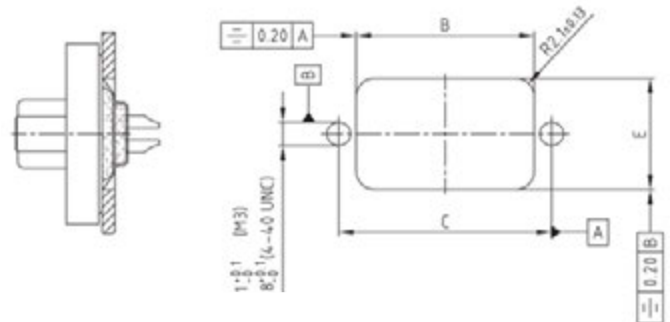


## Panel cut-out

### Back panel mounting



### Front panel mounting



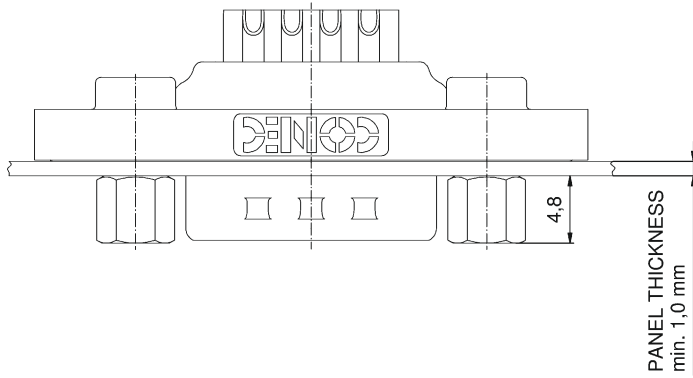
Shell size	A ±0.1	B ±0.1	C ±0.1	D ±0.1	E ±0.1
1	20.50	20.90	25.00	11.40	13.00
2	28.80	29.20	33.30	11.40	13.00
3	42.50	42.90	47.04	11.40	13.00
4	59.10	59.40	63.50	11.40	13.00
5	56.30	57.00	61.10	14.10	15.80

Technical specifications are subject to change without notice.

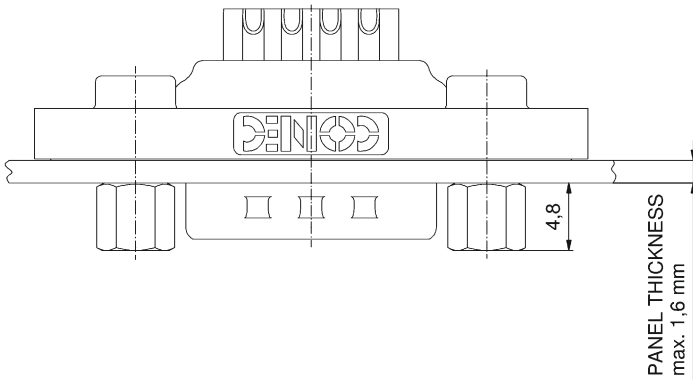
## IP67 D-SUB CONNECTORS

### Assembly for series Solid Body and Standard Rear Panel Mounting

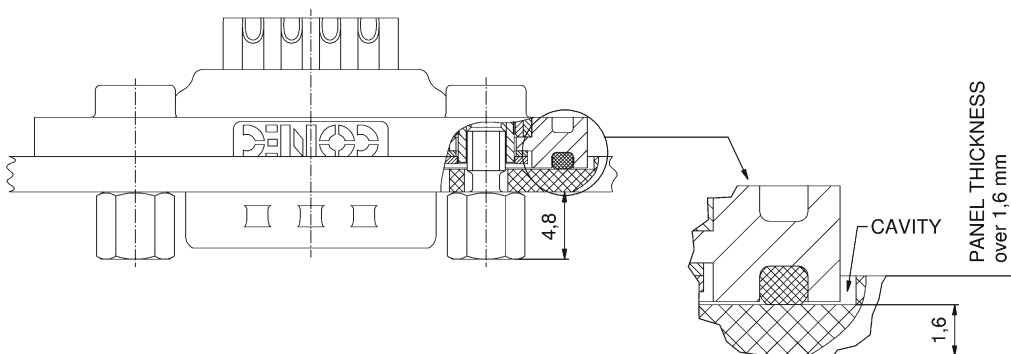
Panel thickness min. 1.0 mm



Panel thickness max. 1.6 mm



Panel thickness over 1.6 mm

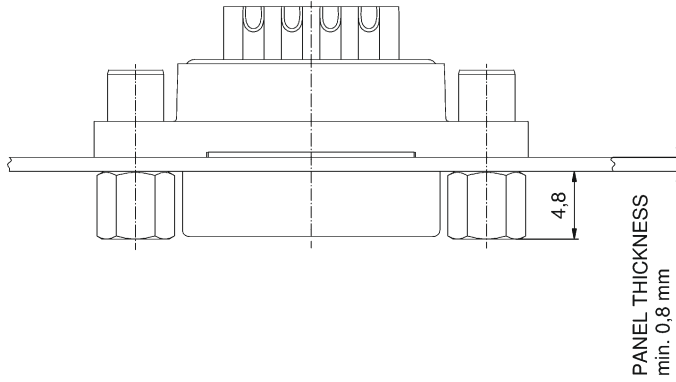


Technical specifications are subject to change without notice.

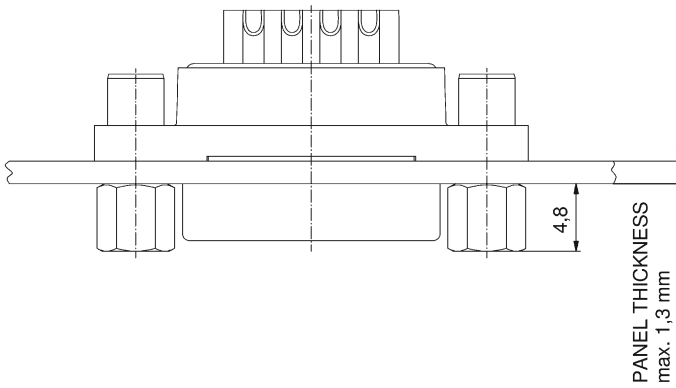
## IP67 D-SUB CONNECTORS

### Assembly for series CONEC SlimCon Rear Panel Mounting

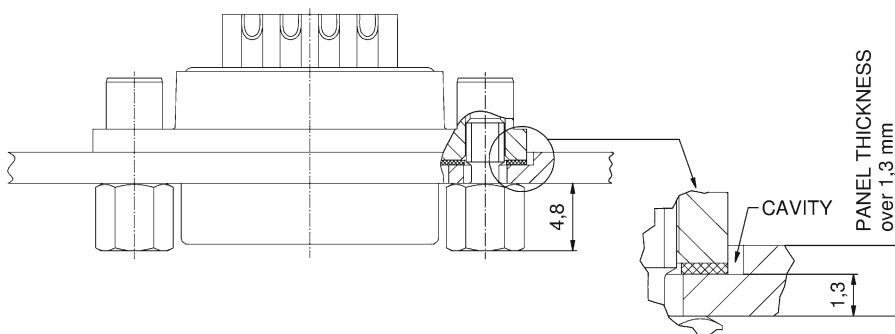
Panel thickness min. 0.8 mm



Panel thickness max. 1.3 mm



Panel thickness over 1.3 mm



Technical specifications are subject to change without notice.

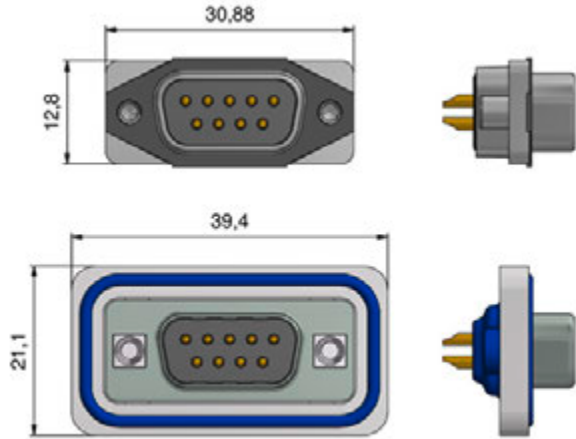


## IP67 D-SUB CONNECTORS

### Size comparison

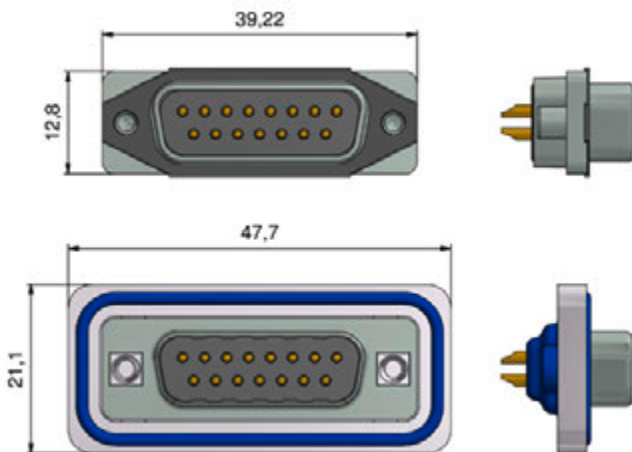
Series Standard/Solid Body versus series CONEC SlimCon

#### Size 1



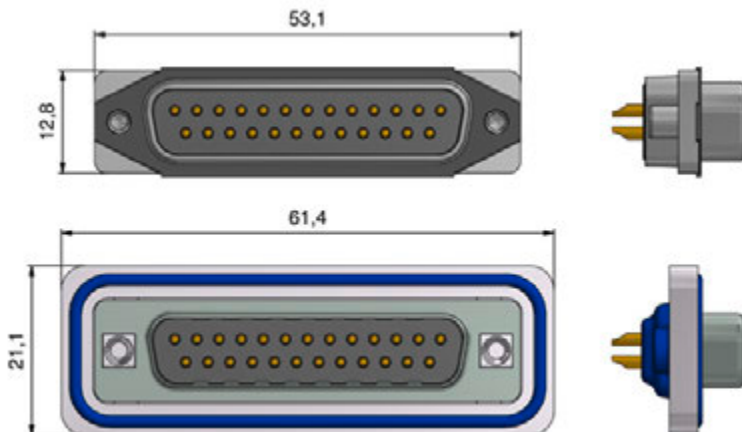
IP67 D-SUB CONEC SlimCon	IP67 D-SUB Standard/ Solid Body	Space-saving	Reduction of mounting space
30.88 mm	39.4 mm	8.3 mm / 13.5 %	52 %
12.8 mm	21.1 mm	8.3 mm / 39 %	

#### Size 2



IP67 D-SUB CONEC SlimCon	IP67 D-SUB Standard/ Solid Body	Space-saving	Reduction of mounting space
39.22 mm	47.7 mm	8.3 mm / 13.5 %	50 %
12.8 mm	21.1 mm	8.3 mm / 39 %	

#### Size 3




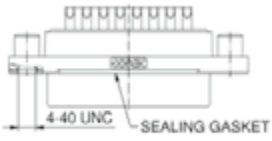
IP67 D-SUB CONEC SlimCon	IP67 D-SUB Standard/ Solid Body	Space-saving	Reduction of mounting space
53.1 mm	61.4 mm	8.3 mm / 13.5 %	48 %
12.8 mm	21.1 mm	8.3 mm / 39 %	

Technical specifications are subject to change without notice.


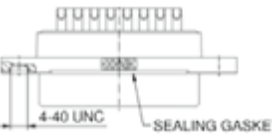
**IP67 D-SUB CONNECTORS**  
**CONEC SlimCon**

Solder cup  
Precision machined contacts, AWG 20

4-40 UNC threaded insert


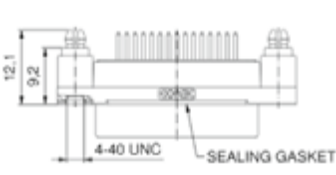
 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
					Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA, VDE)	125	3	15-006293	15-006243
	15				15-006303	15-006253
	25				15-006313	15-006263

4-40 UNC threaded insert (for cable assembly and overmould)

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
					Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA, VDE)	125	3	15-006393	15-006343
	15				15-006403	15-006353
	25				15-006413	15-006363

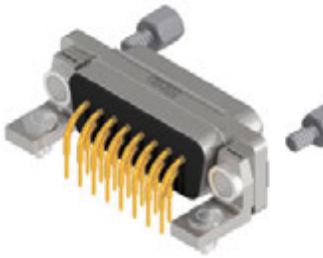
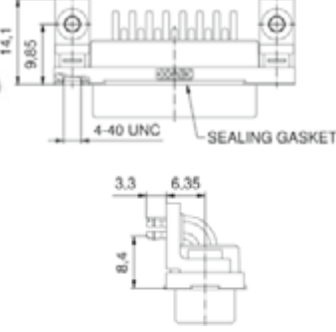
Solder pin, straight  
Precision machined contacts

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
					Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA, VDE)	125	3	15-006493	15-006443
	15				15-006503	15-006453
	25				15-006513	15-006463

Solder pin, angled, .331"/8.4 mm  
Precision machined contacts, metal bracket


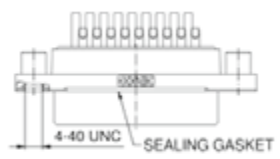
Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
					Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA, VDE)	125	3	15-006593	15-006543
	15				15-006603	15-006553
	25				15-006613	15-006563


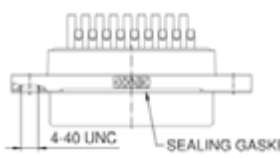
**IP67 D-SUB HIGH DENSITY CONNECTORS**  
**CONEC SlimCon**

Solder cup  
 Precision machined contacts, AWG 22

4-40 UNC threaded insert


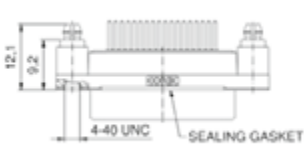
 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-007853	15-007823
26	3 (UL, VDE) / 2.5 (CSA)	15-007863			15-007833	
44	3 (UL, VDE) / 2.5 (CSA)	15-007873			15-007843	

4-40 UNC threaded insert (for cable assembly and overmould)

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-007673	15-007703
26	3 (UL, VDE) / 2.5 (CSA)	15-007683			15-007713	
44	3 (UL, VDE) / 2.5 (CSA)	15-007693			15-007723	


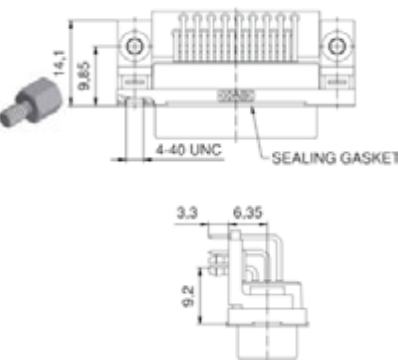
Solder pin, straight  
 Precision machined contacts

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-007553	15-007583
26	3 (UL, VDE) / 2.5 (CSA)	15-007563			15-007593	
44	3 (UL, VDE) / 2.5 (CSA)	15-007573			15-007603	

Solder pin, angled, .362" / 9.2 mm  
 Precision machined contacts, metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-007613	15-007643
26	3 (UL, VDE) / 2.5 (CSA)	15-007623			15-007653	
44	3 (UL, VDE) / 2.5 (CSA)	15-007633			15-007663	


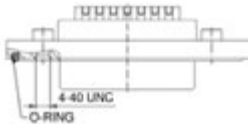
One-piece shell: zinc die-cast nickel plated  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles

**IP67 D-SUB CONNECTORS**  
Standard Solid Body

Solder cup  
Precision machined contacts, AWG 20

4-40 UNC threaded insert


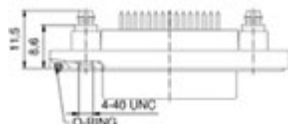
One-piece shell: zinc die-cast nickel plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
					Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA, VDE)	125	3	15-000613	15-000573
	15				15-000623	15-000583
	25				15-000633	15-000593
	37				15-000643	15-000603
	50				15-002103	15-002093

Solder pin, straight  
Precision machined contacts

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

Part No. Socket contact Part No. Plug contact


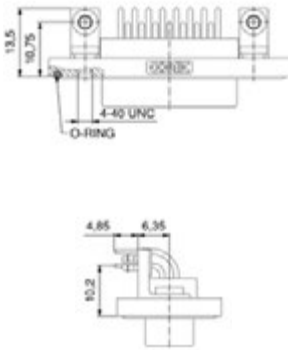
 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
					Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA, VDE)	125	3	15-000453	15-000413
	15				15-000463	15-000423
	25				15-000473	15-000433
	37				15-000483	15-000443
	50				15-002063	15-002053

**IP67 D-SUB CONNECTORS**  
Standard Solid Body

Solder pin, angled, .402" / 10.2 mm  
Precision machined contacts, metal bracket


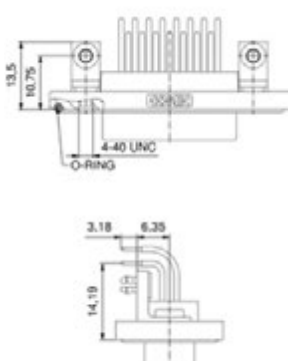
Clip for PCB 1.6 mm, 4-40 UNC threaded insert

One-piece shell: zinc die-cast nickel plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	3	15-000773	15-000733
15	15-000783				15-000743	
25	15-000793				15-000753	
37	15-000803				15-000763	
50	15-002143				15-002133	

Solder pin, angled, .590" / 14.19 mm  
Precision machined contacts, metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert


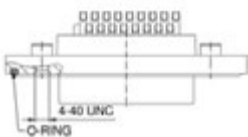
 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	3	15-000853	15-000813
15	15-000863				15-000823	
25	15-000873				15-000833	
37	15-000883				15-000843	
50	15-002163				15-002153	

**IP67 D-SUB CONNECTORS**  
High Density Solid Body

Solder cup  
Precision machined contacts, AWG 22

4-40 UNC threaded insert

One-piece shell: zinc die-cast nickel plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles


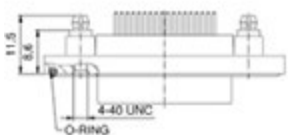
 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-000693	15-000653
26	15-000703				15-000663	
44	15-000713				15-000673	
62	15-000723				15-000683	
78	15-002123				15-002113	

**IP67 D-SUB CONNECTORS**  
High Density Solid Body

Solder pin, straight  
Precision machined contacts

4-40 UNC threaded rear spacer clip for PCB 1.6 mm


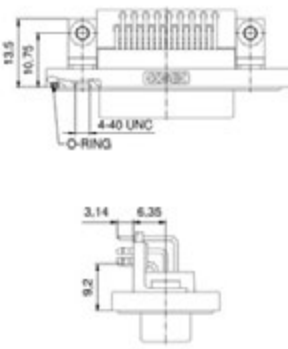
One-piece shell: zinc die-cast nickel plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-000533	15-000493
	26				15-000543	15-000503
	44				15-000553	15-000513
	62				15-000563	15-000523
	78				15-002183	15-002073

Solder pin, angled, .362"/9.2 mm  
Precision machined contacts, metal bracket


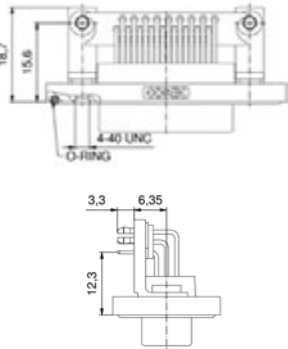
Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Part No. Socket contact Part No. Plug contact

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-002243	15-002193
	26				15-002253	15-002203
	44				15-002263	15-002213
	62				15-002273	15-002223
	78				15-002283	15-002233

Solder pin, angled, .484"/12.3 mm  
Precision machined contacts, metal bracket


Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-000933	15-000893
	26				15-000943	15-000903
	44				15-000953	15-000913
	62				15-000963	15-000923

## IP67 D-SUB CONNECTORS Standard

Solder cup  
Precision machined contacts, AWG 20


4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	6STD09SAM99B30X	6STD09PAM99B30X	
	15					6STD15SAM99B30X	6STD15PAM99B30X	
	25					6STD25SAM99B30X	6STD25PAM99B30X	
	37					6STD37SAM99B30X	6STD37PAM99B30X	
	50					6STD50SAM99B30X	6STD50PAM99B30X	

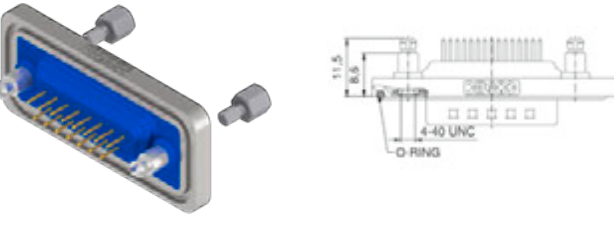
Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Solder pin, straight  
Precision machined contacts

4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	6STD09SAR99B30X	6STD09PAR99B30X	
	15					6STD15SAR99B30X	6STD15PAR99B30X	
	25					6STD25SAR99B30X	6STD25PAR99B30X	
	37					6STD37SAR99B30X	6STD37PAR99B30X	
	50					6STD50SAR99B30X	6STD50PAR99B30X	

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	6STD09SAR99E20X	6STD09PAR99E20X	
	15					6STD15SAR99E20X	6STD15PAR99E20X	
	25					6STD25SAR99E20X	6STD25PAR99E20X	
	37					6STD37SAR99E20X	6STD37PAR99E20X	
	50					6STD50SAR99E20X	6STD50PAR99E20X	

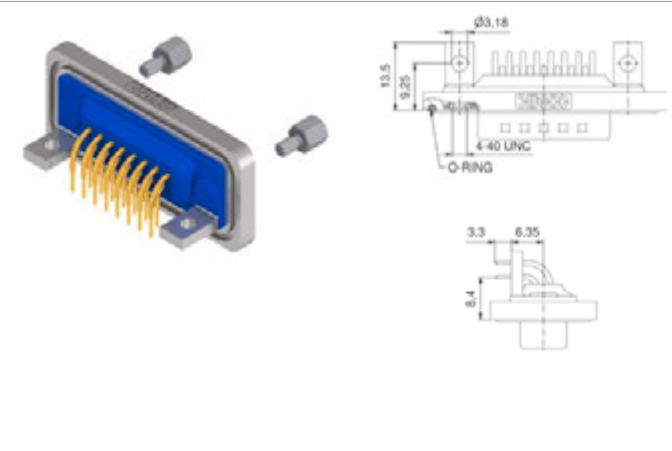
**IP67 D-SUB CONNECTORS**  
Standard

Solder pin, angled, .331"/8.4 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

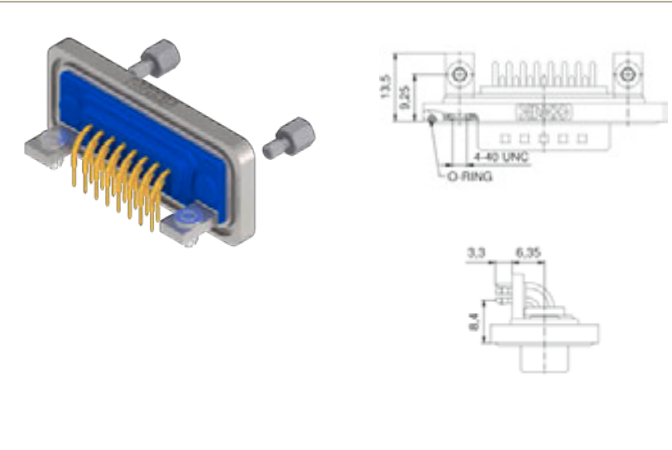
Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
09	75 (UL) / 5 (CSA VDE)	125	E202784	3	6STD09SAT99S20X	6STD09PAT99S20X
15					6STD15SAT99S20X	6STD15PAT99S20X
25					6STD25SAT99S20X	6STD25PAT99S20X
37					6STD37SAT99S20X	6STD37PAT99S20X
50					6STD50SAT99S20X	6STD50PAT99S20X



Clip for PCB 1.6 mm, 4-40 UNC threaded insert

09	75 (UL) / 5 (CSA VDE)	125	E202784	3	6STD09SAT99S40X	6STD09PAT99S40X
15					6STD15SAT99S40X	6STD15PAT99S40X
25					6STD25SAT99S40X	6STD25PAT99S40X
37					6STD37SAT99S40X	6STD37PAT99S40X
50					6STD50SAT99S40X	6STD50PAT99S40X

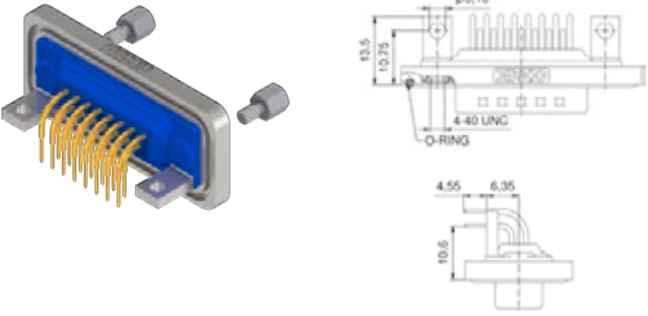




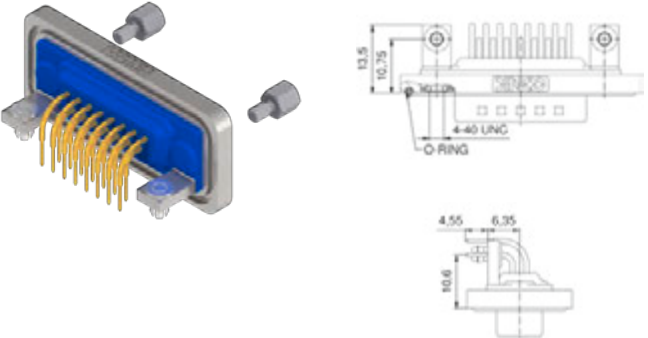
## IP67 D-SUB CONNECTORS Standard

Solder pin, angled, .417" / 10.6 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No.	
							Socket contact	Plug contact
		09	75 (UI) / 5 (CSA VDE)	125	E202784	3	6STD09SAU99R20X	6STD09PAU99R20X
		15					6STD15SAU99R20X	6STD15PAU99R20X
		25					6STD25SAU99R20X	6STD25PAU99R20X
		37					6STD37SAU99R20X	6STD37PAU99R20X
		50					6STD50SAU99R20X	6STD50PAU99R20X

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

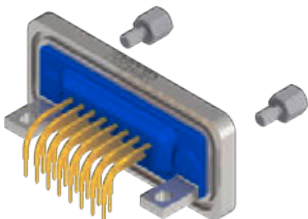
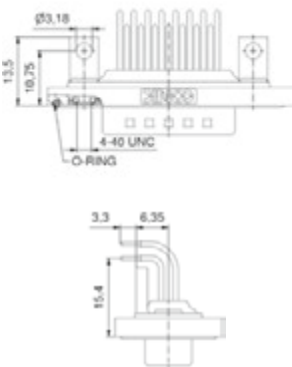
		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No.	
							Socket contact	Plug contact
		09	75 (UI) / 5 (CSA VDE)	125	E202784	3	6STD09SAU99R40X	6STD09PAU99R40X
		15					6STD15SAU99R40X	6STD15PAU99R40X
		25					6STD25SAU99R40X	6STD25PAU99R40X
		37					6STD37SAU99R40X	6STD37PAU99R40X
		50					6STD50SAU99R40X	6STD50PAU99R40X

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

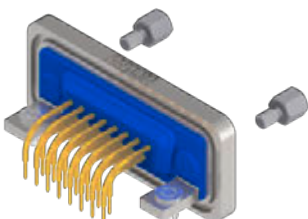
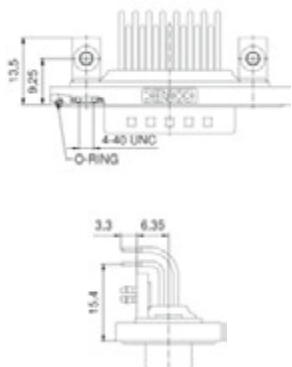
**IP67 D-SUB CONNECTORS**  
Standard

Solder pin, angled, .606" / 15.4 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	6STD09SAZ99S20X	6STD09PAZ99S20X	
	15					6STD15SAZ99S20X	6STD15PAZ99S20X	
	25					6STD25SAZ99S20X	6STD25PAZ99S20X	
	37					6STD37SAZ99S20X	6STD37PAZ99S20X	

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

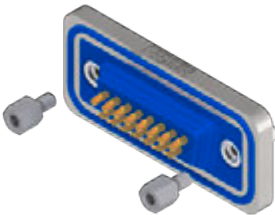
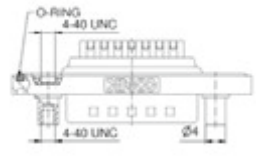
 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	6STD09SAZ99S40X	6STD09PAZ99S40X
	15					6STD15SAZ99S40X	6STD15PAZ99S40X
	25					6STD25SAZ99S40X	6STD25PAZ99S40X
	37					6STD37SAZ99S40X	6STD37PAZ99S40X

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

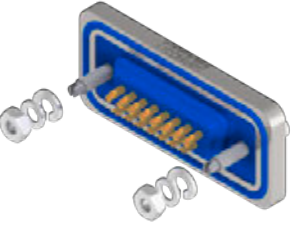
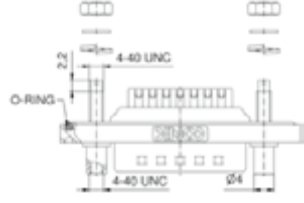
**IP67 D-SUB CONNECTORS**  
Standard

Solder cup, precision machined contacts  
Front panel mounting, AWG 20

4-40 UNC Front spacer

 	No. of poles	75 (UL) / 5 (CSA VDE)	125	E202784	3	Part No. Socket contact	Part No. Plug contact
	09					6STD09SAM99B50X	6STD09PAM99B50X
	15					6STD15SAM99B50X	6STD15PAM99B50X
	25					6STD25SAM99B50X	6STD25PAM99B50X
	37					6STD37SAM99B50X	6STD37PAM99B50X
50	6STD50SAM99B50X	6STD50PAM99B50X					


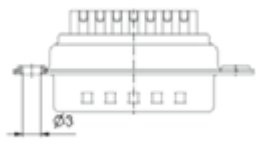
4-40 UNC Front spacer and rear mounting stud

 	No. of poles	75 (UL) / 5 (CSA VDE)	125	E202784	3	Part No. Socket contact	Part No. Plug contact
	09					6STD09SAM99B70X	6STD09PAM99B70X
	15					6STD15SAM99B70X	6STD15PAM99B70X
	25					6STD25SAM99B70X	6STD25PAM99B70X
	37					6STD37SAM99B70X	6STD37PAM99B70X
50	6STD50SAM99B70X	6STD50PAM99B70X					

**IP67 D-SUB CONNECTORS**  
Standard

Solder cup, precision machined contacts  
Hood Assembly, AWG 20

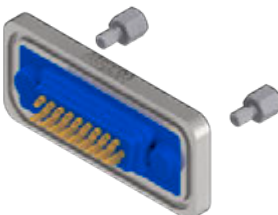
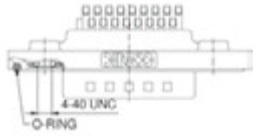
Through-hole Ø 3 mm

 	No. of poles	75 (UL) / 5 (CSA VDE)	125	E202784	3	Part No. Socket contact	Part No. Plug contact
	09					4STD09SAM99A10X	4STD09PAM99A10X
	15					4STD15SAM99A10X	4STD15PAM99A10X
	25					4STD25SAM99A10X	4STD25PAM99A10X
	37					4STD37SAM99A10X	4STD37PAM99A10X
50	4STD50SAM99A10X	4STD50PAM99A10X					

**IP67 D-SUB CONNECTORS**  
High Density

Solder cup  
Precision machined contacts, AWG 22

4-40 UNC threaded insert

 	No. of poles	3 (UL VDE) / 2.5 (CSA)	60	E202784	3	Part No. Socket contact	Part No. Plug contact
	15					6HDD15SAM99B30X	6HDD15PAM99B30X
	26					6HDD26SAM99B30X	6HDD26PAM99B30X
	44					6HDD44SAM99B30X	6HDD44PAM99B30X
	62					6HDD62SAM99B30X	6HDD62PAM99B30X
78	6HDD78SAM99B30X	6HDD78PAM99B30X					

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles

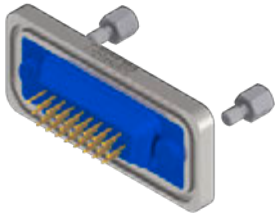
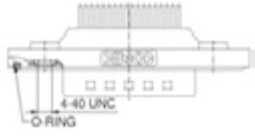
Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**IP67 D-SUB CONNECTORS**  
High Density

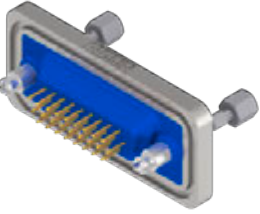
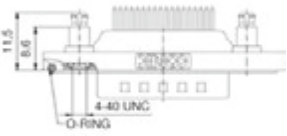
Solder pin, straight  
Precision machined contacts

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert

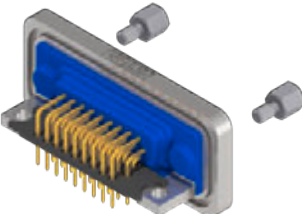
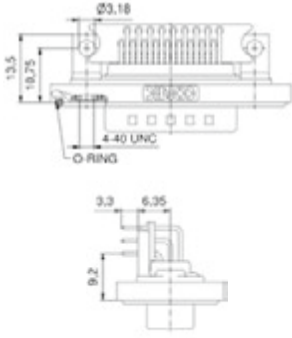
		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
		15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	6HDD15SAR99B30X	6HDD15PAR99B30X
		26					6HDD26SAR99B30X	6HDD26PAR99B30X
		44					6HDD44SAR99B30X	6HDD44PAR99B30X
		62					6HDD62SAR99B30X	6HDD62PAR99B30X
		78					6HDD78SAR99B30X	6HDD78PAR99B30X

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

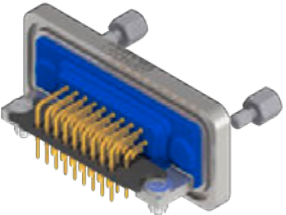
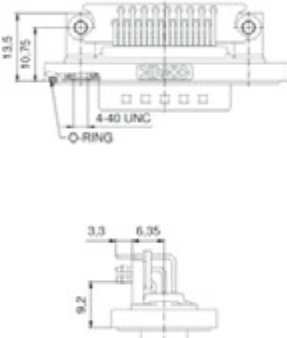
		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
		15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	6HDD15SAR99E20X	6HDD15PAR99E20X
		26					6HDD26SAR99E20X	6HDD26PAR99E20X
		44					6HDD44SAR99E20X	6HDD44PAR99E20X
		62					6HDD62SAR99E20X	6HDD62PAR99E20X
		78					6HDD78SAR99E20X	6HDD78PAR99E20X

Solder pin, angled, .362"/9.2 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
		15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	6HDD15SAY99R20X	6HDD15PAY99R20X
		26					6HDD26SAY99R20X	6HDD26PAY99R20X
		44					6HDD44SAY99R20X	6HDD44PAY99R20X
		62					6HDD62SAY99R20X	6HDD62PAY99R20X
		78					6HDD78SAY99R20X	6HDD78PAY99R20X

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
		15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	6HDD15SAY99R40X	6HDD15PAY99R40X
		26					6HDD26SAY99R40X	6HDD26PAY99R40X
		44					6HDD44SAY99R40X	6HDD44PAY99R40X
		62					6HDD62SAY99R40X	6HDD62PAY99R40X
		78					6HDD78SAY99R40X	6HDD78PAY99R40X

**IP67 D-SUB CONNECTORS**  
High Density

Solder cup, precision machined contacts  
Front panel mounting, AWG 22

4-40 UNC front spacer

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact		Part No. Plug contact	
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	6HDD15SAM99B50X	6HDD15PAM99B50X		
26					6HDD26SAM99B50X	6HDD26PAM99B50X		
44					6HDD44SAM99B50X	6HDD44PAM99B50X		
62					6HDD62SAM99B50X	6HDD62PAM99B50X		
78					6HDD78SAM99B50X	6HDD78PAM99B50X		

4-40 UNC Front spacer and rear mounting stud

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact		Part No. Plug contact	
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	6HDD15SAM99B70X	6HDD15PAM99B70X		
26					6HDD26SAM99B70X	6HDD26PAM99B70X		
44					6HDD44SAM99B70X	6HDD44PAM99B70X		
62					6HDD62SAM99B70X	6HDD62PAM99B70X		
78					6HDD78SAM99B70X	6HDD78PAM99B70X		

**IP67 D-SUB CONNECTORS**  
High Density

Solder cup, precision machined contacts  
Hood Assembly, AWG 22

Through-hole Ø 3 mm

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact		Part No. Plug contact	
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	4HDD15SAM99A10X	4HDD15PAM99A10X		
26					4HDD26SAM99A10X	4HDD26PAM99A10X		
44					4HDD44SAM99A10X	4HDD44PAM99A10X		
62					4HDD62SAM99A10X	4HDD62PAM99A10X		
78					4HDD78SAM99A10X	4HDD78PAM99A10X		

**IP67 D-SUB CONNECTORS**  
Standard

Interface adapter, connector saver  
Plug connector - socket connector

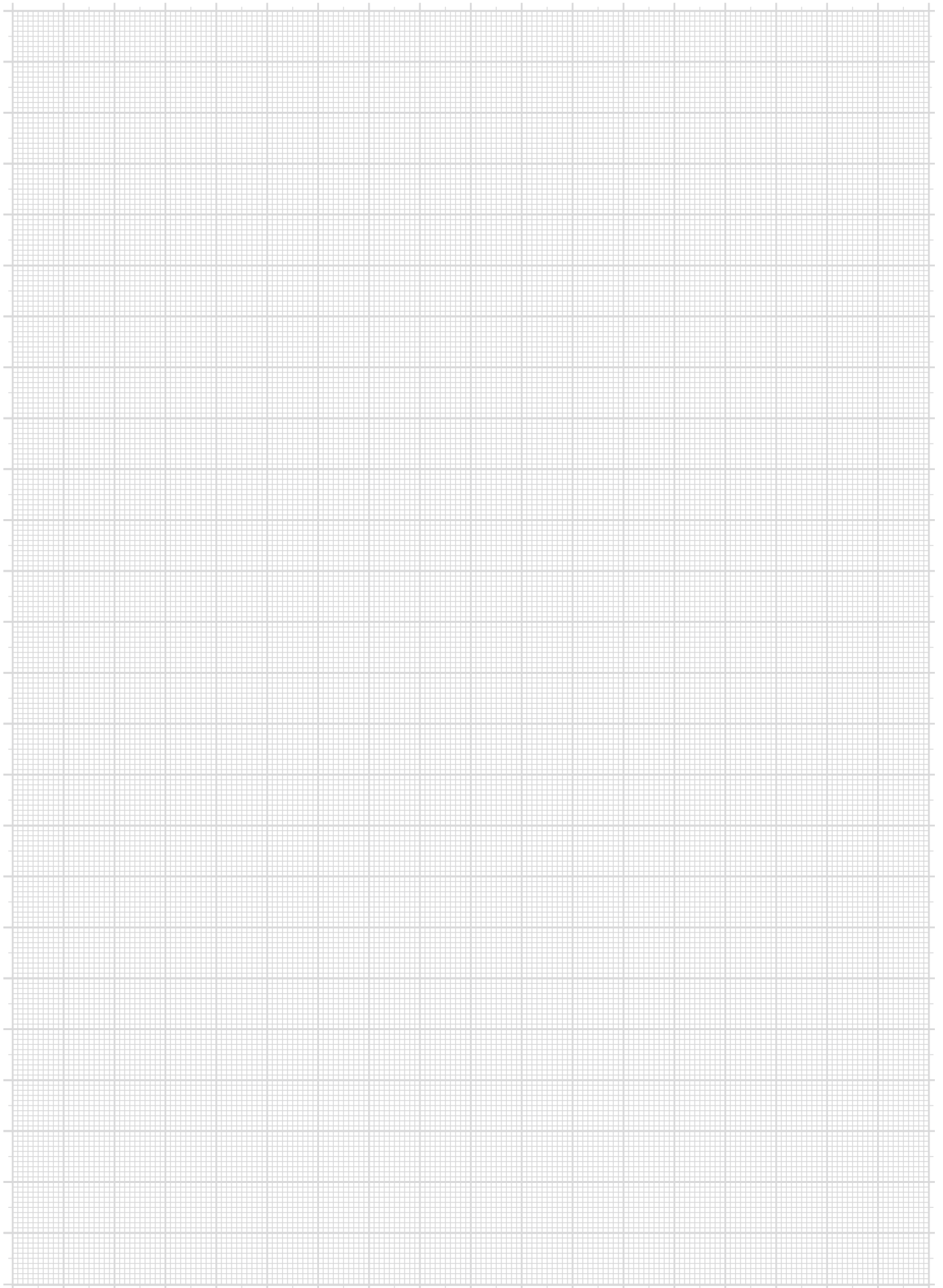
4-40 UNC threaded rear spacer

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	
09	7.5 (UL) / 5 (CSA, VDE)	125	E202784	3	6STD09AAA99B90X	
15					6STD15AAA99B90X	
25					6STD25AAA99B90X	
37					6STD37AAA99B90X	

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

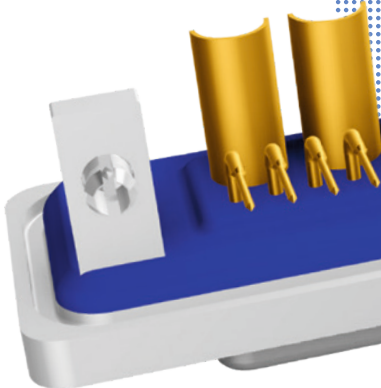
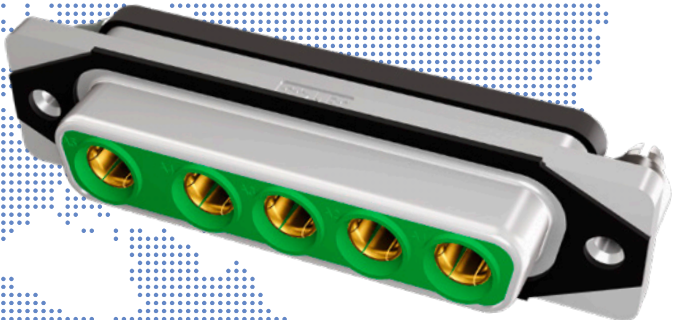
Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles

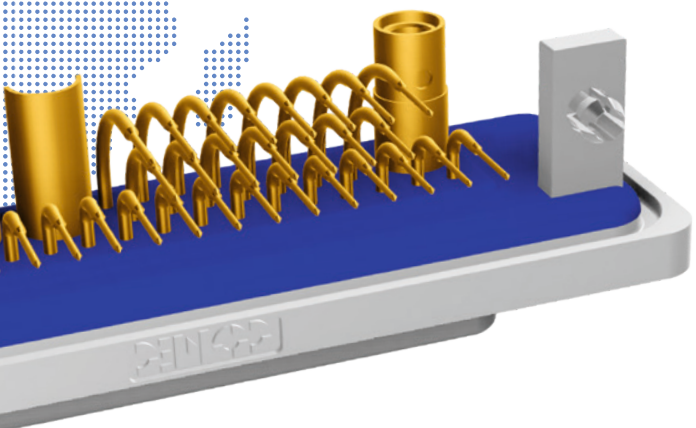
Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles



SECTION 7

# IP67 COMBINATION D-SUB CONNECTORS







# IP67 COMBINATION D-SUB CONNECTORS

## Part Number Creator

6 0 0 7 W 2 S A M 6 2 B 3 0 X

### Product Line

- 6 = Shell: Brass tin plated with die-cast frame
- 4\* = Shell: Brass tin plated with or without plastic frame
- 8\* = Shell: Stainless steel with or without die-cast frame
- 9\* = Shell: Stainless steel with plastic frame
- \* on request

### Variations

- Shellsize 1 = 5W1, 2W2C
- Shellsize 2 = 3W3, 7W2, 11W1, 3W3C
- Shellsize 3 = 5W5, 9W4, 13W3, 17W2, 21W1
- Shellsize 4 = 8W8, 13W6, 17W5, 21WA4, 25W3, 27W2
- Shellsize 5 = 24W7, 36W4, 43W2, 47W1
- Empty positions ADD „0“ for example 007W2

### Contact type

- P = Plug connector
- S = Socket connector

### Plating code/Quality class for signal contacts

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles
- C = Quality class 1 = 500 mating cycles
- X = without signal contact

### Termination applies to signal contacts only

- M = Solder cup
- R = Solder pin – Straight
- T = Solder pin – Angled, .189" / 4.80 mm
- U = Solder pin – Angled, .276" / 7.00 mm
- Z = Solder pin – Angled, .465" / 11.80 mm X = 3W3, 5W5, 8W8, 2W2C, 3W3C

### Termination for high power or coaxial contacts

#### Quality class 3 / Quality class 1

- 61 / 41 = Solder cup 10 A
- 62 / 42 = Solder cup 20 A
- 68 / 48 = Solder pin – Straight 20 A, D= .077" 1.95 mm
- 69 / 49 = Solder pin – Straight 20 A, D= .102" 2.60 mm
- 70 / 50 = Solder pin – Straight 20 A, D= .112" 2.85 mm
- 71 / 51 = Solder pin – Straight 30 A, D= .125" 3.18 mm
- 72 / 52 = Solder pin – Straight 40 A, D= .148" 3.75 mm
- 59 / 55 = Solder pin – Angled 15 A
- 73 / 56 = Solder pin – Angled 20 A
- 74 / 57 = Solder pin – Angled 30 A
- 75 / 58 = Solder pin – Angled 40 A
- 77 / 60 = Solder pin – Angled 40 A

#### Quality class 3 / Quality class 1

- 85 / 65 = Solder pin – Angled 30 A
- 81 / 66 = Solder pin – Angled 20 A
- 82 / 67 = Solder pin – Angled 30 A
- F9 / H4 = Cable connection straight 75 Ω
- G1 / H5 = Cable connection straight 75 Ω
- G2 / H6 = Cable connection straight 50 Ω
- G3 / H7 = Cable connection straight 50 Ω
- G4 / H8 = Cable connection straight 50 Ω
- G5 / H9 = Cable connection straight 50 Ω
- G6 / K1 = Cable connection straight 50 Ω
- G7 / 76 = 3 solder pins straight 50 Ω
- G8 / 86 = 3 solder pins straight 75 Ω

#### Quality class 3 / Quality class 1

- G9 / 78 = 3 solder pins angled 50 Ω
- H1 / 79 = 3 solder pins angled 50 Ω
- H2 / 88 = 3 solder pins angled 75 Ω
- H3 / 89 = 3 solder pins angled 75 Ω
- R1 = Screw Crimp 10 A
- R2 = Screw Crimp 20A
- R3 = Screw Crimp 30A
- R4 = Screw Crimp 40A

### Mounting style

- A1 = Riveted through hole for hood assembly
- B3 = 4-40 UNC threaded insert
- B5 = 4-40 UNC front spacer
- E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063" 1.60 mm
- S2 = Metal bracket, 4-40 UNC threaded insert
- S4 = Metal bracket, 4-40 UNC threaded insert and PCB clip
- R2 = Metal bracket, 4-40 UNC threaded insert
- R4 = Metal bracket, 4-40 UNC threaded insert PCB clip

- OX = Standard

## IP67 COMBINATION D-SUB CONNECTORS

### Product specification Standard

Basic material	Connectors with			
	Signal contacts	Coaxial contacts	High power contacts	
Contact	Copper alloy			
Contact plating	Flash gold over nickel			
Insulator (Connector)	PBT GF UL 94 V-0 (Connectors)			
Insulator (Contacts)	PTFE/PBTP/PI (Contacts)			
Shell	Brass tin plated (Stainless steel on request)			
Retaining clip	Copper alloy			
<b>Technical Data</b>				
Test voltage	1000 V, 50 Hz, 1 min.	750 V, 50 Hz, 1 min.	1000 V, 50 Hz, 1 min.	
Working voltage	250 V AC/DC depending on isolation coordination refer to DIN VDE 0110 / IEC 664-1			
Current rating	7.5 A (UL) / 5 A (CSA, VDE)	2 A	10 - 40 A (UL)	
Resistance between mated contacts	max. 10 mΩ	max. 2.7 mΩ	max. 1 mΩ	
Insulation resistance	≥ 5 GΩ	≥ 1 GΩ	≥ 5 GΩ	
Characteristic impedance		50/75 Ω		
Frequency range		0-2 GHz		
VSWR-value according MIL-C-39012		≤ 1.2 @ 1.2 GHz ≤ 1.3 @ 1.5 GHz ≤ 1.5 @ 2.0 GHz		
Operating temperature	- 25 °C to + 105 °C			
Mounting style Front or rear panel mounting Panel thickness	min. 1 mm to 1.6 mm			
Insertion force per contact	3.4 N	7 N	7 N	
Extraction force per contact	0.2 N	7 N	approx. 5 N	
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles			
Recommended wave-solder parameters	Preheating		Solder terminal dipping parameters	
	Temperature	duration	max. Solder bath temperature	max. terminal immersion time
IP67 Combination D-SUB Standard	120 °C	120 s	240 °C	5 s

Technical specifications are subject to change without notice

## IP67 COMBINATION D-SUB CONNECTORS

### Product specification Solid Body

Basic material	Solid Body Connectors with			
	D-SUB signal contacts	HD-SUB signal contacts	Coaxial contacts	High power contacts
Contact	Copper alloy			
Contact plating	Flash gold over nickel			
Insulator (Connector)	PBT GF UL 94 V-0			
Insulator (Contacts)			PBT GF UL 94 V-0	
Shell	Zinc die-cast nickel plated			
Retaining clip			Copper alloy	
<b>Technical Data</b>				
Test voltage	1000 V, 50 Hz, 1 min.	1000 V, 50 Hz, 1 min.	750 V, 50 Hz, 1 min.	1000 V, 50 Hz, 1 min.
Working voltage	250 V AC/DC	60 V AC/DC	250 V AC/DC	250 V AC/DC
	depending on isolation coordination refer to DIN VDE 0110 / IEC 664-1			
Current rating	7.5 A (UL) / 5 A (CSA, VDE)	3 A (UL, VDE) / 2.5 A (CSA)	2 A	10 - 40 A (UL)
Resistance between mated contacts	max. 10 mΩ	max. 10 mΩ	max. 2.7 mΩ	max. 1 mΩ
Insulation resistance	≥ 5 GΩ	max. 10 mΩ	≥ 1 GΩ	≥ 5 GΩ
Characteristic impedance			50/75 Ω	
Frequency range			0-2 GHz	
VSWR-value according MIL-C-39012			≤ 1.2 @ 1.2 GHz ≤ 1.3 @ 1.5 GHz ≤ 1.5 @ 2.0 GHz	
Operating temperature	- 40 °C to + 105 °C			
Mounting style Front or rear panel mounting Panel thickness	min. 1 mm to 1.6 mm			
Insertion force per contact	3.4 N	3.4 N	7 N	7 N
Extraction force per contact	0.2 N	0.2 N	7 N	approx. 5 N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles			
Recommended wave-solder parameters	Preheating		Solder terminal dipping parameters	
	Temperature	duration	max. Solder bath temperature	max. terminal immersion time
IP67 Combination D-SUB Solid Body	150 °C	180 s	265 °C	8 s

Technical specifications are subject to change without notice

## IP67 COMBINATION D-SUB CONNECTORS

### Product specification CONEC SlimCon

Basic material	CONEC SlimCon Connectors with			
	D-SUB signal contacts	HD-SUB signal contacts	Coaxial contacts	High power contacts
Contact	Copper alloy			
Contact plating	Flash gold over nickel			
Insulator	PBT GF UL 94 V-0			
Insulator			PTFE/PBTP/PI	
Shell	Zinc die-cast nickel plated			
Retaining clip			Copper alloy	
<b>Technische Daten</b>				
Test voltage	1000 V, 50 Hz, 1 min.	1000 V, 50 Hz, 1 min.	750 V, 50 Hz, 1 min.	1000 V, 50 Hz, 1 min.
Working voltage	250 V AC/DC	60 V AC/DC	250 V AC/DC	250 V AC/DC
	depending on isolation coordination refer to DIN VDE 0110 / IEC 664-1			
Current rating	7.5 A (UL) / 5 A (CSA, VDE)	3 A (UL, VDE) / 2.5 A (CSA)	2 A	10 - 40 A (UL)
Resistance between mated contacts	max. 10 mΩ	max. 10 mΩ	max. 2.7 mΩ	max. 1 mΩ
Insulation resistance	≥ 5 GΩ	max. 10 mΩ	≥ 1 GΩ	≥ 5 GΩ
Characteristic impedance			50/75 Ω	
Frequency range			0-2 GHz	
VSWR-value according MIL-C-39012			≤ 1.2 @ 1.2 GHz ≤ 1.3 @ 1.5 GHz ≤ 1.5 @ 2.0 GHz	
Operating temperature	- 40 °C bis + 105 °C			
Mounting style Front or rear panel mounting Panel thickness	min. 0.8 mm to 1.3 mm			
Insertion force per contact	3.4 N	3.4 N	7 N	7 N
Extraction force per contact	0.2 N	0.2 N	7 N	approx. 5 N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles			
Recommended wave-solder parameters	Preheating		Solder terminal dipping parameters	
	Temperature	duration	max. Solder bath temperature	max. terminal immersion time
IP67 Combination D-SUB CONEC SlimCon	150 °C	180 s	265 °C	8 s

Technical specifications are subject to change without notice

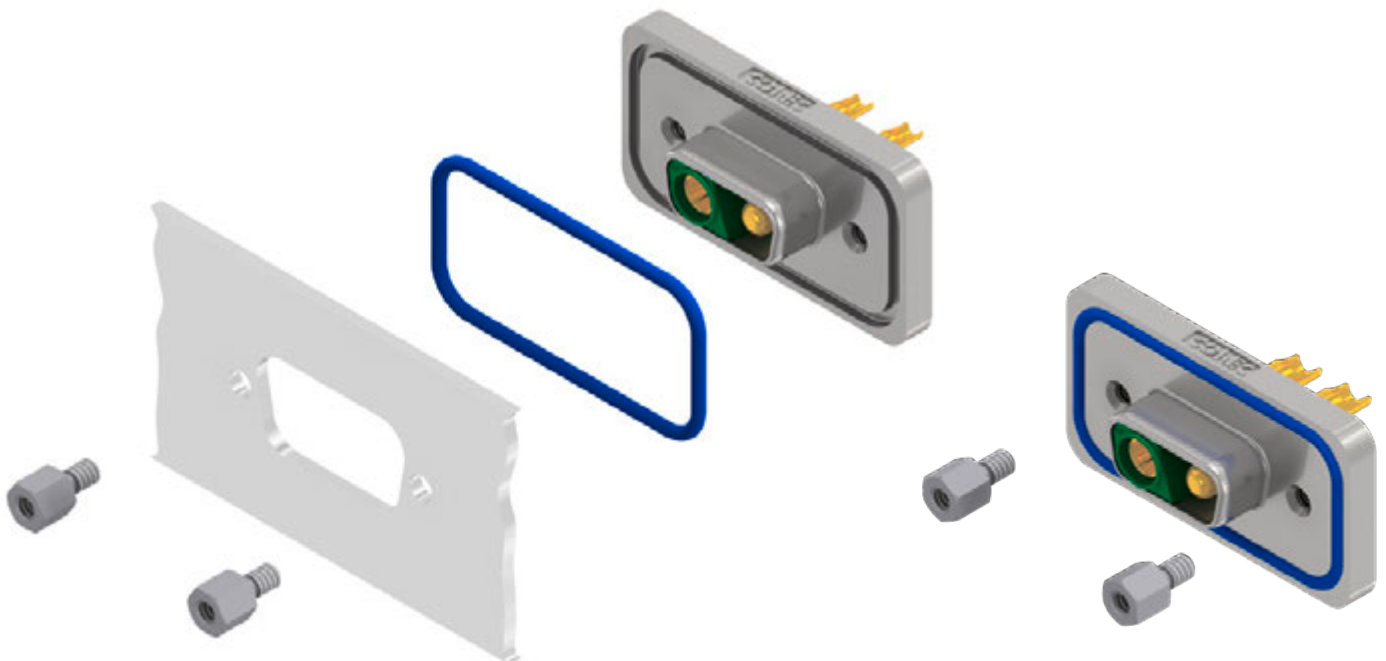
## IP67 COMBINATION D-SUB CONNECTORS

### Panel mounting

#### Front panel mounting



#### Back panel mounting



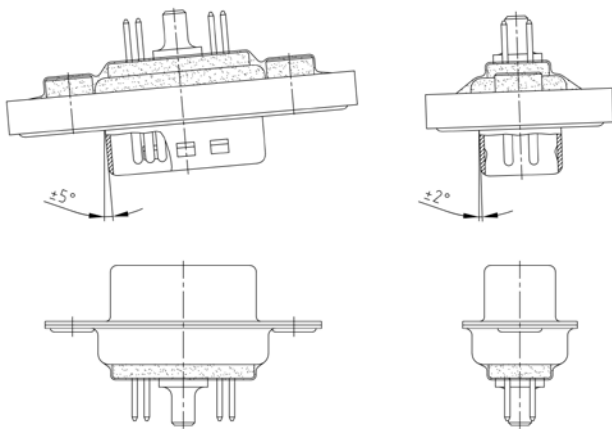
The hex bolts illustrated here (4-40 UNC or M3 threads) are included in the delivery complement of every connector with a sealing frame. The length of this spacer has been selected to accommodate a panel thickness of .063"/1.6 mm (standard & solid body)/.051"/1.3 mm (CONEC SlimCon) such that it does not extend beyond the plug-in height. Material: stainless steel.

Technical specifications are subject to change without notice.

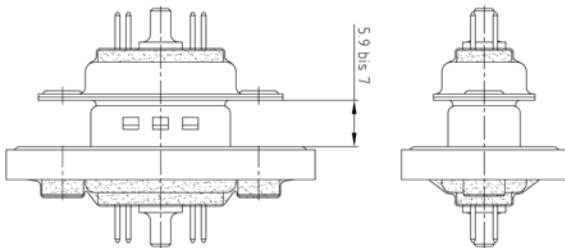
# IP67 COMBINATION D-SUB CONNECTORS

## Mating conditions

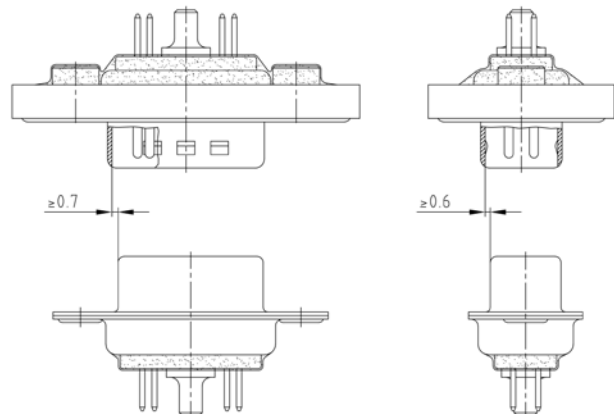
### Max. tilt angle for connector mating



### Range for safe contact

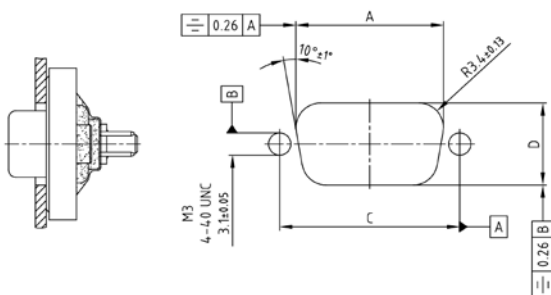


### Lock-in range

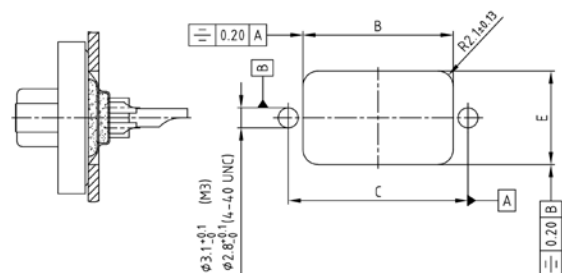


## Panel cut-out

### Back panel mounting



### Front panel mounting



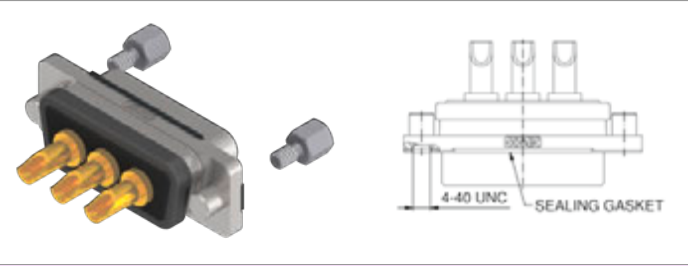
Shell size	A ± 0.1	B ± 0.1	C ± 0.1	D ± 0.1	E ± 0.1
1	20.50	20.90	25.00	11.40	13.00
2	28.80	29.20	33.30	11.40	13.00
3	42.50	42.90	47.04	11.40	13.00
4	59.10	59.40	63.50	11.40	13.00
5	56.30	57.00	61.10	14.10	15.80

Technical specifications are subject to change without notice.

**IP67 COMBINATION D-SUB CONNECTORS**  
**CONEC SlimCon with high power contacts 20 A**

Solder cup straight  
 Precision machined contacts, AWG 12-14

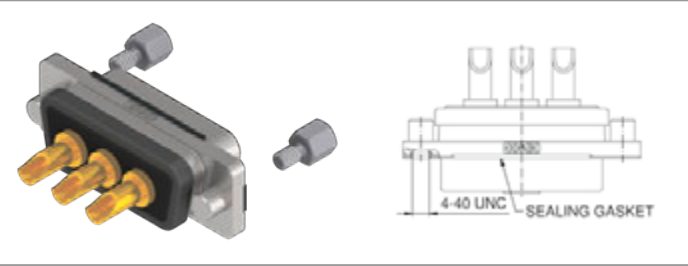
4-40 UNC threaded insert



No. of poles	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
3W3	20	250	3	15-007953	15-008083
5W5				15-007963	15-008093

One-piece zinc die-cast nickel plated shell  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Quality class 1 (C) = 500 mating cycles

4-40 UNC threaded insert, coded version

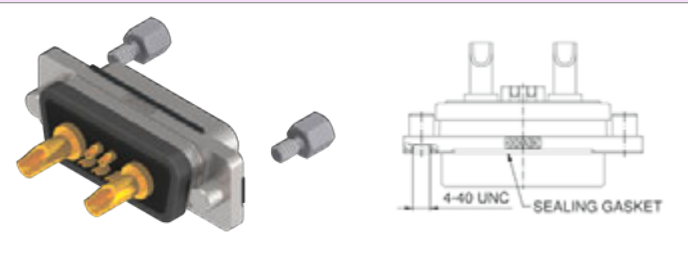


2W2C	20	250	3	15-007933	
3W3C				15-007943	15-008073

**IP67 COMBINATION D-SUB CONNECTORS**  
**CONEC SlimCon with signal contacts & high power contacts 20 A**

Solder cup straight  
 Precision machined contacts, AWG 20 and AWG 12-14

4-40 UNC threaded insert



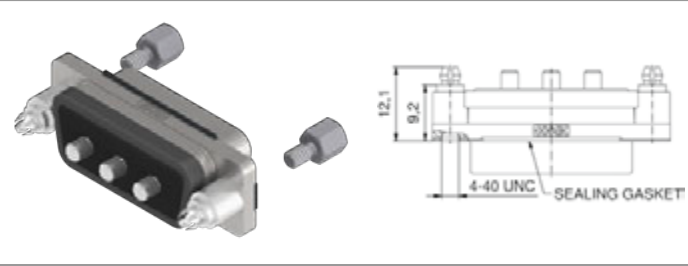
No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
7W2	75 (UI) / 5 (CSA VDE)	20	250	3	15-007973	15-008103

One-piece zinc die-cast nickel plated shell  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Quality class 1 (C) = 500 mating cycles

**IP67 COMBINATION D-SUB CONNECTORS**  
**CONEC SlimCon with high power contacts 20 A**

Solder pin straight  
 Precision machined contacts

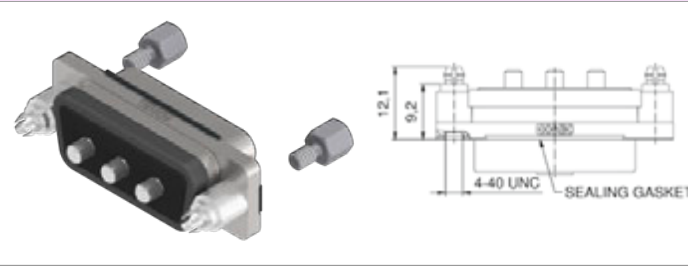
4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm



No. of poles	Current rating high power contacts [A]	Betriebsspannung [V]	Quality class	Part No. Socket contact	Part No. Plug contact
3W3	20	250	3	15-007083	15-007213
5W5				15-007093	15-007223

One-piece zinc die-cast nickel plated shell  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Quality class 1 (C) = 500 mating cycles

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm, coded version

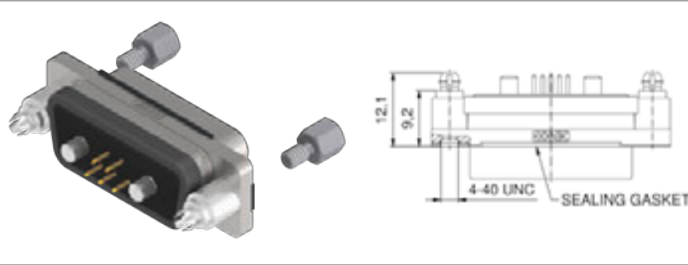


2W2C	20	250	3	15-007063	
3W3C				15-007073	15-007203

**IP67 COMBINATION D-SUB CONNECTORS**  
**CONEC SlimCon with signal contacts & high power contacts 20 A**

Solder pin straight  
 Precision machined contacts

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm



No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
7W2	75 (UI) / 5 (CSA VDE)	20	250	3	15-007103	15-007233

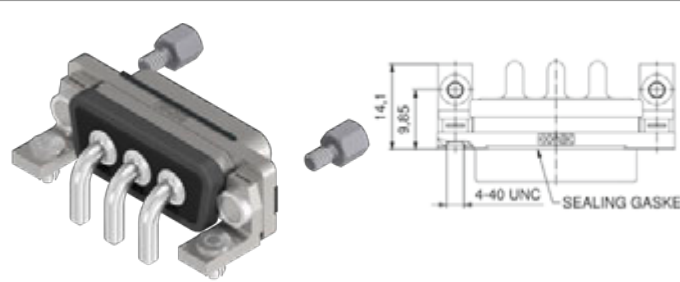
One-piece zinc die-cast nickel plated shell  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Quality class 1 (C) = 500 mating cycles



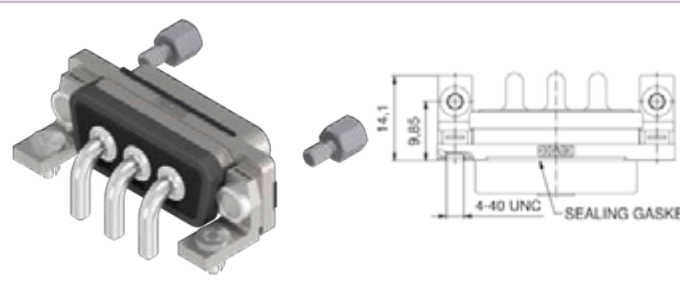
**IP67 COMBINATION D-SUB CONNECTORS  
CONEC SlimCon with high power contacts 20 A**

Solder pin angled  
Precision machined contacts, metal bracket

Mounting bracket PCB clip

	No. of poles	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	3W3	20	250	3	15-007353	15-007483
5W5				15-007363	15-007493	

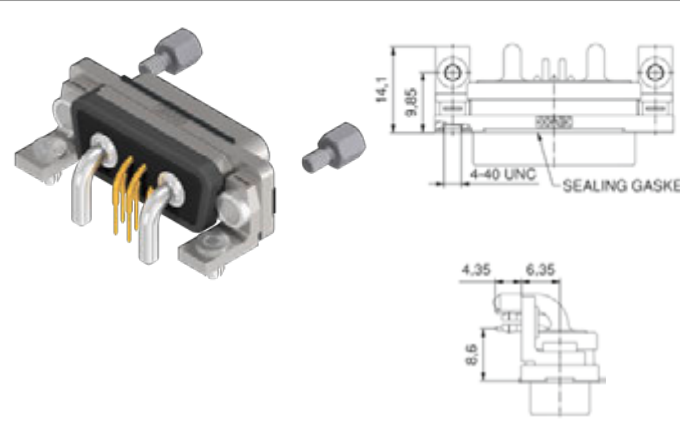
Mounting bracket PCB clip, coded version

	No. of poles	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	2W2C	20	250	3	15-007333	
3W3C				15-007343	15-007483	

**IP67 COMBINATION D-SUB CONNECTORS  
CONEC SlimCon with signal contacts & high power contacts 20 A**

Solder pin angled, .338"/8.6 mm  
Precision machined contacts, metal bracket

Mounting bracket PCB clip

	No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	7W2	75 (UI) / 5 (CSA VDE)	20	250	3	15-007373	15-007503


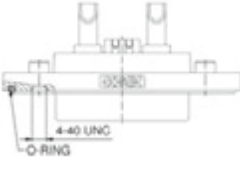
One-piece zinc die-cast nickel plated shell  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Quality class 1 (C) = 500 mating cycles

One-piece zinc die-cast nickel plated shell  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Quality class 1 (C) = 500 mating cycles

**IP67 COMBINATION D-SUB CONNECTORS**  
Solid Body with signal & high power contacts 20 A

Solder cup straight  
Precision machined contacts, AWG 20 and AWG 12-14


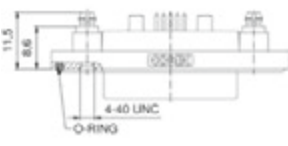
4-40 UNC threaded insert

Part No. Socket contact	Part No. Plug contact	Quality class	Working voltage [V]	Current rating high power contacts [A]	Current rating signal contacts [A]	No. of poles	4-40 UNC threaded insert	
							Image	Diagram
15-005063	15-005193	3	250	20	75 (UL) / 5 (CSA VDE)		 	5W1
15-001103	15-004643							7W2
15-005073	15-005203							11W1
15-005083	15-005213							9W4
15-004563	15-004553							13W3
15-004453	15-004543							17W2
15-005093	15-005223							21W1
15-005103	15-005233							13W6
15-005113	15-005243							17W5
15-005123	15-005253							21WA4
15-005133	15-005263							25W3
15-005143	15-005273							27W2
15-005153	15-005283							24W7
15-005163	15-005293							36W4
15-005173	15-005303							43W2
15-005183	15-005313							47W1

One-piece zinc die-cast nickel plated shell  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Quality class 1 (C) = 500 mating cycles

Solder pin straight  
Precision machined contacts

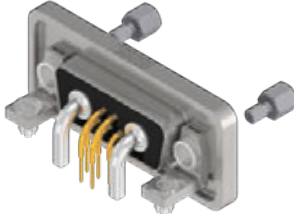
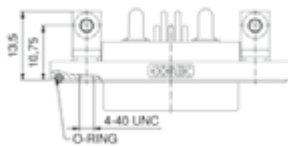
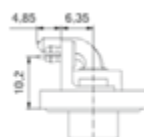
4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

Part No. Socket contact	Part No. Plug contact	Quality class	Working voltage [V]	Current rating high power contacts [A]	Current rating signal contacts [A]	No. of poles	4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm	
							Image	Diagram
15-005323	15-005473	3	250	20	75 (UL) / 5 (CSA VDE)		 	5W1
15-001823	15-001863							7W2
15-005333	15-005483							11W1
15-005343	15-005493							9W4
15-005353	15-005503							13W3
15-005363	15-005513							17W2
15-005373	15-005523							21W1
15-005383	15-005533							13W6
15-005393	15-005543							17W5
15-005403	15-005553							21WA4
15-005413	15-005563							25W3
15-005423	15-005573							27W2
15-005433	15-005583							24W7
15-005443	15-005593							36W4
15-005453	15-005603							43W2
15-005463	15-005613							47W1

**IP67 COMBINATION D-SUB CONNECTORS**  
Solid Body with signal & high power contacts 20 A

Solder pin angled, .402"/10.2 mm  
Precision machined contacts, metal bracket

Mounting bracket PCB clip

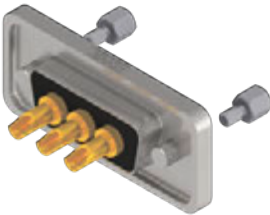
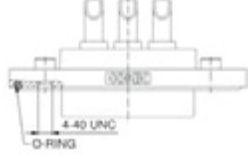
Part No. Socket contact	Part No. Plug contact	Quality class	Working voltage [V]	Current rating high power contacts [A]	Current rating signal contacts [A]	No. of poles	Mounting bracket PCB clip	
							Image	Dimensions
15-005623	15-005763	3	250	20	75 (UL) / 5 (CSA VDE)		  	5W1
15-001463	15-001503							7W2
15-005633	15-005773							11W1
15-005643	15-005783							9W4
15-005653	15-005793							13W3
15-005663	15-002323							17W2
15-005673	15-005803							21W1
15-005683	15-005813							13W6
15-005693	15-005823							17W5
15-005703	15-005833							21WA4
15-005713	15-002333							25W3
15-005723	15-005843							27W2
15-005733	15-005853							24W7
15-005743	15-002293							36W4
15-004593	15-005863							43W2
15-005753	15-005873							47W1

One-piece zinc die-cast nickel plated shell  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Quality class 1 (C) = 500 mating cycles

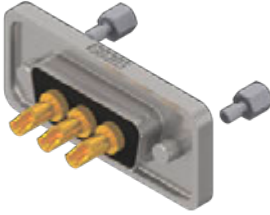
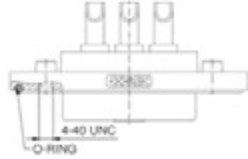
**IP67 COMBINATION D-SUB CONNECTORS**  
Solid Body with high power contacts 20 A

Solder cup straight  
Precision machined contacts, AWG 12-14

4-40 UNC threaded insert

Part No. Socket contact	Part No. Plug contact	Quality class	Working voltage [V]	Current rating high power contacts [A]	No. of poles	4-40 UNC threaded insert	
						Image	Dimensions
15-001083	15-001123	3	250	20		 	3W3
15-001093	15-001133						5W5
15-001613	15-001653						8W8

4-40 UNC threaded insert, coded version

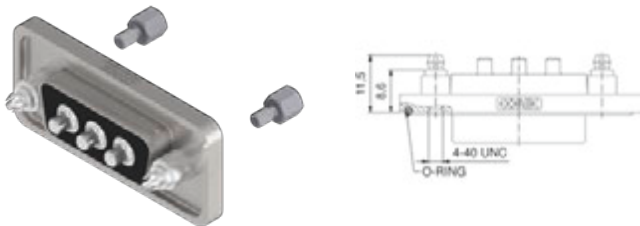
Part No. Socket contact	Part No. Plug contact	Quality class	Working voltage [V]	Current rating high power contacts [A]	No. of poles	4-40 UNC threaded insert, coded version	
						Image	Dimensions
15-001063		3	250	20		 	2W2C
15-001073	15-001113						3W3C

One-piece zinc die-cast nickel plated shell  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Quality class 1 (C) = 500 mating cycles

**IP67 COMBINATION D-SUB CONNECTORS**  
Solid Body with high power contacts 20 A

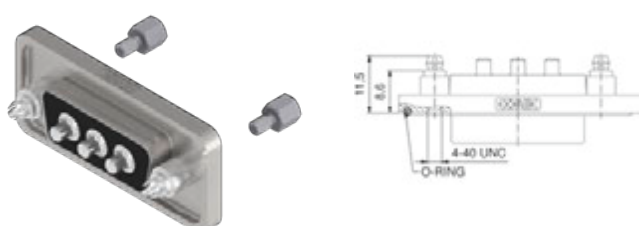
Solder pin straight  
Precision machined contacts

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

	No. of poles	Current rating high power contacts [A]	Betriebsspannung [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	3W3				15-001803	15-001843
	5W5	20	250	3	15-001813	15-001853
	8W8				15-002023	

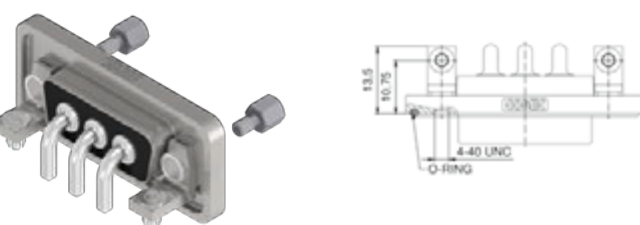
One-piece zinc die-cast nickel plated shell  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Quality class 1 (C) = 500 mating cycles

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

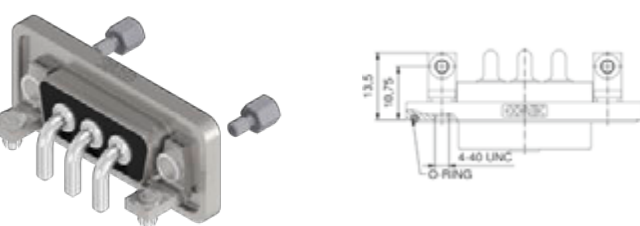
	No. of poles	Current rating high power contacts [A]	Betriebsspannung [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	8W8				15-001783	15-001833
	3W3C	20	250	3	15-001793	15-005883

Solder pin angled  
Precision machined contacts, metal bracket

Mounting bracket PCB clip

	No. of poles	Current rating high power contacts [A]	Betriebsspannung [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	3W3				15-001443	15-001483
	5W5	20	250	3	15-001453	15-001493
	8W8				15-001963	15-001993

Mounting bracket PCB clip

	No. of poles	Current rating high power contacts [A]	Betriebsspannung [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	2W2C				15-001423	
	3W3C	20	250	3	15-001433	15-001473

**IP67 COMBINATION D-SUB CONNECTORS**  
Solid Body with signal & high power contacts 20 A

**Solder cup straight**  
Precision machined contacts, AWG 12-14

4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15W4	3 (UL, VDE) / 2.5 (CSA)	20	60	3	15-005893	15-005923	
	19W1					15-005903	15-005933	
	45W2					15-005913	15-005943	

One-piece zinc die-cast nickel plated shell  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Quality class 1 (C) = 500 mating cycles

**Solder pin straight**  
Precision machined contacts

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm		No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15W4	3 (UL, VDE) / 2.5 (CSA)	20	60	3	15-005953	15-005983	
	19W1					15-005963	15-005993	
	45W2					15-005973	15-006003	

**Solder pin angled**  
Precision machined contacts, metal bracket

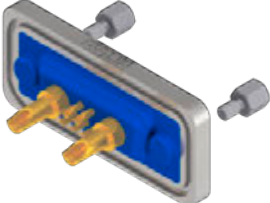
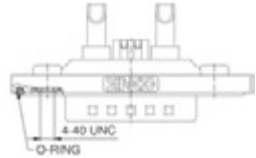
Mounting bracket PCB clip

Mounting bracket PCB clip		No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15W4	3 (UL, VDE) / 2.5 (CSA)	20	60	3	15-006013	15-006043	
	19W1					15-006023	15-006053	
	45W2					15-006033	15-006063	

## IP67 COMBINATION D-SUB CONNECTORS With signal & high power contacts 10 A

Solder cup  
Precision machined contacts, AWG 20

4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UI) / 5 (CSA, VDE)	10	250	E202784	3	6005W1SAM61 B30X	6005W1PAM61 B30X	
	7W2						6007W2SAM61 B30X	6007W2PAM61 B30X	
	11W1						6011W1SAM61 B30X	6011W1PAM61 B30X	
	9W4						6009W4SAM61 B30X	6009W4PAM61 B30X	
	13W3						6013W3SAM61 B30X	6013W3PAM61 B30X	
	17W2						6017W2SAM61 B30X	6017W2PAM61 B30X	
	21W1						6021W1SAM61 B30X	6021W1PAM61 B30X	
	13W6						6013W6SAM61 B30X	6013W6PAM61 B30X	
	17W5						6017W5SAM61 B30X	6017W5PAM61 B30X	
	21WA4						621WA4SAM61 B30X	621WA4PAM61 B30X	
	25W3						6025W3SAM61 B30X	6025W3PAM61 B30X	
	27W2						6027W2SAM61 B30X	6027W2PAM61 B30X	
	24W7						6024W7SAM61 B30X	6024W7PAM61 B30X	
	36W4						6036W4SAM61 B30X	6036W4PAM61 B30X	
	43W2						6043W2SAM61 B30X	6043W2PAM61 B30X	
	47W1						6047W1SAM61 B30X	6047W1PAM61 B30X	

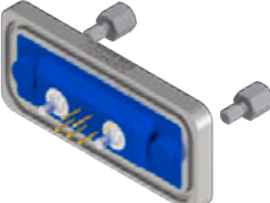
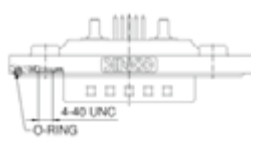
Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

For other Power contacts select code from spread sheet		
Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A

## IP67 COMBINATION D-SUB CONNECTORS With signal & high power contacts 20 A

Solder pin straight  
Precision machined contacts

4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UI) / 5 (CSA, VDE)	20	250	E202784	3	6005W1SAR68B30X	6005W1PAR68B30X	
	7W2						6007W2SAR68B30X	6007W2PAR68B30X	
	11W1						6011W1SAR68B30X	6011W1PAR68B30X	
	9W4						6009W4SAR68B30X	6009W4PAR68B30X	
	13W3						6013W3SAR68B30X	6013W3PAR68B30X	
	17W2						6017W2SAR68B30X	6017W2PAR68B30X	
	21W1						6021W1SAR68B30X	6021W1PAR68B30X	
	13W6						6013W6SAR68B30X	6013W6PAR68B30X	
	17W5						6017W5SAR68B30X	6017W5PAR68B30X	
	21WA4						621WA4SAR68B30X	621WA4PAR68B30X	
	25W3						6025W3SAR68B30X	6025W3PAR68B30X	
	27W2						6027W2SAR68B30X	6027W2PAR68B30X	
	24W7						6024W7SAR68B30X	6024W7PAR68B30X	
	36W4						6036W4SAR68B30X	6036W4PAR68B30X	
	43W2						6043W2SAR68B30X	6043W2PAR68B30X	
	47W1						6047W1SAR68B30X	6047W1PAR68B30X	

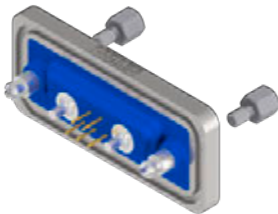
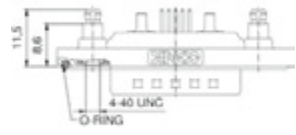
Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

## IP67 COMBINATION D-SUB CONNECTORS With signal & high power contacts 20 A

Solder pin straight  
Precision machined contacts, threaded rear spacer with PCB clip

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm		No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA VDE)	20	250	E202784	3	6005W1SAR68E20X	6005W1PAR68E20X	
	7W2					3	6007W2SAR68E20X	6007W2PAR68E20X	
	11W1					3	6011W1SAR68E20X	6011W1PAR68E20X	
	9W4					3	6009W4SAR68E20X	6009W4PAR68E20X	
	13W3					3	6013W3SAR68E20X	6013W3PAR68E20X	
	17W2					3	6017W2SAR68E20X	6017W2PAR68E20X	
	21W1					3	6021W1SAR68E20X	6021W1PAR68E20X	
	13W6					3	6013W6SAR68E20X	6013W6PAR68E20X	
	17W5					3	6017W5SAR68E20X	6017W5PAR68E20X	
	21WA4					3	621WA4SAR68E20X	621WA4PAR68E20X	
	25W3					3	6025W3SAR68E20X	6025W3PAR68E20X	
	27W2					3	6027W2SAR68E20X	6027W2PAR68E20X	
	24W7					3	6024W7SAR68E20X	6024W7PAR68E20X	
	36W4					3	6036W4SAR68E20X	6036W4PAR68E20X	
	43W2					3	6043W2SAR68E20X	6043W2PAR68E20X	
	47W1					3	6047W1SAR68E20X	6047W1PAR68E20X	

For other Power contacts select code from spread sheet

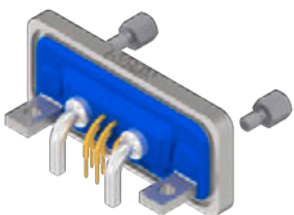
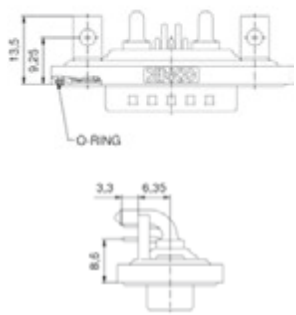
Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## IP67 COMBINATION D-SUB CONNECTORS With signal & high power contacts 15 A

Solder pin angled, .338"/8.6 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA VDE)	15	250	E202784	3	6005W1SAT59S20X	6005W1PAT59S20X	
	7W2					3	6007W2SAT59S20X	6007W2PAT59S20X	
	11W1					3	6011W1SAT59S20X	6011W1PAT59S20X	
	9W4					3	6009W4SAT59S20X	6009W4PAT59S20X	
	13W3					3	6013W3SAT59S20X	6013W3PAT59S20X	
	17W2					3	6017W2SAT59S20X	6017W2PAT59S20X	
	21W1					3	6021W1SAT59S20X	6021W1PAT59S20X	
	13W6					3	6013W6SAT59S20X	6013W6PAT59S20X	
	17W5					3	6017W5SAT59S20X	6017W5PAT59S20X	
	21WA4					3	621WA4SAT59S20X	621WA4PAT59S20X	
	25W3					3	6025W3SAT59S20X	6025W3PAT59S20X	
	27W2					3	6027W2SAT59S20X	6027W2PAT59S20X	
	24W7					3	6024W7SAT81S20X	6024W7PAT81S20X	
	36W4					3	6036W4SAT81S20X	6036W4PAT81S20X	
	43W2					3	6043W2SAT81S20X	6043W2PAT81S20X	
	47W1					3	6047W1SAT81S20X	6047W1PAT81S20X	

For other Power contacts select code from spread sheet

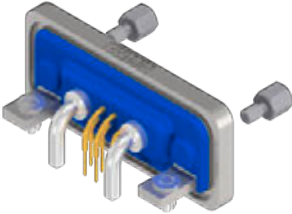
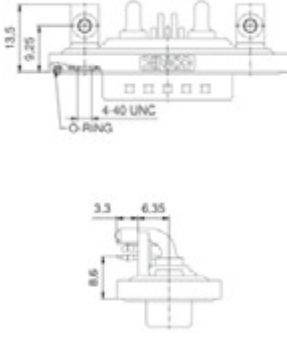
Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75
81	5	20 A	2.85
82	5	30 A	3.20
85	5	30 A	3.20
77	5	40 A	3.75

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## IP67 COMBINATION D-SUB CONNECTORS With signal & high power contacts 15 A

Solder pin angled, .338"/8.6 mm  
Precision machined contacts, metal bracket with PCB clip

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

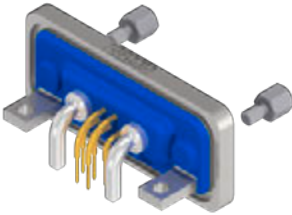
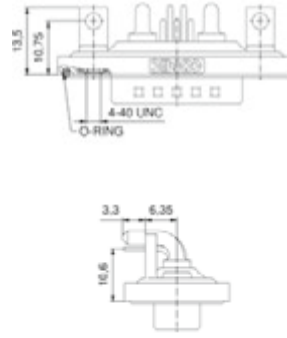
Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		5W1	75 (UL) / 5 (CSA VDE)	15	250	E202784	3	6005W1SAT59S40X	6005W1PAT59S40X
		7W2						6007W2SAT59S40X	6007W2PAT59S40X
		11W1						6011W1SAT59S40X	6011W1PAT59S40X
		9W4						6009W4SAT59S40X	6009W4PAT59S40X
		13W3						6013W3SAT59S40X	6013W3PAT59S40X
		17W2						6017W2SAT59S40X	6017W2PAT59S40X
		21W1						6021W1SAT59S40X	6021W1PAT59S40X
		13W6						6013W6SAT59S40X	6013W6PAT59S40X
		17W5						6017W5SAT59S40X	6017W5PAT59S40X
		21WA4						621WA4SAT59S40X	621WA4PAT59S40X
		25W3						6025W3SAT59S40X	6025W3PAT59S40X
		27W2						6027W2SAT59S40X	6027W2PAT59S40X
		24W7						6024W7SAT81S40X	6024W7PAT81S40X
		36W4						6036W4SAT81S40X	6036W4PAT81S40X
		43W2						6043W2SAT81S40X	6043W2PAT81S40X
		47W1						6047W1SAT81S40X	6047W1PAT81S40X

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

For other Power contacts select code from spread sheet			
Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75
81	5	20 A	2.85
82	5	30 A	3.20
85	5	30 A	3.20
77	5	40 A	3.75

Solder pin angled, .417"/10.6 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		5W1	75 (UL) / 5 (CSA VDE)	15	250	E202784	3	6005W1SAU59R20X	6005W1PAU59R20X
		7W2						6007W2SAU59R20X	6007W2PAU59R20X
		11W1						6011W1SAU59R20X	6011W1PAU59R20X
		9W4						6009W4SAU59R20X	6009W4PAU59R20X
		13W3						6013W3SAU59R20X	6013W3PAU59R20X
		17W2						6017W2SAU59R20X	6017W2PAU59R20X
		21W1						6021W1SAU59R20X	6021W1PAU59R20X
		13W6						6013W6SAU59R20X	6013W6PAU59R20X
		17W5						6017W5SAU59R20X	6017W5PAU59R20X
		21WA4						621WA4SAU59R20X	621WA4PAU59R20X
		25W3						6025W3SAU59R20X	6025W3PAU59R20X
		27W2						6027W2SAU59R20X	6027W2PAU59R20X
		24W7						6024W7SAU81R20X	6024W7PAU81R20X
		36W4						6036W4SAU81R20X	6036W4PAU81R20X
		43W2						6043W2SAU81R20X	6043W2PAU81R20X
		47W1						6047W1SAU81R20X	6047W1PAU81R20X

For other Power contacts select code from spread sheet			
Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75
81	5	20 A	2.85
82	5	30 A	3.20
85	5	30 A	3.20
77	5	40 A	3.75



**IP67 COMBINATION D-SUB CONNECTORS**  
With signal & high power contacts 15 A

Solder pin angled, .417" / 10.6 mm  
Precision machined contacts, metal bracket with PCB clip

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
5W1	75 (UL) / 5 (CSA VDE)	15	250	E202784	3	6005W1SAU59R40X	6005W1PAU59R40X
7W2						6007W2SAU59R40X	6007W2PAU59R40X
11W1						6011W1SAU59R40X	6011W1PAU59R40X
9W4						6009W4SAU59R40X	6009W4PAU59R40X
13W3						6013W3SAU59R40X	6013W3PAU59R40X
17W2						6017W2SAU59R40X	6017W2PAU59R40X
21W1						6021W1SAU59R40X	6021W1PAU59R40X
13W6						6013W6SAU59R40X	6013W6PAU59R40X
17W5						6017W5SAU59R40X	6017W5PAU59R40X
21WA4						621WA4SAU59R40X	621WA4PAU59R40X
25W3						6025W3SAU59R40X	6025W3PAU59R40X
27W2						6027W2SAU59R40X	6027W2PAU59R40X
24W7						6024W7SAU81R40X	6024W7PAU81R40X
36W4						6036W4SAU81R40X	6036W4PAU81R40X
43W2						6043W2SAU81R40X	6043W2PAU81R40X
47W1						6047W1SAU81R40X	6047W1PAU81R40X

For other Power contacts select code from spread sheet			
Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75
81	5	20 A	2.85
82	5	30 A	3.20
85	5	30 A	3.20
77	5	40 A	3.75

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**IP67 COMBINATION D-SUB CONNECTORS**  
With signal & high power contacts 15 A

Solder pin angled, .610" / 15.5 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
5W1	75 (UL) / 5 (CSA VDE)	15	250	E202784	3	6005W1SAZ59S20X	6005W1PAZ59S20X
7W2						6007W2SAZ59S20X	6007W2PAZ59S20X
11W1						6011W1SAZ59S20X	6011W1PAZ59S20X
9W4						6009W4SAZ59S20X	6009W4PAZ59S20X
13W3						6013W3SAZ59S20X	6013W3PAZ59S20X
17W2						6017W2SAZ59S20X	6017W2PAZ59S20X
21W1						6021W1SAZ59S20X	6021W1PAZ59S20X
13W6						6013W6SAZ59S20X	6013W6PAZ59S20X
17W5						6017W5SAZ59S20X	6017W5PAZ59S20X
21WA4						621WA4SAZ59S20X	621WA4PAZ59S20X
25W3						6025W3SAZ59S20X	6025W3PAZ59S20X
27W2						6027W2SAZ59S20X	6027W2PAZ59S20X

For other Power contacts select code from spread sheet			
Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75
81	5	20 A	2.85
82	5	30 A	3.20
85	5	30 A	3.20
77	5	40 A	3.75

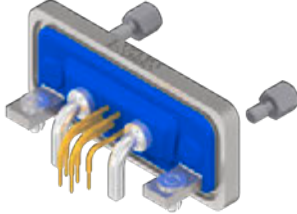
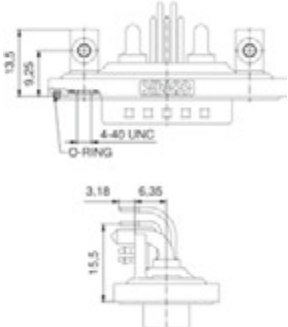
Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread  
• Shellsize 5 on request

## IP67 COMBINATION D-SUB CONNECTORS

With signal & high power contacts 15 A

Solder pin angled, .610" / 15.5 mm  
Precision machined contacts, metal bracket with PCB clip

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																																							
  <table border="1"> <thead> <tr> <th colspan="4">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Shellsize</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr><td>59</td><td>1-4</td><td>15 A</td><td>1.90</td></tr> <tr><td>73</td><td>1-4</td><td>20 A</td><td>2.85</td></tr> <tr><td>74</td><td>1-4</td><td>30 A</td><td>3.20</td></tr> <tr><td>75</td><td>1-4</td><td>40 A</td><td>3.75</td></tr> <tr><td>81</td><td>5</td><td>20 A</td><td>2.85</td></tr> <tr><td>82</td><td>5</td><td>30 A</td><td>3.20</td></tr> <tr><td>85</td><td>5</td><td>30 A</td><td>3.20</td></tr> <tr><td>77</td><td>5</td><td>40 A</td><td>3.75</td></tr> </tbody> </table>	For other Power contacts select code from spread sheet				Code	Shellsize	Current rating	Diameter solder pin	59	1-4	15 A	1.90	73	1-4	20 A	2.85	74	1-4	30 A	3.20	75	1-4	40 A	3.75	81	5	20 A	2.85	82	5	30 A	3.20	85	5	30 A	3.20	77	5	40 A	3.75	5W1	75 (UL) / 5 (CSA VDE)	15	250	E202784	3	6005W1SAZ59S40X	6005W1PAZ59S40X
	For other Power contacts select code from spread sheet																																															
	Code	Shellsize	Current rating	Diameter solder pin																																												
	59	1-4	15 A	1.90																																												
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	77	5	40 A	3.75																																												
	7W2	6007W2SAZ59S40X	6007W2PAZ59S40X																																													
	11W1	6011W1SAZ59S40X	6011W1PAZ59S40X																																													
9W4	6009W4SAZ59S40X	6009W4PAZ59S40X																																														
13W3	6013W3SAZ59S40X	6013W3PAZ59S40X																																														
17W2	6017W2SAZ59S40X	6017W2PAZ59S40X																																														
21W1	6021W1SAZ59S40X	6021W1PAZ59S40X																																														
13W6	6013W6SAZ59S40X	6013W6PAZ59S40X																																														
17W5	6017W5SAZ59S40X	6017W5PAZ59S40X																																														
21WA4	621WA4SAZ59S40X	621WA4PAZ59S40X																																														
25W3	6025W3SAZ59S40X	6025W3PAZ59S40X																																														
27W2	6027W2SAZ59S40X	6027W2PAZ59S40X																																														

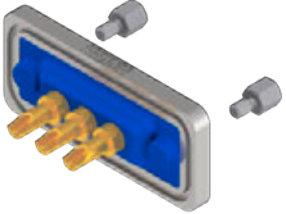
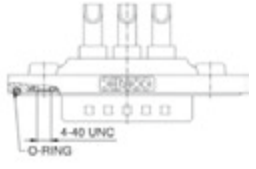
Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread  
• Shellsize 5 on request

## IP67 COMBINATION D-SUB CONNECTORS

With high power contacts 10 A

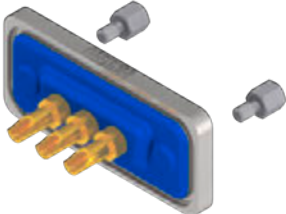
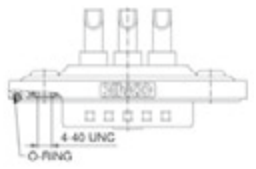
Solder cup straight  
Precision machined contacts

4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact											
  <table border="1"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>AWG</th> <th>Current rating</th> </tr> </thead> <tbody> <tr><td>61</td><td>16-20</td><td>10 A</td></tr> <tr><td>62</td><td>12-14</td><td>20 A</td></tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	AWG	Current rating	61	16-20	10 A	62	12-14	20 A	3W3	10	250	E202784	3	6003W3SXX61B30X	6003W3PXX61B30X
	For other Power contacts select code from spread sheet																		
	Code	AWG	Current rating																
61	16-20	10 A																	
62	12-14	20 A																	
5W5	6005W5SXX61B30X	6005W5PXX61B30X																	
8W8	6008W8SXX61B30X	6008W8PXX61B30X																	

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

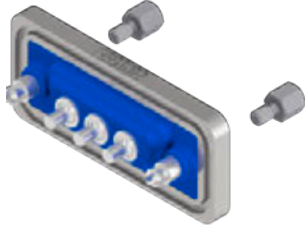
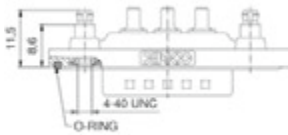
4-40 UNC threaded insert, coded version

4-40 UNC threaded insert, coded version		No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact											
  <table border="1"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>AWG</th> <th>Current rating</th> </tr> </thead> <tbody> <tr><td>61</td><td>16-20</td><td>10 A</td></tr> <tr><td>62</td><td>12-14</td><td>20 A</td></tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	AWG	Current rating	61	16-20	10 A	62	12-14	20 A	2W2C	10	250	E202784	3	602W2CSXX61B30X	602W2CPXX61B30X
	For other Power contacts select code from spread sheet																		
	Code	AWG	Current rating																
61	16-20	10 A																	
62	12-14	20 A																	
3W3C	603W3CSXX61B30X	603W3CPXX61B30X																	

## IP67 COMBINATION D-SUB CONNECTORS With high power contacts 10 A

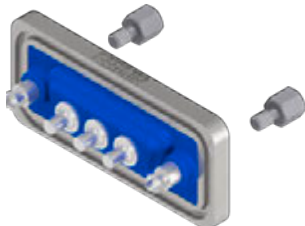
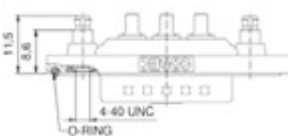
Solder pin straight  
Precision machined contacts

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm		No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																			
  <table border="1" data-bbox="111 638 470 840"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr> <td>68</td> <td>20 A</td> <td>1.95</td> </tr> <tr> <td>69</td> <td>20 A</td> <td>2.60</td> </tr> <tr> <td>70</td> <td>20 A</td> <td>2.85</td> </tr> <tr> <td>71</td> <td>30 A</td> <td>3.18</td> </tr> <tr> <td>72</td> <td>40 A</td> <td>3.75</td> </tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	Current rating	Diameter solder pin	68	20 A	1.95	69	20 A	2.60	70	20 A	2.85	71	30 A	3.18	72	40 A	3.75	3W3	250	E202784	3	6003W3SXX68E20X	6003W3PXX68E20X
	For other Power contacts select code from spread sheet																										
	Code	Current rating	Diameter solder pin																								
68	20 A	1.95																									
69	20 A	2.60																									
70	20 A	2.85																									
71	30 A	3.18																									
72	40 A	3.75																									
5W5	20	250	6005W5SXX68E20X	6005W5PXX68E20X																							
8W8	250	6008W8SXX68E20X	6008W8PXX68E20X																								

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm, coded version

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm, coded version		No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																			
  <table border="1" data-bbox="111 1164 470 1366"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr> <td>68</td> <td>20 A</td> <td>1.95</td> </tr> <tr> <td>69</td> <td>20 A</td> <td>2.60</td> </tr> <tr> <td>70</td> <td>20 A</td> <td>2.85</td> </tr> <tr> <td>71</td> <td>30 A</td> <td>3.18</td> </tr> <tr> <td>72</td> <td>40 A</td> <td>3.75</td> </tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	Current rating	Diameter solder pin	68	20 A	1.95	69	20 A	2.60	70	20 A	2.85	71	30 A	3.18	72	40 A	3.75	2W2C	250	E202784	3	602W2CSXX68E20X	602W2CPXX68E20X
	For other Power contacts select code from spread sheet																										
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71	30 A	3.18																									
72	40 A	3.75																									
3W3C	250	603W3CSXX68E20X	603W3CPXX68E20X																								

## IP67 COMBINATION D-SUB CONNECTORS With high power contacts 15 A

Solder pin angled  
Precision machined contacts, metal bracket

### 4-40 UNC threaded insert

No. of poles		Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
3W3		15	250	E202784	3	6003W3SXX59S20X	6003W3PXX59S20X
5W5		15	250			6005W5SXX59S20X	6005W5PXX59S20X
8W8		15	250			6008W8SXX59S20X	6008W8PXX59S20X
3W3		250	250	E202784	3	6003W3SXX59S20X	6003W3PXX59S20X
5W5		250	250			6005W5SXX59S20X	6005W5PXX59S20X
8W8		250	250			6008W8SXX59S20X	6008W8PXX59S20X

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

For other Power contacts select code from spread sheet

Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75

### 4-40 UNC threaded insert, coded version

No. of poles		Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C		15	250	E202784	3	602W2CSXX59S20X	602W2CPXX59S20X
3W3C		15	250			603W3CSXX59S20X	603W3CPXX59S20X
3W3C		250	250			603W3CSXX59S20X	603W3CPXX59S20X

For other Power contacts select code from spread sheet

Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75

Solder pin angled  
Precision machined contacts, metal bracket with PCB clip

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert

No. of poles		Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
3W3		15	250	E202784	3	6003W3SXX59S40X	6003W3PXX59S40X
5W5		15	250			6005W5SXX59S40X	6005W5PXX59S40X
8W8		15	250			6008W8SXX59S40X	6008W8PXX59S40X
3W3		250	250	E202784	3	6003W3SXX59S40X	6003W3PXX59S40X
5W5		250	250			6005W5SXX59S40X	6005W5PXX59S40X
8W8		250	250			6008W8SXX59S40X	6008W8PXX59S40X

For other Power contacts select code from spread sheet

Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75

**IP67 COMBINATION D-SUB CONNECTORS**  
With high power contacts 15 A

Solder pin angled  
Precision machined contacts, metal bracket with PCB clip

Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded Version

No. of poles		Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C		15	250	E202784	3	602W2CSXX59S40X	602W2CPXX59S40X
3W3C							

For other Power contacts select code from spread sheet			
Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**IP67 COMBINATION D-SUB CONNECTORS**  
Without frame, with signal & high power contacts 20 A

Solder cup straight  
Precision machined contacts, design for use with hood

Through-hole Ø 3 mm

No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact		
9W4	75 (UI) / 5 (CSA VDE)	10	250	E202784	3	4005W1SAM61A10X	4005W1PAM61A10X		
7W2								4007W2SAM61A10X	4007W2PAM61A10X
17W5								4011W1SAM61A10X	4011W1PAM61A10X
9W4								4009W4SAM61A10X	4009W4PAM61A10X
21W1								4013W3SAM61A10X	4013W3PAM61A10X
24W7								4017W2SAM61A10X	4017W2PAM61A10X
27W2								4021W1SAM61A10X	4021W1PAM61A10X
24W7								4013W6SAM61A10X	4013W6PAM61A10X
25W3								4017W5SAM61A10X	4017W5PAM61A10X
21WA4								421WA4SAM61A10X	421WA4PAM61A10X
43W2								4025W3SAM61A10X	4025W3PAM61A10X
47W1								4027W2SAM61A10X	4027W2PAM61A10X
36W4								4024W7SAM61A10X	4024W7PAM61A10X
21WA4								4036W4SAM61A10X	4036W4PAM61A10X
43W2								4043W2SAM61A10X	4043W2PAM61A10X
47W1								4047W1SAM61A10X	4047W1PAM61A10X

For other Power contacts select code from spread sheet		
Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles

**IP67 COMBINATION D-SUB CONNECTORS**  
Without frame, with high power contacts 10 A

Solder cup straight  
Precision machined contacts, design for use with hood

Through-hole Ø 3 mm

For other Power contacts select code from spread sheet		
Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A

No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
8W8		250	E202784	3	4003W3SXX61A10X	4003W3PXX61A10X
11W1	10	250			4005W5SXX61A10X	4005W5PXX61A10X
13W3		250			4008W8SXX61A10X	4008W8PXX61A10X

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles

Through-hole Ø 3 mm, coded version

For other Power contacts select code from spread sheet		
Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A

No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C		250	E202784	3	402W2CSXX61A10X	402W2CPXX61A10X
3W3C	10	250			403W3CSXX61A10X	403W3CPXX61A10X

**IP67 COMBINATION D-SUB CONNECTORS**  
Front panel mounting, with signal & high power contacts

Solder cup straight  
Precision machined contacts

Front spacer 4-40 UNC

For other Power contacts select code from spread sheet		
Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A

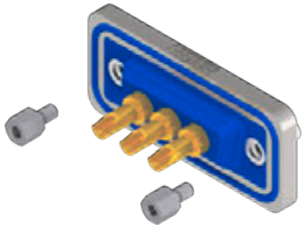
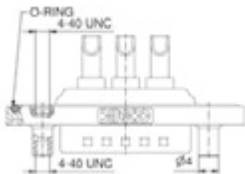
No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
5W1				E202784	3	6005W1SAM61B50X	6005W1PAM61B50X
7W2						6007W2SAM61B50X	6007W2PAM61B50X
11W1						6011W1SAM61B50X	6011W1PAM61B50X
9W4						6009W4SAM61B50X	6009W4PAM61B50X
13W3						6013W3SAM61B50X	6013W3PAM61B50X
17W2						6017W2SAM61B50X	6017W2PAM61B50X
21W1						6021W1SAM61B50X	6021W1PAM61B50X
13W6						6013W6SAM61B50X	6013W6PAM61B50X
17W5						6017W5SAM61B50X	6017W5PAM61B50X
21WA4						621WA4SAM61B50X	621WA4PAM61B50X
25W3						6025W3SAM61B50X	6025W3PAM61B50X
27W2						6027W2SAM61B50X	6027W2PAM61B50X
24W7						6024W7SAM61B50X	6024W7PAM61B50X
36W4						6036W4SAM61B50X	6036W4PAM61B50X
43W2						6043W2SAM61B50X	6043W2PAM61B50X
47W1						6047W1SAM61B50X	6047W1PAM61B50X

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**IP67 COMBINATION D-SUB CONNECTORS 20 A**  
Front panel mounting, with high power contacts

Solder cup straight  
Precision machined contacts

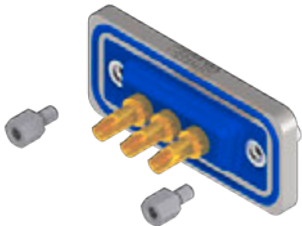
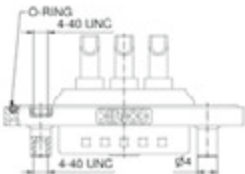
Front spacer 4-40 UNC

Front spacer 4-40 UNC		No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		3W3		250	E202784	3	6003W3SXX61 B50X	6003W3PXX61 B50X
		5W5	10	250			6005W5SXX61 B50X	6005W5PXX61 B50X
		8W8		250			6008W8SXX61 B50X	6008W8PXX61 B50X

For other Power contacts select code from spread sheet

Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A

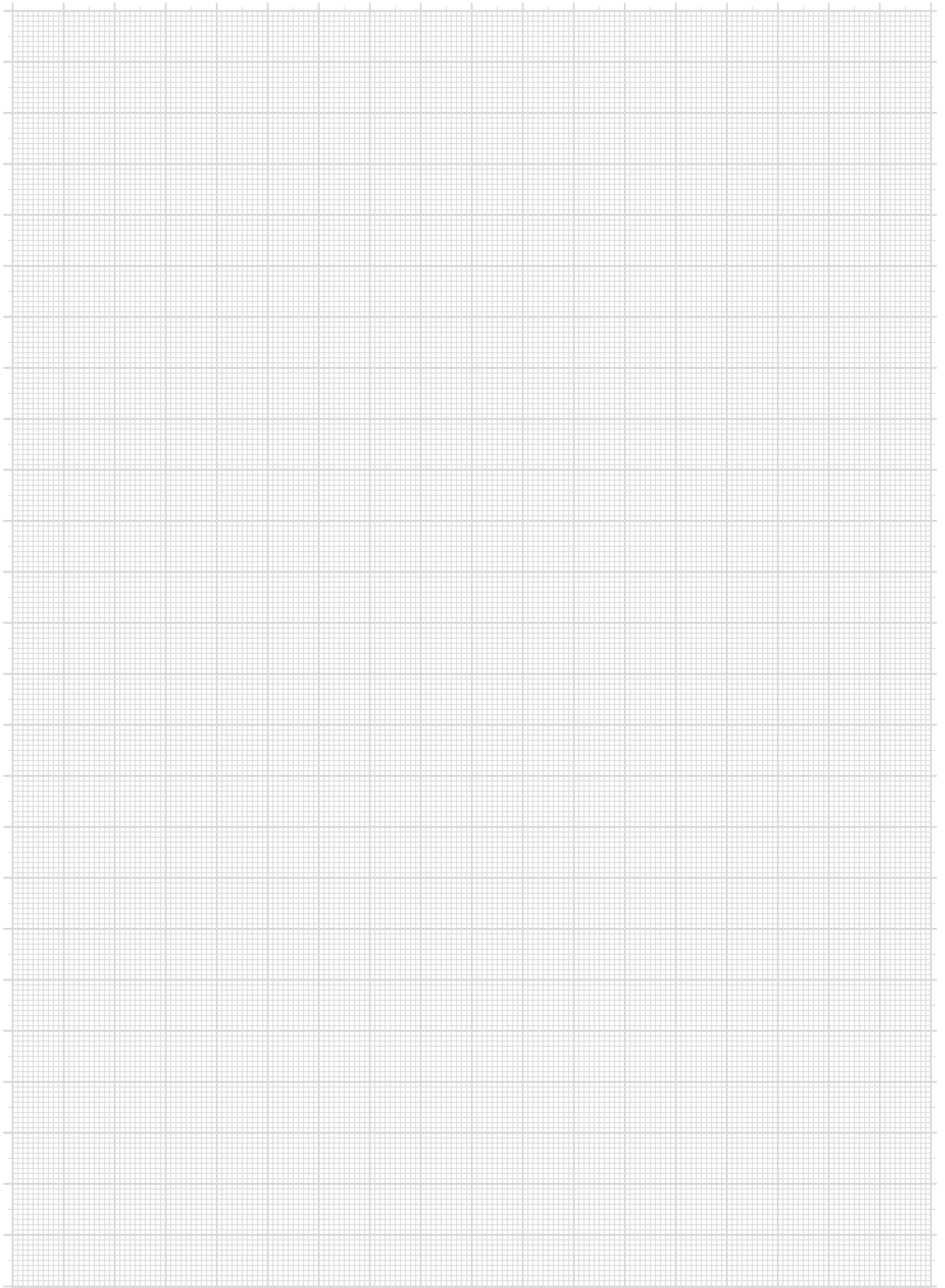
Front spacer 4-40 UNC, coded version

 		2W2C		250	E202784	3	602W2CSXX61 B50X	602W2CPXX61 B50X
			10				603W3CSXX61 B50X	603W3CPXX61 B50X
		3W3C		250			603W3CSXX61 B50X	603W3CPXX61 B50X

For other Power contacts select code from spread sheet

Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A

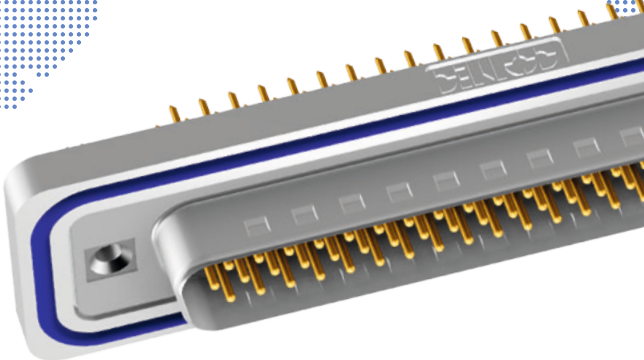
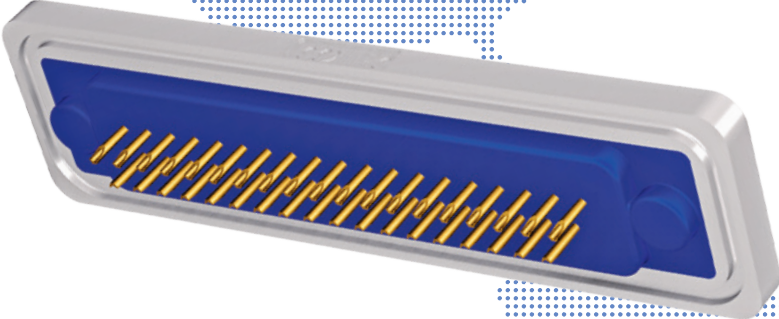
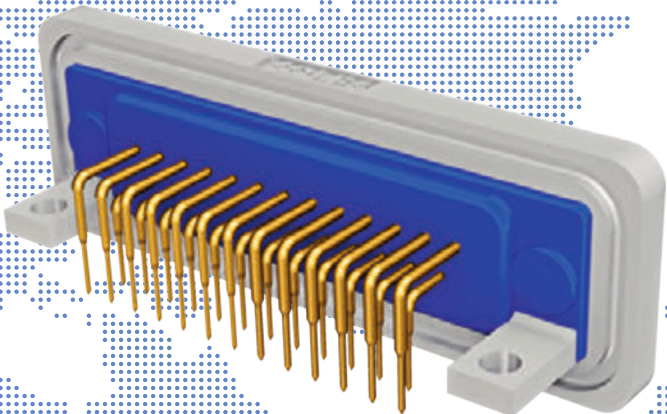
Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread





SECTION 8

# IP67 FILTER D-SUB CONNECTORS





## IP67 FILTER D-SUB CONNECTORS

### Part Number Creator

6 S T F 0 9 P A M 0 4 B 3 0 X

#### Product Line

- 4\* = Shell brass tin plated with plastic frame or without frame
- 6 = Shell brass tin plated with metal frame (Standard)  
(\*on request)

#### Variations

- STF = D-Subminiatur Standard filtered
- HDF = D-Subminiatur High Density filtered

#### No. of pos. for STF

- 09 = 09-pos.
- 15 = 15-pos.
- 25 = 25-pos.
- 37 = 37-pos.
- 50 = 50-pos.

#### No. of pos. for HDF

- 15 = 15-pos.
- 26 = 26-pos.
- 44 = 44-pos.
- 62 = 62-pos.
- 78 = 78-pos.

- P = Plug connector (Standard)  
(Socket connector on request)

#### Quality class / Plating code for contacts

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles
- C = Quality class 1 = 500 mating cycles

#### Termination

- M = Solder cup only for STF
- R = Solder pin, straight
- T = Solder pin, angled, 4.80 mm only for STF
- U = Solder pin, angled, 7.00 mm only for STF
- Z = Solder pin, angled, 11.80 mm only for STF
- Y = Solder pin, angled, 5.60 mm only for HDF

#### Capacitance

- 03 = 370 pF ± 20% tolerance
- 04 = 830 pF ± 20% tolerance
- 05\* = 1300 pF ± 20% tolerance \* not applicable for HDF

#### Mounting style

- A1 = Riveted through hole for cable mount / Shell without sealing frame
- B3 = 4-40 UNC threaded insert
- B5 = Threaded lock for 4-40 UNC front mounting
- E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063" / 1.60 mm
- S2 = Metal bracket 4-40 UNC threaded insert
- S4 = Metal bracket 4-40 UNC threaded insert and PCB clip
- R2 = Metal bracket 4-40 UNC threaded insert
- R4 = Metal bracket 4-40 UNC threaded insert and PCB clip

- OX = Standard

## IP67 FILTER D-SUB CONNECTORS

### Product specification

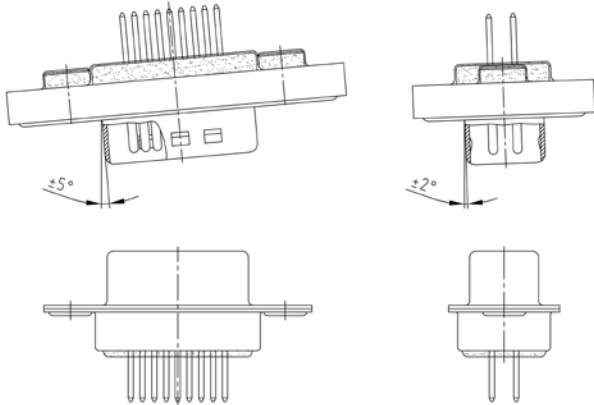
Basic material	IP67 Filter D-SUB Standard 9-, 15-, 25-, 37-, 50-pos.	IP67 Filter D-SUB High Density 15-, 26-, 44-, 62-pos.	IP67 Filter D-SUB SlimCon 9-, 15-, 25-pos.	
Contact	Copper alloy			
Contact plating	Gold over nickel			
Insulator	PBT GF UL94 V-0			
Shell	Brass tin plated		Zinc die-cast nickel plated	
Seal	O-Ring Silicone		Sealing Gasket Silicone or EMC	
<b>Technical Data</b>				
Dielectric with standing voltage	424 V DC	300 V DC	424 V DC	
Working voltage	100 V DC* *depending on isolation coordination refer to DIN VDE 0110 / IEC 664-1			
Voltage surge 10/700 $\mu$ s	300 V			
Current rating	7.5 A (UL) / 5 A (CSA, VDE)	3 A (UL, VDE) / 2,5 A (CSA)	5 A	
Contact resistance	max. 10 m $\Omega$ prior to stressing $\Delta$ R max. 10 m $\Omega$ after stressing per IEC 60807-2			
Insulation resistance	$\geq 1$ G $\Omega$			
Capacitor Values	370 pF $\pm$ 20 % 830 pF $\pm$ 20 % 1300 pF $\pm$ 20 %	370 pF $\pm$ 20 % 830 pF $\pm$ 20 %  other capacitor values on request	370 pF $\pm$ 20 % 820 pF $\pm$ 20 % 1200 pF $\pm$ 20 %	
Operating temperature	-25 °C bis/to +105 °C	-25 °C bis/to +85 °C	-40 °C bis/to +105 °C	
Humidity	40 °C / 85% Relative humidity			
Mating and unmating forces	9-pos. $\leq$ 30 N 15-pos. $\leq$ 50 N 25-pos. $\leq$ 83 N 37-pos. $\leq$ 123 N 50-pos. $\leq$ 167 N	15-pos. $\leq$ 50 N 26-pos. $\leq$ 84 N 44-pos. $\leq$ 120 N 67-pos. $\leq$ 170 N	9-pos. $\leq$ 30 N 15-pos. $\leq$ 50 N 25-pos. $\leq$ 83 N	
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles			
Recommended wavesolder parameters	Preheating		Solder terminal dipping parameters	
	max. temperature	duration (max.)	max. Solder bath temperature	max. terminal immersion time
IP67 Filter D-SUB Standard	100 °C	30 s	260 °C	5 s
IP67 Filter D-SUB High Density	100 °C	30 s	260 °C	5 s
IP67 Filter D-SUB SlimCon	150 °C	180 s	265 °C	8 s

Technical specifications are subject to change without notice

# IP67 FILTER D-SUB CONNECTORS

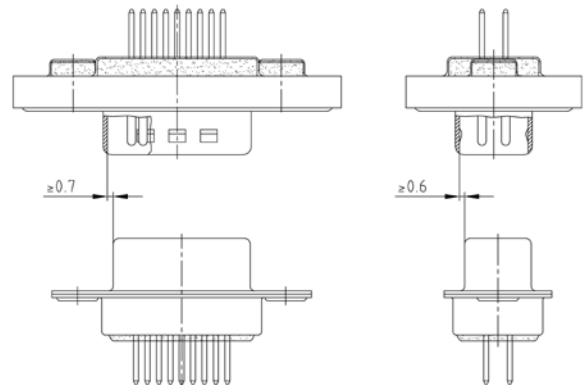
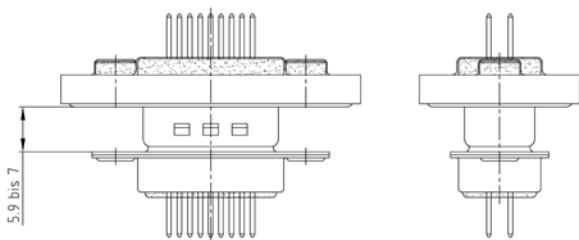
## Mating conditions

### Max. tilt angle for connector mating



### Range for safe contact

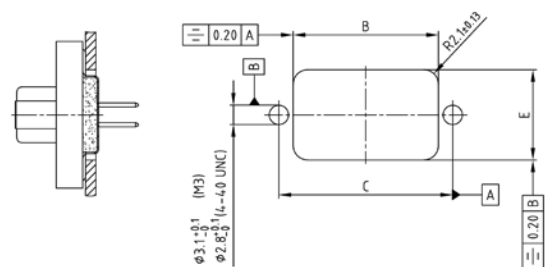
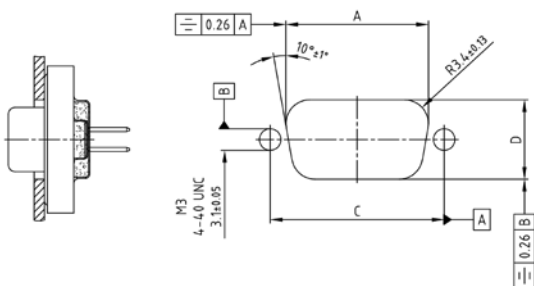
### Lock-in range



## Panel cut-out

### Rear panel mounting

### Front panel mounting



Shell size	A ± 0.1	B ± 0.1	C ± 0.1	D ± 0.1	E ± 0.1
9	20.50	20.90	25.00	11.40	13.00
15	28.80	29.20	33.30	11.40	13.00
25	42.50	42.90	47.04	11.40	13.00
37	59.10	59.40	63.50	11.40	13.00
50	56.30	57.00	61.10	14.10	15.80

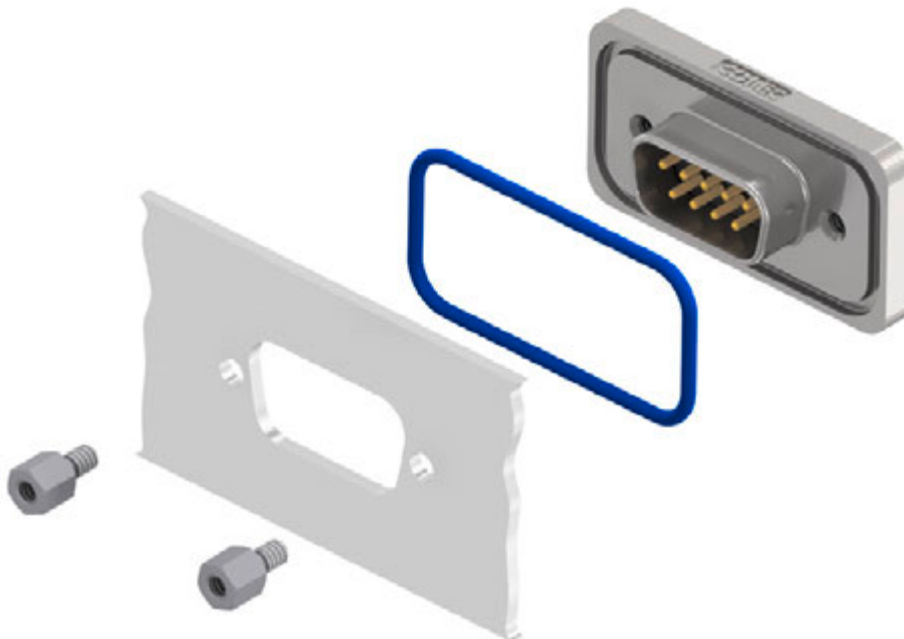
## IP67 FILTER D-SUB CONNECTORS

### Panel mounting

#### Front panel mounting



#### Back panel mounting

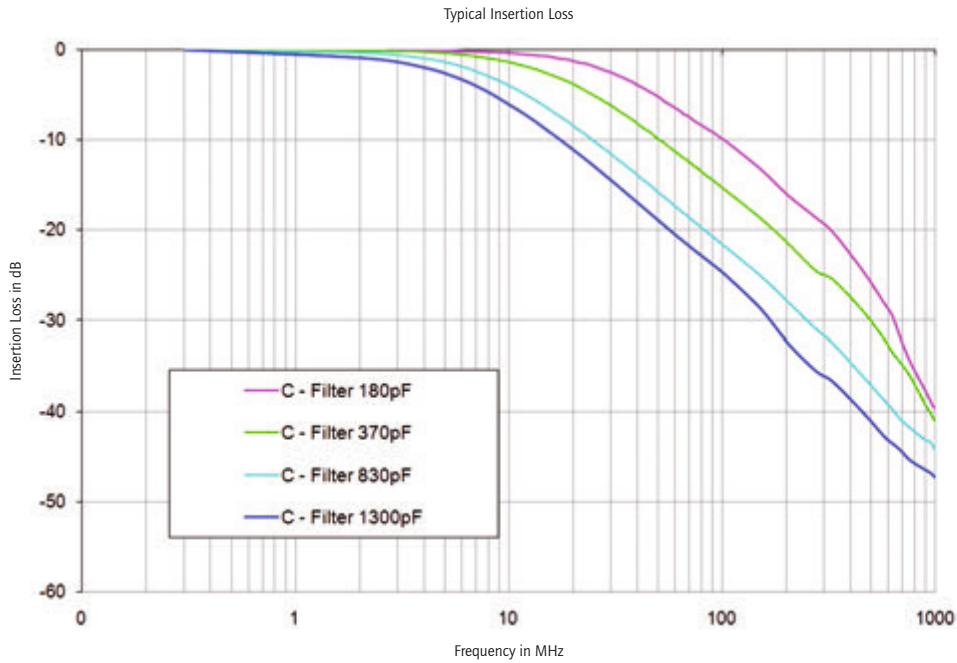


The hex bolts illustrated here (4-40 UNC or M3 threads) are included in the delivery complement of every connector with a sealing frame. The length of this spacer has been selected to accommodate a panel thickness of .063"/1.6 mm (Standard) / .051"/1.3 mm (CONEC SlimCon) such that it does not extend beyond the plug-in height. Material: stainless steel.

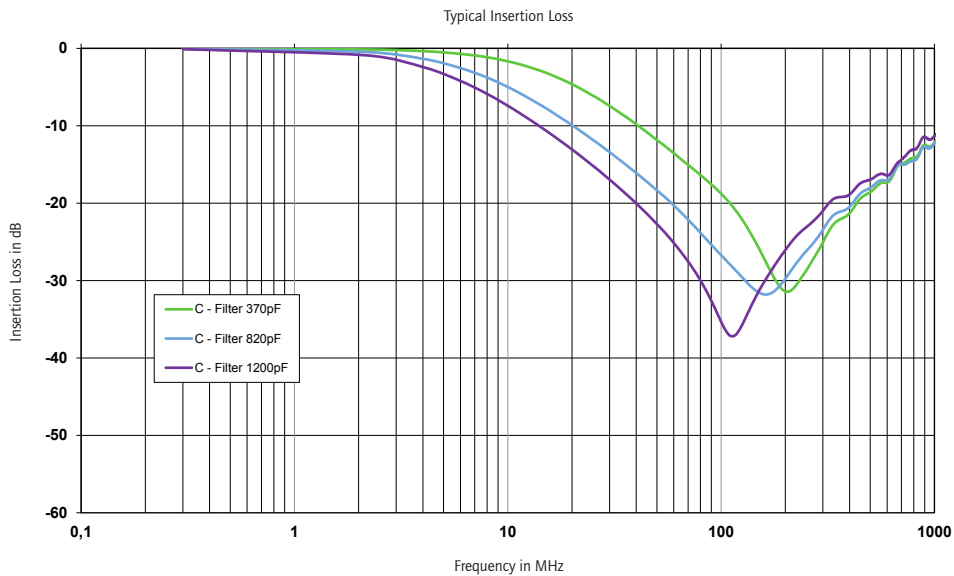
## IP67 FILTER D-SUB CONNECTORS

### Insertion loss

#### C-Filter with planar filter technology



#### C-Filter with chip technology (CONEC SlimCon)

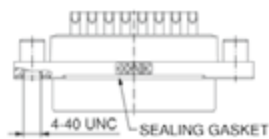
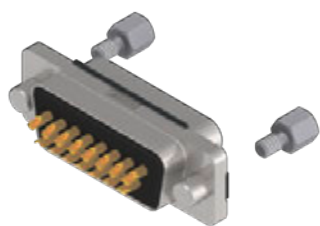


Technical specifications are subject to change without notice.

**IP67 FILTER D-SUB CONNECTORS**  
**CONEC SlimCon, C-Filter, Standard**

Solder cup  
 Precision machined contacts, AWG20

4-40 UNC threaded insert



One-piece zinc die-cast nickel plated shell  
 EMC Gasket or Silicone Gasket  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • Gaskets also available separately

No. of poles	Current rating [A]	Working voltage [V]	Quality class	Capacitance [pF]	EMC gasket	Silicone gasket	Part No. Socket contact	Part No. Plug contact
09	75 (UL) / 5 (CSA VDE)						15-008983	15-008943
15	75 (UL) / 5 (CSA VDE)	100	3	370	✓		15-008993	15-008953
25	75 (UL) / 5 (CSA VDE)						15-009003	15-008963
09	75 (UL) / 5 (CSA VDE)						15-009063	15-009023
15	75 (UL) / 5 (CSA VDE)	100	3	820	✓		15-009073	15-009033
25	75 (UL) / 5 (CSA VDE)						15-009083	15-009043
09	75 (UL) / 5 (CSA VDE)						15-009143	15-009103
15	75 (UL) / 5 (CSA VDE)	100	3	1200	✓		15-009153	15-009113
25	75 (UL) / 5 (CSA VDE)						15-009163	15-009123
09	75 (UL) / 5 (CSA VDE)						15-009463	15-009423
15	75 (UL) / 5 (CSA VDE)	100	3	370		✓	15-009473	15-009433
25	75 (UL) / 5 (CSA VDE)						15-009483	15-009443
09	75 (UL) / 5 (CSA VDE)						15-009543	15-009503
15	75 (UL) / 5 (CSA VDE)	100	3	820		✓	15-009553	15-009513
25	75 (UL) / 5 (CSA VDE)						15-009563	15-009523
09	75 (UL) / 5 (CSA VDE)						15-009623	15-009583
15	75 (UL) / 5 (CSA VDE)	100	3	1200		✓	15-009633	15-009593
25	75 (UL) / 5 (CSA VDE)						15-009643	15-009603

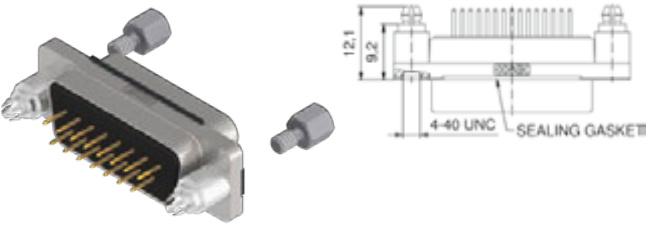


**IP67 FILTER D-SUB CONNECTORS**  
**CONEC SlimCon, C-Filter, Standard**

Solder pin, straight  
 Precision machined contacts

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

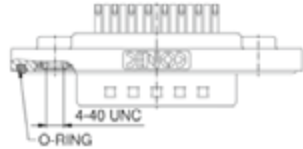
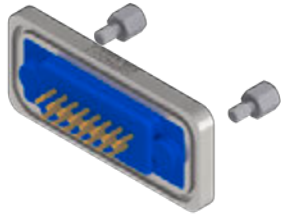
One-piece zinc die-cast nickel plated shell  
 EMC Gasket or Silicone Gasket  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • Gaskets also available separately

		No. of poles	Current rating [A]	Working voltage [V]	Quality class	Capacitance [pF]	EMC gasket	Silicone gasket	Part No. Socket contact	Part No. Plug contact
	09								15-009223	15-009183
	15	75 (UL) / 5 (CSA VDE)	100	3	370	✓			15-009233	15-009193
	25	75 (UL) / 5 (CSA VDE)							15-009243	15-009203
	09	75 (UL) / 5 (CSA VDE)							15-009303	15-009263
	15	75 (UL) / 5 (CSA VDE)	100	3	820	✓			15-009313	15-009273
	25	75 (UL) / 5 (CSA VDE)							15-009323	15-009283
	09	75 (UL) / 5 (CSA VDE)							15-009383	15-009343
	15	75 (UL) / 5 (CSA VDE)	100	3	1200	✓			15-009393	15-009353
	25	75 (UL) / 5 (CSA VDE)							15-009403	15-009363
	09	75 (UL) / 5 (CSA VDE)							15-009703	15-009663
	15	75 (UL) / 5 (CSA VDE)	100	3	370		✓		15-009713	15-009673
	25	75 (UL) / 5 (CSA VDE)							15-009723	15-009683
09	75 (UL) / 5 (CSA VDE)							15-009783	15-009743	
15	75 (UL) / 5 (CSA VDE)	100	3	820		✓		15-009793	15-009753	
25	75 (UL) / 5 (CSA VDE)							15-009803	15-009763	
09	75 (UL) / 5 (CSA VDE)							15-009863	15-009823	
15	75 (UL) / 5 (CSA VDE)	100	3	1200		✓		15-009873	15-009833	
25	75 (UL) / 5 (CSA VDE)							15-009883	15-009843	

**IP67 FILTER D-SUB CONNECTORS**  
**Plug connector, C-Filter, Standard**

**Solder cup**  
**Precision machined contacts, AWG 26**

4-40 UNC threaded insert



Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

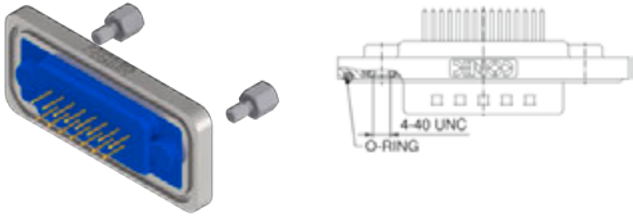
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	370	6STF09PAM03B30X
15						6STF15PAM03B30X
25						6STF25PAM03B30X
37						6STF37PAM03B30X
50						6STF50PAM03B30X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	830	6STF09PAM04B30X
15						6STF15PAM04B30X
25						6STF25PAM04B30X
37						6STF37PAM04B30X
50						6STF50PAM04B30X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	1300	6STF09PAM05B30X
15						6STF15PAM05B30X
25						6STF25PAM05B30X
37						6STF37PAM05B30X
50						6STF50PAM05B30X

**IP67 FILTER D-SUB CONNECTORS**  
 Plug connector, C-Filter, Standard

Solder pin, straight  
 Precision machined contacts

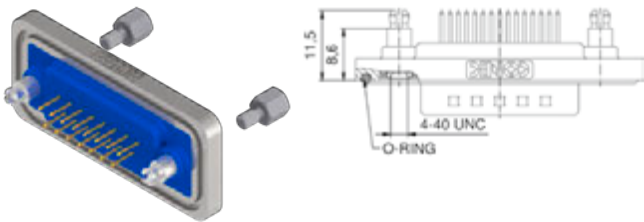
Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

4-40 UNC threaded insert



No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	6STF09PAR03B30X
15						6STF15PAR03B30X
25						6STF25PAR03B30X
37						6STF37PAR03B30X
50						6STF50PAR03B30X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	6STF09PAR04B30X
15						6STF15PAR04B30X
25						6STF25PAR04B30X
37						6STF37PAR04B30X
50						6STF50PAR04B30X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	6STF09PAR05B30X
15						6STF15PAR05B30X
25						6STF25PAR05B30X
37						6STF37PAR05B30X
50						6STF50PAR05B30X

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm



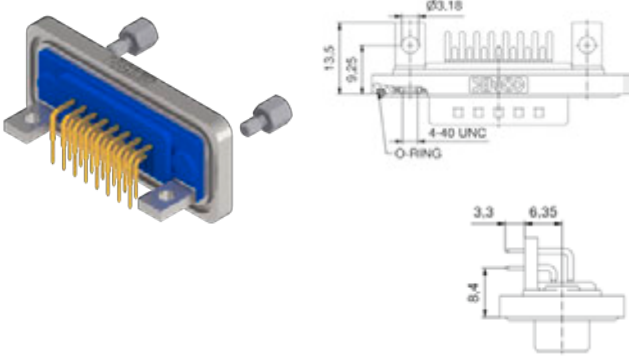
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	6STF09PAR03E20X
15						6STF15PAR03E20X
25						6STF25PAR03E20X
37						6STF37PAR03E20X
50						6STF50PAR03E20X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	6STF09PAR04E20X
15						6STF15PAR04E20X
25						6STF25PAR04E20X
37						6STF37PAR04E20X
50						6STF50PAR04E20X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	6STF09PAR05E20X
15						6STF15PAR05E20X
25						6STF25PAR05E20X
37						6STF37PAR05E20X
50						6STF50PAR05E20X

**IP67 FILTER D-SUB CONNECTORS**  
**Plug connector, C-Filter, Standard**

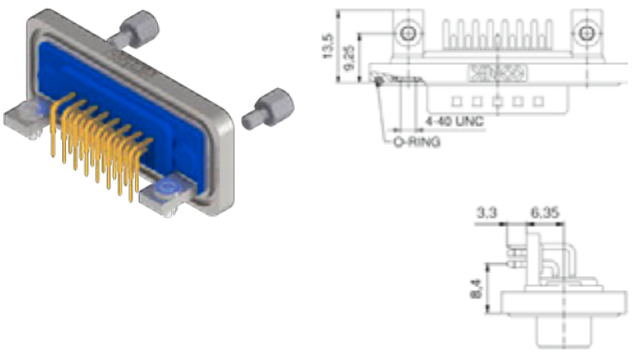
Solder pin angled, .331"/8.4 mm  
 Precision machined contacts, metal bracket

Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	6STF09PAT03S20X		
15						6STF15PAT03S20X		
25						6STF25PAT03S20X		
37						6STF37PAT03S20X		
09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	6STF09PAT04S20X		
15						6STF15PAT04S20X		
25						6STF25PAT04S20X		
37						6STF37PAT04S20X		
09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	6STF09PAT05S20X		
15						6STF15PAT05S20X		
25						6STF25PAT05S20X		
37						6STF37PAT05S20X		

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

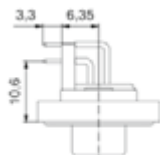
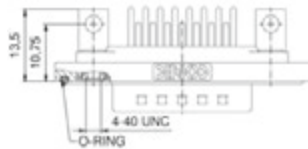
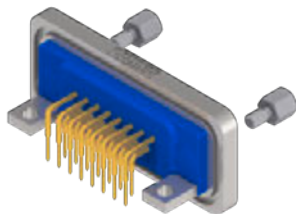
		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	6STF09PAT03S40X		
15						6STF15PAT03S40X		
25						6STF25PAT03S40X		
37						6STF37PAT03S40X		
09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	6STF09PAT04S40X		
15						6STF15PAT04S40X		
25						6STF25PAT04S40X		
37						6STF37PAT04S40X		
09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	6STF09PAT05S40X		
15						6STF15PAT05S40X		
25						6STF25PAT05S40X		
37						6STF37PAT05S40X		

**IP67 FILTER D-SUB CONNECTORS**  
**Plug connector, C-Filter, Standard**

Solder pin angled, .417" / 10.6 mm  
 Precision machined contacts, metal bracket

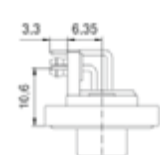
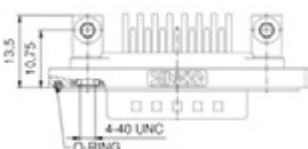
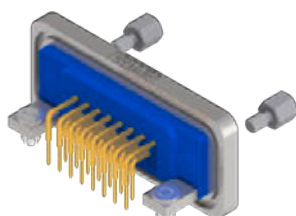
Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

4-40 UNC threaded insert



No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	6STF09PAU03R20X
15						6STF15PAU03R20X
25						6STF25PAU03R20X
37						6STF37PAU03R20X
50						6STF50PAU03R20X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	6STF09PAU04R20X
15						6STF15PAU04R20X
25						6STF25PAU04R20X
37						6STF37PAU04R20X
50						6STF50PAU04R20X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	6STF09PAU05R20X
15						6STF15PAU05R20X
25						6STF25PAU05R20X
37						6STF37PAU05R20X
50						6STF50PAU05R20X

Clip for PCB 1.6 mm, 4-40 UNC threaded insert



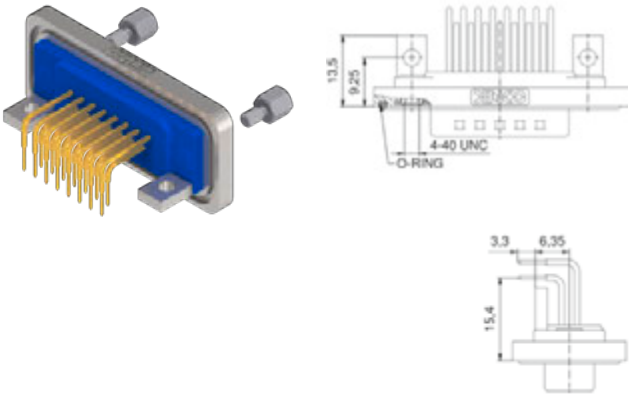
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	6STF09PAU03R40X
15						6STF15PAU03R40X
25						6STF25PAU03R40X
37						6STF37PAU03R40X
50						6STF50PAU03R40X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	6STF09PAU04R40X
15						6STF15PAU04R40X
25						6STF25PAU04R40X
37						6STF37PAU04R40X
50						6STF50PAU04R40X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	6STF09PAU05R40X
15						6STF15PAU05R40X
25						6STF25PAU05R40X
37						6STF37PAU05R40X
50						6STF50PAU05R40X

**IP67 FILTER D-SUB CONNECTORS**  
**Plug connector, C-Filter, Standard**

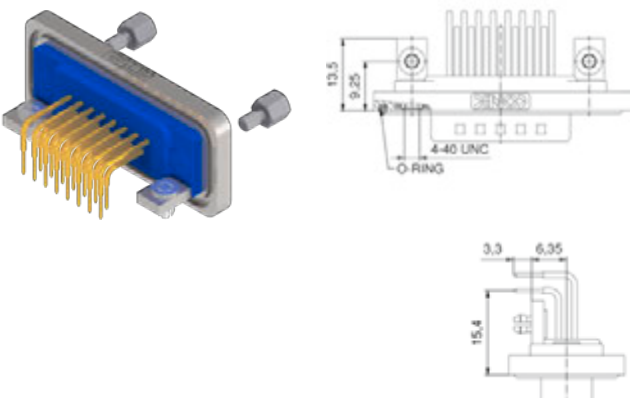
Solder pin angled, .606" / 15.4 mm  
 Precision machined contacts, metal bracket

Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

**4-40 UNC threaded insert**

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	6STF09PAZ03S20X		
15						6STF15PAZ03S20X		
25						6STF25PAZ03S20X		
37						6STF37PAZ03S20X		
09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	6STF09PAZ04S20X		
15						6STF15PAZ04S20X		
25						6STF25PAZ04S20X		
37						6STF37PAZ04S20X		
09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	6STF09PAZ05S20X		
15						6STF15PAZ05S20X		
25						6STF25PAZ05S20X		
37						6STF37PAZ05S20X		

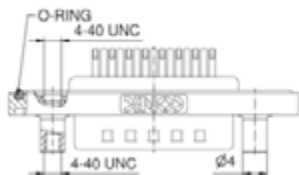
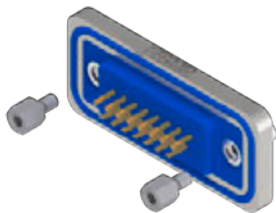
**Clip for PCB 1.6 mm, 4-40 UNC threaded insert**

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	6STF09PAZ03S40X		
15						6STF15PAZ03S40X		
25						6STF25PAZ03S40X		
37						6STF37PAZ03S40X		
09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	6STF09PAZ04S40X		
15						6STF15PAZ04S40X		
25						6STF25PAZ04S40X		
37						6STF37PAZ04S40X		
09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	6STF09PAZ05S40X		
15						6STF15PAZ05S40X		
25						6STF25PAZ05S40X		
37						6STF37PAZ05S40X		

**IP67 FILTER D-SUB CONNECTORS**  
 Plug connector, C-Filter, Standard, front panel mounting

Solder cup  
 Precision machined contacts, AWG 26

4-40 UNC front spacer



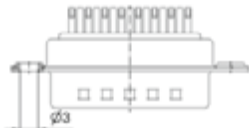
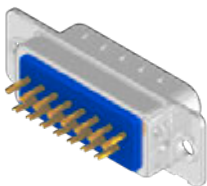
Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	370	6STF09PAM03B50X
15						6STF15PAM03B50X
25						6STF25PAM03B50X
37						6STF37PAM03B50X
50						6STF50PAM03B50X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	830	6STF09PAM04B50X
15						6STF15PAM04B50X
25						6STF25PAM04B50X
37						6STF37PAM04B50X
50						6STF50PAM04B50X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	1300	6STF09PAM05B50X
15						6STF15PAM05B50X
25						6STF25PAM05B50X
37						6STF37PAM05B50X
50						6STF50PAM05B50X

**IP67 FILTER D-SUB CONNECTORS**  
 Plug connector, C-Filter, Standard

Solder cup p,recision machined contacts  
 Hood Assembly, AWG 26

Through-hole Ø 3 mm



Shell: Brass tin plated  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles

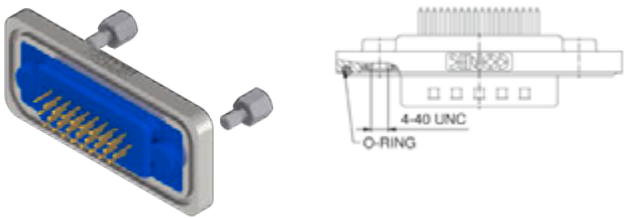
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	370	4STF09PAM03A10X
15						4STF15PAM03A10X
25						4STF25PAM03A10X
37						4STF37PAM03A10X
50						4STF50PAM03A10X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	830	4STF09PAM04A10X
15						4STF15PAM04A10X
25						4STF25PAM04A10X
37						4STF37PAM04A10X
50						4STF50PAM04A10X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	1300	4STF09PAM05A10X
15						4STF15PAM05A10X
25						4STF25PAM05A10X
37						4STF37PAM05A10X
50						4STF50PAM05A10X

**IP67 FILTER D-SUB CONNECTORS**  
**Plug connector C-Filter High Density**

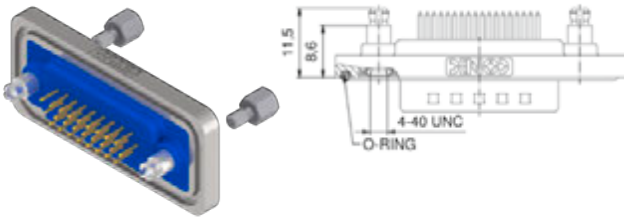
Solder pin straight  
 Precision machined contact

Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
		15	3 (UI) / 2.5 (CSA)	100	E202784	3	370	6HDF15PAR03B30X
26	6HDF26PAR03B30X							
44	6HDF44PAR03B30X							
62	6HDF62PAR03B30X							
15	3 (UI) / 2.5 (CSA)	100	E202784	3	830	6HDF15PAR04B30X		
26						6HDF26PAR04B30X		
44						6HDF44PAR04B30X		
62						6HDF62PAR04B30X		

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
		15	3 (UI) / 2.5 (CSA)	100	E202784	3	370	6HDF15PAR03E20X
26	6HDF26PAR03E20X							
44	6HDF44PAR03E20X							
62	6HDF62PAR03E20X							
15	3 (UI) / 2.5 (CSA)	100	E202784	3	830	6HDF15PAR04E20X		
26						6HDF26PAR04E20X		
44						6HDF44PAR04E20X		
62						6HDF62PAR04E20X		



**IP67 FILTER D-SUB CONNECTORS**  
**Plug connector C-Filter High Density**

Solder pin angled .362"/9.2 mm  
 Precision machined contacts, metal bracket

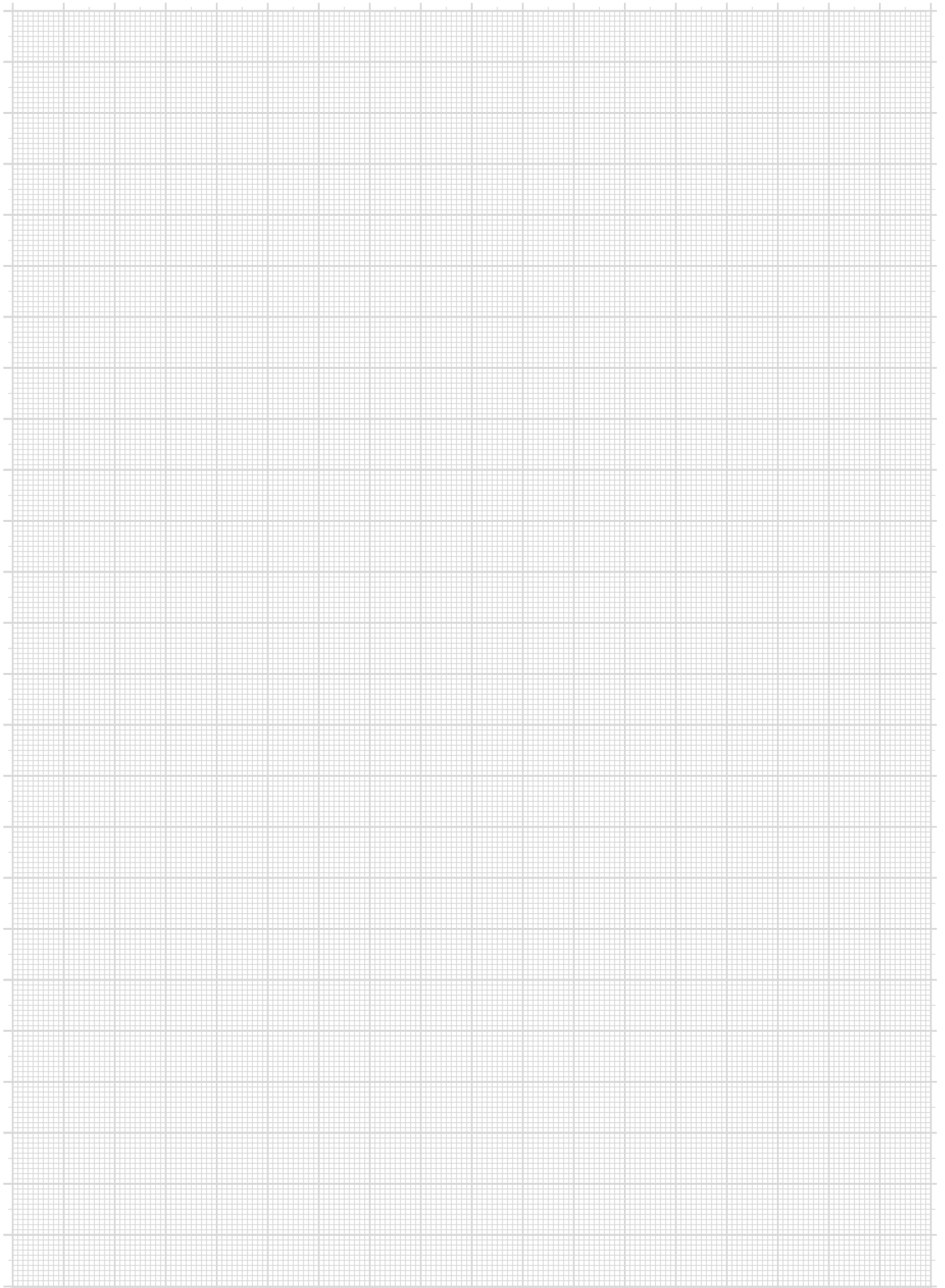
Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

4-40 UNC threaded insert

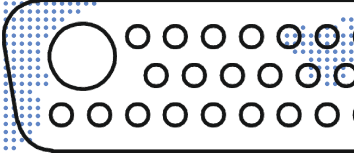
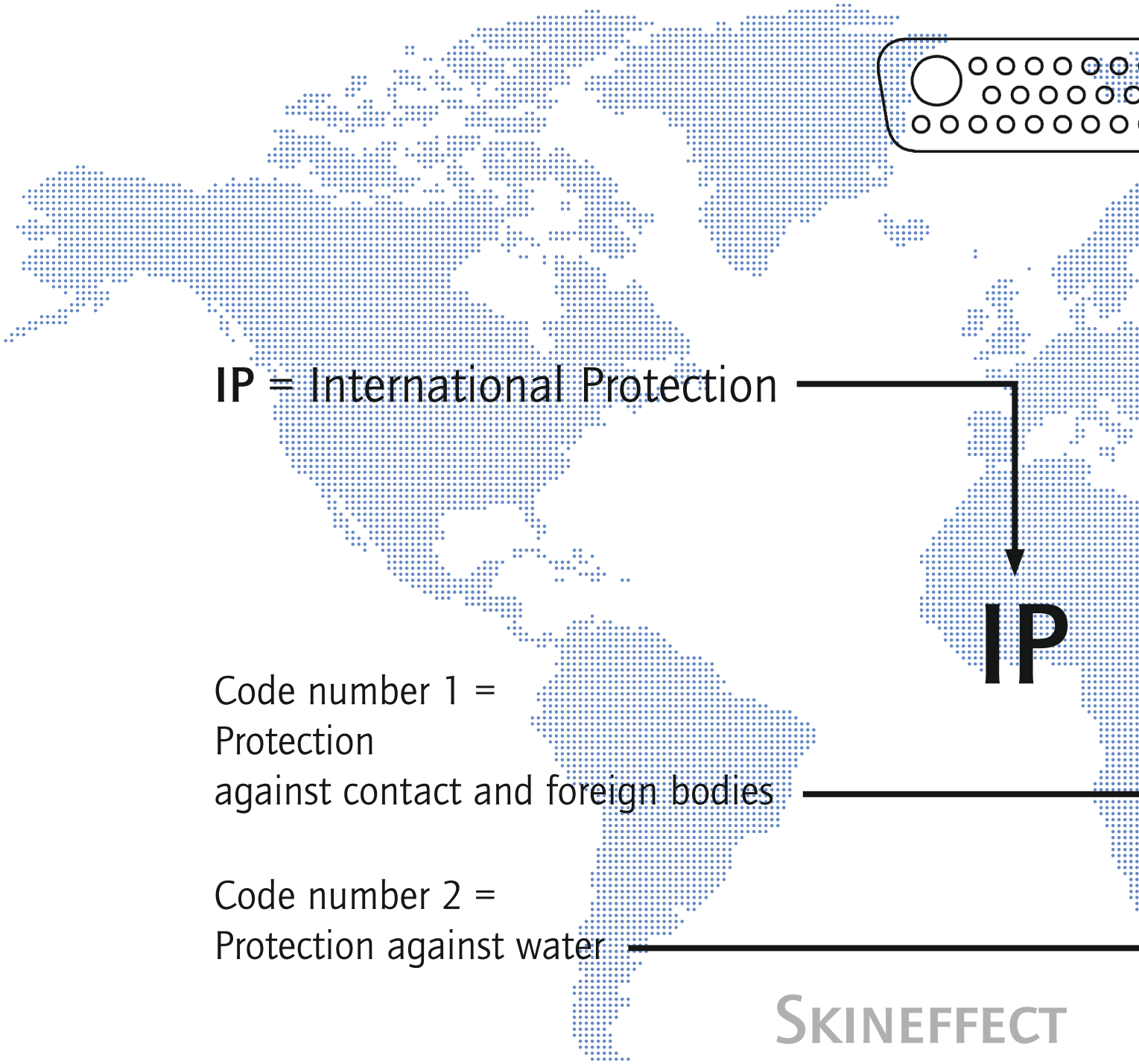
		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
	15	3 (UI) / 2.5 (CSA)	100	E202784	3	370	6HDF15PAY03R20X	
	26						6HDF26PAY03R20X	
	44						6HDF44PAY03R20X	
	62						6HDF62PAY03R20X	
	15	3 (UI) / 2.5 (CSA)	100	E202784	3	830	6HDF15PAY04R20X	
	26						6HDF26PAY04R20X	
	44						6HDF44PAY04R20X	
	62						6HDF62PAY04R20X	

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

	15	3 (UI) / 2.5 (CSA)	100	E202784	3	370	6HDF15PAY03R40X
	26						6HDF26PAY03R40X
	44						6HDF44PAY03R40X
	62						6HDF62PAY03R40X
	15	3 (UI) / 2.5 (CSA)	100	E202784	3	830	6HDF15PAY04R40X
	26						6HDF26PAY04R40X
	44						6HDF44PAY04R40X
	62						6HDF62PAY04R40X



# TECHNICAL INFORMATION



**IP = International Protection**



**IP**

Code number 1 =  
Protection  
against contact and foreign bodies

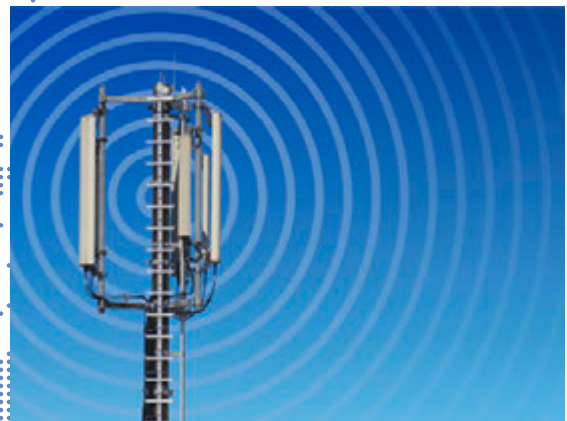
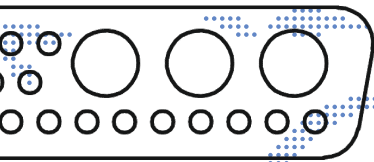


Code number 2 =  
Protection against water



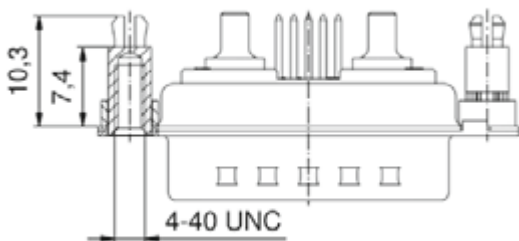
**SKINEFFECT**





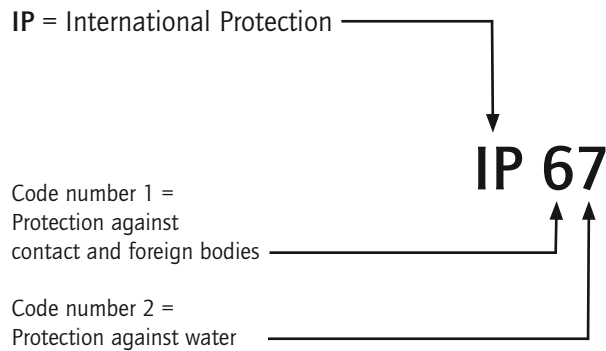
67

## SOLDER PARAMETER



Protection classes

Norm IEC 60529



For safety reasons, connectors have to be protected against external influences like dust, foreign objects, direct contact, moisture and water. For industrial connectors, this protection is provided by their housings with their latching devices and sealed cable entries. The protection classes are also called IP Codes. The abbreviation IP stands for "ingress protection". Standard IEC 60529 specifies and divides the degree of protection into several classes.

The protection classes refer to protection against contact and ingress of solid foreign objects and dust (indicated by the first code digit of the IP Code) as well as against damaging ingress of water (indicated by the second code digit of the IP Code)

PROTECTION CLASS OVERVIEW

First code digit	Protection against ingress of foreign objects Protection against contact	Second code digit	Protection against water	Examples
0	Not protected	0	Not protected	
1	Protection against ingress of solid foreign objects with diameters > than 50 mm Protected against access with the back of the hand	1	Protection against vertically dripping water	
2	Protection against ingress of solid foreign objects with diameters > than 12.5 mm Protected against access with a finger	2	Protection against dripping water with 15° inclination	
3	Protection against ingress of solid foreign objects with diameters > than 2.5 mm Protected against access with a tool	3	Protection against spray water inclined up to 60°	
4	Protection against ingress of solid foreign objects with diameters > than 1 mm Protected against access with a wire	4	Protection against splashing water	
5	Protected against dust in harmful quantities Complete protection against contact	5	Protection against jet water	
6	Dust-proof Complete protection against contact	6	Protection against powerful jets of water	
		7	Protection against temporary immersion (max. water depth 1 m)	
		8	Protection against constant immersion beyond 1 m An additionally indicated number stands for the maximum immersion depth in meters.	
		9K	Protection against very strong jets of water, e.g. from high-pressure steam jet cleaners for vehicles.	

## TECHNICAL INFORMATIONS

### Electrotechnical information for coaxial and high voltage contacts

#### Skin Effect

Alternating currents do not uniformly occupy the entire cross section of the conductor, rather inductance effect in the conductor deflects the current towards the surface of the conductor, whereby this deflection increases with the frequency. The resistive attenuation of a transmission line increases with the frequency as a result of this skin effect. The skin depth (equivalent thickness of the layer in which current flows) can be determined using

$$\delta = \frac{1}{\sqrt{f \pi \sigma \mu_0 \mu_r}}$$

f = frequency

$\sigma$  = conductivity of the conductor material

$\sigma_{Ag} = 62 \times 10^6 \text{ S/m}$

$\sigma_{Cu} = 58 \times 10^6 \text{ S/m}$

$\mu_0 = 1,256 \times 10^{-6} \text{ Vs / Am}$

$\mu_r$  ... relative permeability constant for the employed material

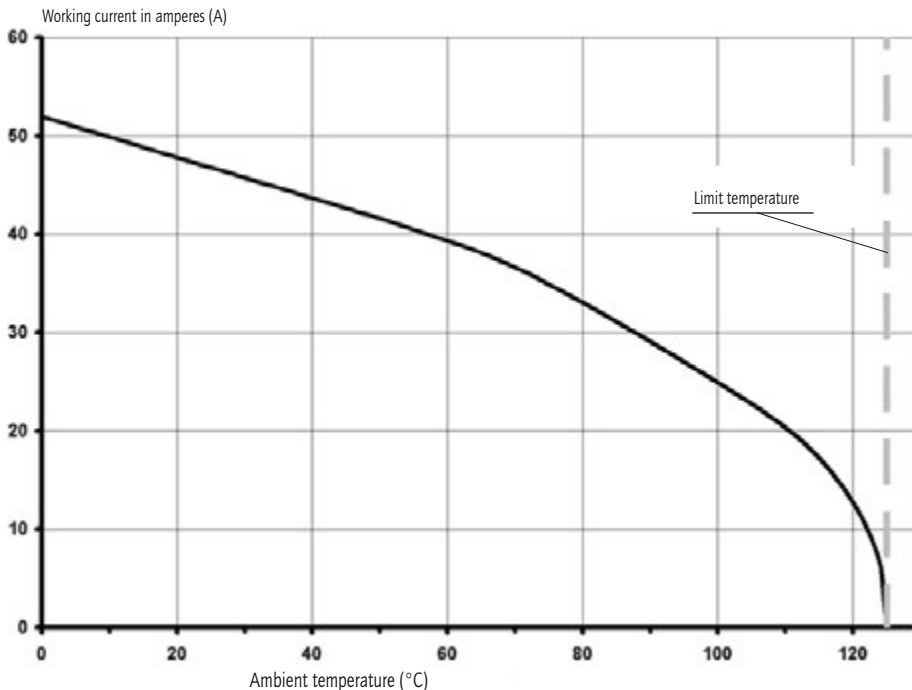
#### VSWR-Value

The ratio between the value of the largest and the smallest voltages on a loss-free line is known as the ripple or voltage standing wave ratio s (where  $1 \leq s < \infty$ ). The reciprocal value of the VSWR is known as the inverse voltage standing wave ratio m (where  $0 < m \leq 1$ ). (VSWR = Voltage standing wave ratio)

The value of s is linked with the  $\rightarrow$  reflection coefficient r on s transmission line according to the equation

$$s = \frac{(1 + |r|)}{(1 - |r|)}$$

#### DeRating Curve

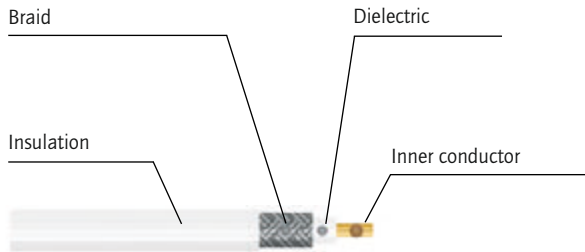


All connectors in the Water Resistant Combination D-Subminiature series are fully loaded with contacts. They are equipped with either signal, high voltage, high power or coaxial contacts according to requirements. Our production standard requires that all connectors are fully loaded.

Connectors 3W3, 5W5 and 8W8 female: Socket contacts are fingerprobe safe according to UL1950 and CSA 22.2.950 specifications.

## TECHNICAL INFORMATIONS

### Typical Assembly for coaxial crimp contacts (Detailed information upon request)



Strip the wire  
Using dimensions shown  
on the individual product  
drawings



Slide sleeve over coax cable



Crimp the inner contact on  
the inner conductor



Snap the inner contact  
into the outer contact



Slide braid over outer  
contact



Crimp the sleeve on to  
outer contact

## TECHNICAL INFORMATION

### Solder profile

Recommended wave - solder parameters for CONEC connectors

Connector Type	Preheating		Solder termination dipping parameters	
	max. temperature	max. duration	max. solder bath temperature	max. terminal immersion time
D-SUB Standard	100 °C	120 s	260 °C	5 s
D-SUB High Density	100 °C	120 s	260 °C	5 s
Combination D-SUB	100 °C	120 s	260 °C	5 s
Filter D-SUB	100 °C	30 s	260 °C	5 s
Filter Combination D-SUB	120 °C	120 s	260 °C	5 s
IP67 D-SUB (Standard + HD)	120 °C	120 s	240 °C	5 s
IP67 D-SUB Solid Body (Standard + HD)	150 °C	180 s	265 °C	8 s
IP67 D-SUB CONEC SlimCon (Standard + HD)	150 °C	180 s	265 °C	8 s
IP67 Filter D-SUB (Standard + HD)	100 °C	30 s	260 °C	5 s
IP67 Filter D-SUB CONEC SlimCon	150 °C	180 s	265 °C	8 s
IP67 D-SUB Combination	120 °C	120 s	240 °C	5 s
IP67 D-SUB Combination Solid Body	150 °C	180 s	265 °C	8 s
IP67 D-SUB Combination CONEC SlimCon	150 °C	180 s	265 °C	8 s

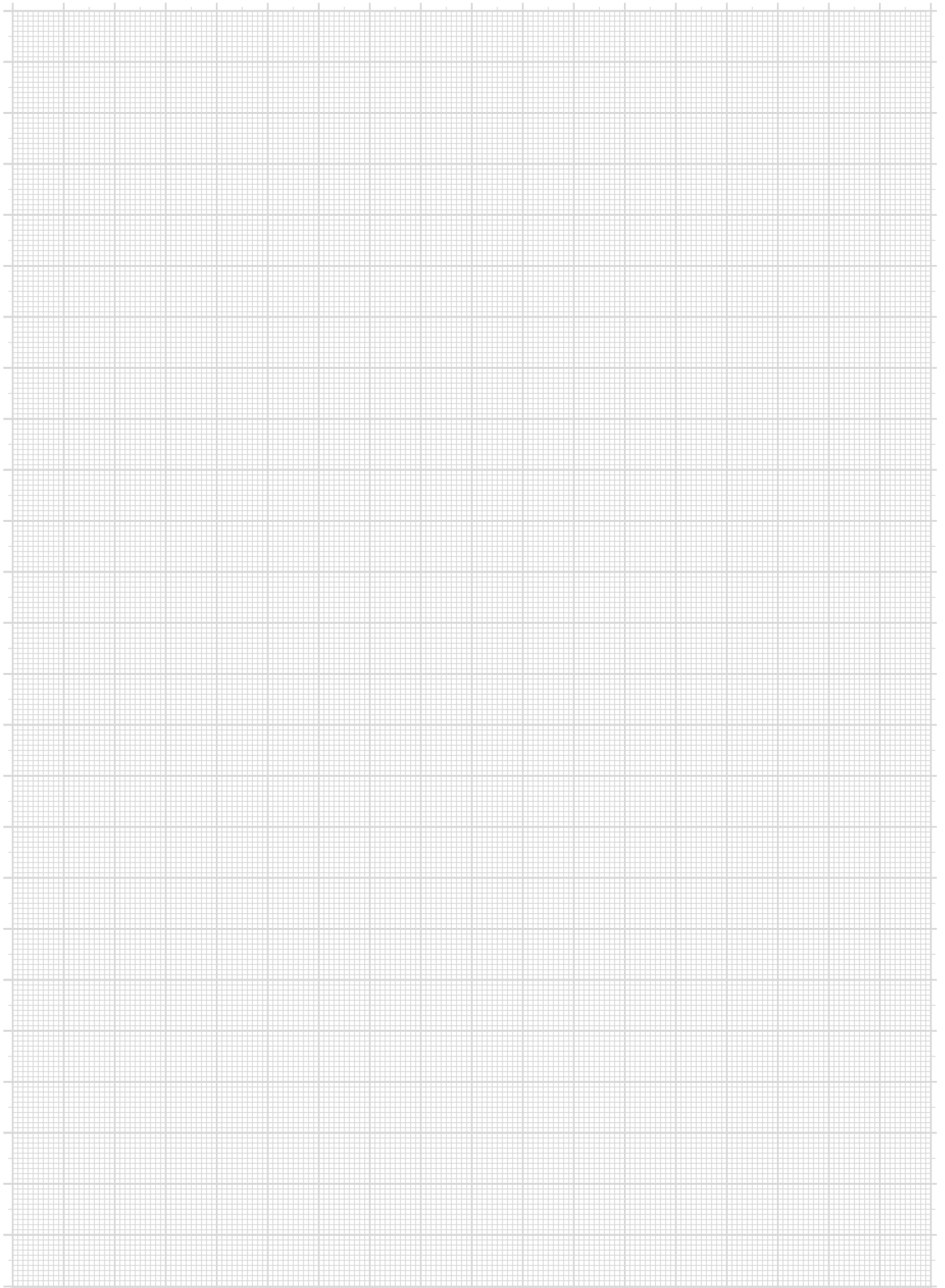
Technical specifications are subject to change without notice



# TECHNICAL INFORMATION

## Conversion table for units $\mu\text{m}/\text{mm}/\text{inch}$

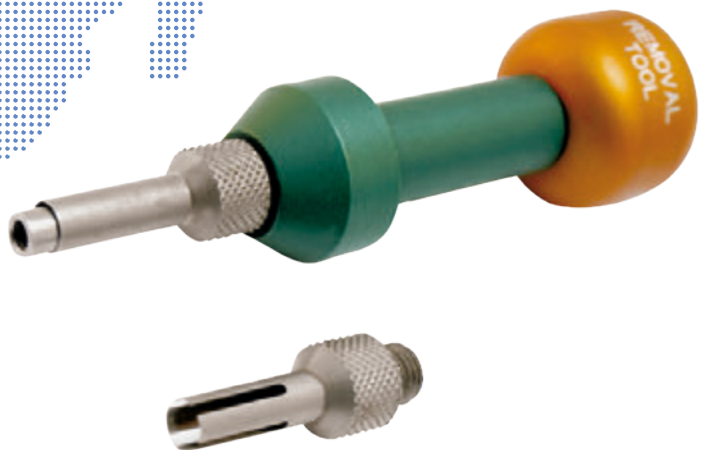
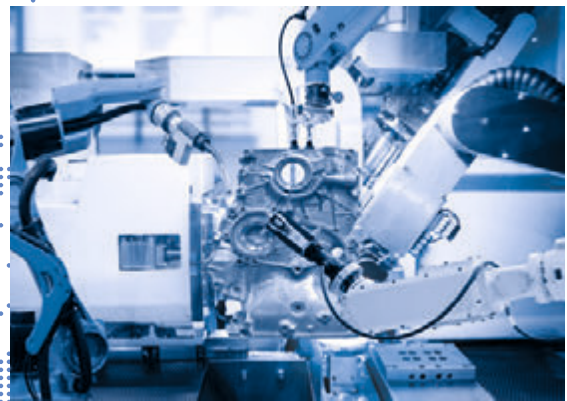
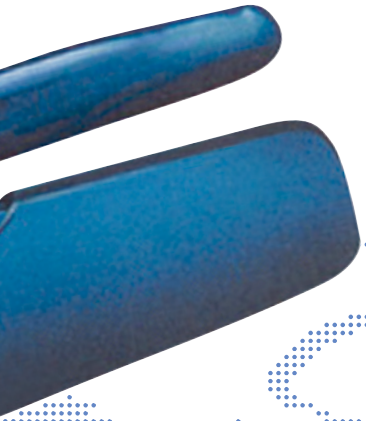
$\mu\text{m}$ 1/1000 mm	$\mu\text{inch}$ 1/1000 inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
0,10	4	3,30	.130	10,16	.400	19,50	.768	30,90	1.217	49,50	1.949
0,20	8	3,40	.134	10,26	.402	19,70	.776	31,00	1.220	49,90	1.965
0,25	10	3,50	.138	10,36	.406	19,80	.780	31,20	1.228	50,10	1.972
0,30	12	3,60	.142	10,56	.413	19,90	.783	31,50	1.240	50,30	1.980
0,50	20	3,70	.146	10,66	.417	20,00	.787	31,70	1.248	50,50	1.988
0,70	28	3,80	.150	10,76	.421	20,10	.791	32,00	1.260	50,70	1.996
0,75	30	3,81	.150	11,00	.433	20,30	.799	32,20	1.268	50,80	2.000
0,80	32	3,90	.154	11,20	.441	20,32	.800	32,30	1.272	51,40	2.024
1,00	39	4,00	.158	11,40	.449	20,50	.807	32,50	1.280	51,50	2.028
1,27	50	4,10	.161	11,50	.453	21,00	.827	32,80	1.291	52,00	2.047
2,00	79	4,20	.165	11,60	.457	21,10	.831	33,00	1.299	52,30	2.059
2,50	98	4,30	.169	11,90	.469	21,70	.854	33,10	1.303	52,80	2.079
3,00	118	4,30	.169	12,00	.472	22,00	.866	33,30	1.311	53,00	2.087
4,00	157	4,50	.177	12,20	.480	22,10	.870	33,80	1.331	53,20	2.095
5,00	197	4,70	.185	12,30	.484	22,20	.874	34,00	1.339	53,80	2.118
		4,90	.193	12,40	.488	22,30	.878	34,20	1.346	54,00	2.126
<b>mm</b>	<b>inch</b>	5,00	.197	12,50	.492	22,40	.882	34,40	1.354	54,20	2.134
0,10	.004	5,08	.200	12,70	.500	22,50	.886	35,00	1.378	54,90	2.161
0,20	.008	5,10	.201	12,90	.508	22,60	.890	35,40	1.394	55,00	2.165
0,25	.012	5,20	.205	12,90	.508	22,60	.890	35,40	1.394	55,00	2.165
0,35	.014	5,30	.209	13,00	.512	22,80	.898	35,50	1.398	55,40	2.181
0,40	.016	5,40	.213	13,10	.516	22,86	.900	35,56	1.400	55,70	2.193
0,45	.018	5,50	.217	13,20	.520	22,90	.902	35,60	1.402	56,60	2.228
0,50	.020	5,60	.220	13,50	.532	23,00	.906	36,00	1.417	57,40	2.260
0,55	.022	5,70	.224	13,60	.535	23,10	.909	36,50	1.437	57,80	2.276
0,60	.024	5,80	.228	13,70	.539	23,30	.917	36,60	1.441	57,90	2.280
0,64	.025	6,00	.236	13,90	.547	23,50	.925	36,70	1.445	58,42	2.300
0,65	.026	6,10	.240	14,00	.551	24,00	.945	37,00	1.457	59,00	2.323
0,70	.028	6,40	.252	14,30	.563	24,30	.957	37,30	1.469	59,20	2.331
0,75	.030	6,50	.256	14,40	.567	24,60	.969	37,50	1.476	59,80	2.354
0,80	.032	6,60	.260	14,50	.571	24,90	.980	37,60	1.480	59,90	2.358
0,85	.034	6,70	.264	14,70	.579	25,00	.984	37,70	1.484	60,00	2.362
0,90	.035	6,80	.268	14,80	.583	25,10	.988	37,90	1.492	60,96	2.400
1,00	.039	6,90	.272	14,90	.587	25,40	1.000	38,00	1.496	61,10	2.406
1,20	.047	7,00	.276	14,98	.590	25,60	1.008	38,10	1.500	62,00	2.441
1,25	.049	7,10	.280	15,00	.591	25,90	1.020	39,00	1.535	63,00	2.480
1,27	.050	7,20	.283	15,20	.598	26,00	1.024	39,20	1.543	63,50	2.500
1,30	.051	7,40	.291	15,24	.600	26,30	1.035	39,30	1.547	64,00	2.520
1,35	.053	7,50	.295	15,40	.606	26,60	1.047	39,90	1.571	65,00	2.560
1,40	.055	7,60	.299	15,50	.610	26,70	1.051	40,00	1.575	67,00	2.638
1,45	.057	7,62	.300	15,60	.614	27,00	1.063	40,30	1.587	68,00	2.677
1,50	.059	7,70	.303	15,90	.626	27,20	1.071	40,40	1.591	69,00	2.717
1,60	.063	7,80	.307	16,00	.630	27,40	1.079	40,60	1.598	70,00	2.756
1,70	.067	7,98	.314	16,20	.638	27,50	1.093	41,00	1.614	71,00	2.795
1,80	.071	8,00	.315	16,50	.650	27,90	1.098	41,60	1.638	74,00	2.913
1,85	.073	8,18	.318	16,60	.654	27,94	1.100	42,70	1.681	75,00	2.953
1,90	.075	8,20	.323	16,80	.661	28,00	1.102	43,18	1.700	76,20	3.000
2,00	.079	8,30	.327	17,00	.669	28,20	1.110	44,20	1.740	77,00	3.032
2,10	.083	8,40	.331	17,20	.677	28,50	1.122	44,80	1.764	78,74	3.100
2,20	.087	8,50	.335	17,30	.681	28,70	1.130	45,80	1.803	80,00	3.150
2,30	.091	8,60	.339	17,50	.689	29,00	1.142	46,30	1.823	81,28	3.200
2,40	.095	8,90	.350	17,60	.693	29,20	1.150	46,70	1.839	84,00	3.307
2,50	.098	9,00	.354	17,70	.697	29,40	1.158	47,00	1.850	85,00	3.346
2,54	.100	9,10	.358	17,78	.700	29,50	1.161	47,20	1.858	86,36	3.400
2,60	.102	9,20	.362	17,80	.701	29,70	1.169	47,30	1.862	88,90	3.500
2,70	.106	9,30	.366	17,90	.705	29,90	1.177	47,50	1.870	90,00	3.543
2,80	.110	9,40	.370	18,00	.709	30,00	1.181	47,80	1.882	91,44	3.600
2,84	.112	9,50	.374	18,10	.713	30,20	1.189	48,00	1.890	94,00	3.701
2,90	.114	9,60	.378	18,30	.721	30,40	1.197	48,10	1.894	95,00	3.740
3,00	.118	9,70	.382	18,60	.732	30,48	1.200	48,26	1.900	100,00	3.937
3,10	.122	9,90	.390	19,00	.748	30,50	1.201	48,80	1.921	110,00	4.331
3,20	.126	10,00	.395	19,20	.756	30,80	1.213	49,10	1.933	120,00	4.724



SECTION 10



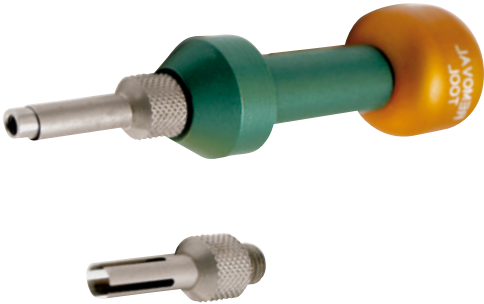
# INSTALLATION AND ASSEMBLY TOOLS







## INSTALLATION AND ASSEMBLY TOOLS

### Installing/Removal tools

for D-SUB connectors with crimp contacts	Description	Part. No.
	Insertion and extraction tool	360X12009X
for D-SUB High Density connectors with crimp contacts		
	Insertion tool	360X10339X
	removal tool	360X10349X
for D-SUB Combination Connectors with coaxial, high power and high voltage contacts		
	Extraction tool	360X10219X

## INSTALLATION AND ASSEMBLY TOOLS

### Crimp tools

for D-SUB standard connectors with stamped contacts	Description	Part. No.
	Crimp tool	360X10079X
	Spool crimp tool for stamped contacts on reel	360X10069X

## INSTALLATION AND ASSEMBLY TOOLS

### Crimp tools and inserts

for D-SUB, HD-SUB connectors with crimp contacts and D-SUB combination connectors with coaxial contacts (inner conductor)

Description

Part. No.



Hand crimp tool

360X10329X



Inserts (Part No. see following charts)

#### Inserts for use with hand crimp tool 360X10329X D-SUB Standard and High Density contacts



Part No. plug contacts	Part No. socket contacts	Part No. Crimp insert	AWG (Selector Setting)	AWG (Selector Setting)	AWG (Selector Setting)	AWG (Selector Setting)
161A18299X	162A18709X	360X20069X	20 (7)	22 (6)	24 (5)	
161A18309X	162A18719X	360X20069X	24 (7)	26 (6)	28 (5)	
161A18009X	162A18419X	360X10629X	22 (4)	24 (3)	26 (2)	28 (1)
	16-000693 (closed entry)	360X10629X	22 (4)	24 (3)	26 (2)	28 (1)
131C15019X	132C15019X	360X20039X	20 (7)	22 (6)	24 (5)	
131C15029X	132C15029X	360X20039X	24 (7)	26 (6)	28 (5)	

#### Inserts for use with hand crimp tool 360X0329X D-SUB Combination coaxial contacts (inner conductor)

Part No. plug contacts	Part No. socket contacts	Part No. Crimp insert	Selector setting			
131J21019X	132J21019X	360X11049X	depending on wire use selector setting			
131J21029X	132J21029X	360X11049X				
131J21039X	132J21039X	360X11049X	AWG			Selector setting
131J23019X	132J23019X	360X11059X	24	→		5
131J31019X	132J31019X	360X11049X	26	→		5
131J31029X	132J31029X	360X11049X	28	→		4
131J33019X	132J33019X	360X11059X	30	→		3

## INSTALLATION AND ASSEMBLY TOOLS

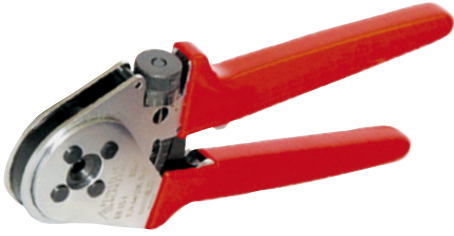
### Crimp tools and inserts

for D-SUB standard connectors with stamped contacts	Description	Part. No.
	Hand crimp tool	360X10409X
	Insert for above hand crimp tool	360X20029X

#### Selector setting for High Power contacts

Contact Type	Part. no. plug contacts	Part. no. socket contacts	Crimp insert	AWG (Selector Setting)	AWG (Selector Setting)	AWG (Selector Setting)
D-Sub Combination High power contacts	131C11019X	132C11019X	360X20029X	16 (3)	18 (2)	20 (2)
	131C11029X	132C11029X	360X20029X	12 (5)	14 (4)	
	131C11039X	132C11039X	360X20029X	10 (7)	12 (6)	
	131C11049X	132C11049X	360X20029X	8 (7)	10 (6)	


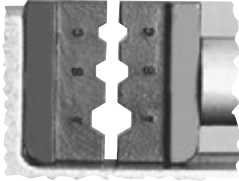
#### for D-SUB Combination connectors with angled high power contacts

	Hand crimp tool	360X12269X
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## INSTALLATION AND ASSEMBLY TOOLS

### Crimp tools and inserts



for D-SUB combination connectors with coax contacts (outer conductor)	Description	Part. No.
	Hand crimp tool	360X10519X
	Inserts (Part No. see following chart)	

#### Inserts for use with hand crimp tool 360 X0329 X/D-SUB Combination coac contacts (outer conductor)

Part No. plug contacts	Part No. socket contacts	Part No. Crimp insert	Inser cavity
131J20019X	132J20019X	360X11019X	C
131J20029X	132J20029X	360X11019X	B
131J20039X	132J20039X	360X11019X	A
131J20049X	132J20049X	360X11029X	A
131J20059X	132J20059X	360X11039X	B
131J21019X	132J21019X	360X11019X	B
131J21029X	132J21029X	360X11039X	B
131J21039X	132J21039X	360X11029X	A
131J22019X	132J22019X	360X11019X	B
131J22029X	132J22029X	360X11019X	C
131J22039X	132J22039X	360X11039X	B
131J23019X	132J23019X	360X11019X	B
131J30019X	132J30019X	360X11019X	B
131J30029X	132J30029X	360X11019X	B
131J31019X	132J31019X	360X11019X	B
131J31029X	132J31029X	360X11019X	A
131J33019X	132J33019X	360X11019X	B

## INSTALLATION AND ASSEMBLY TOOLS

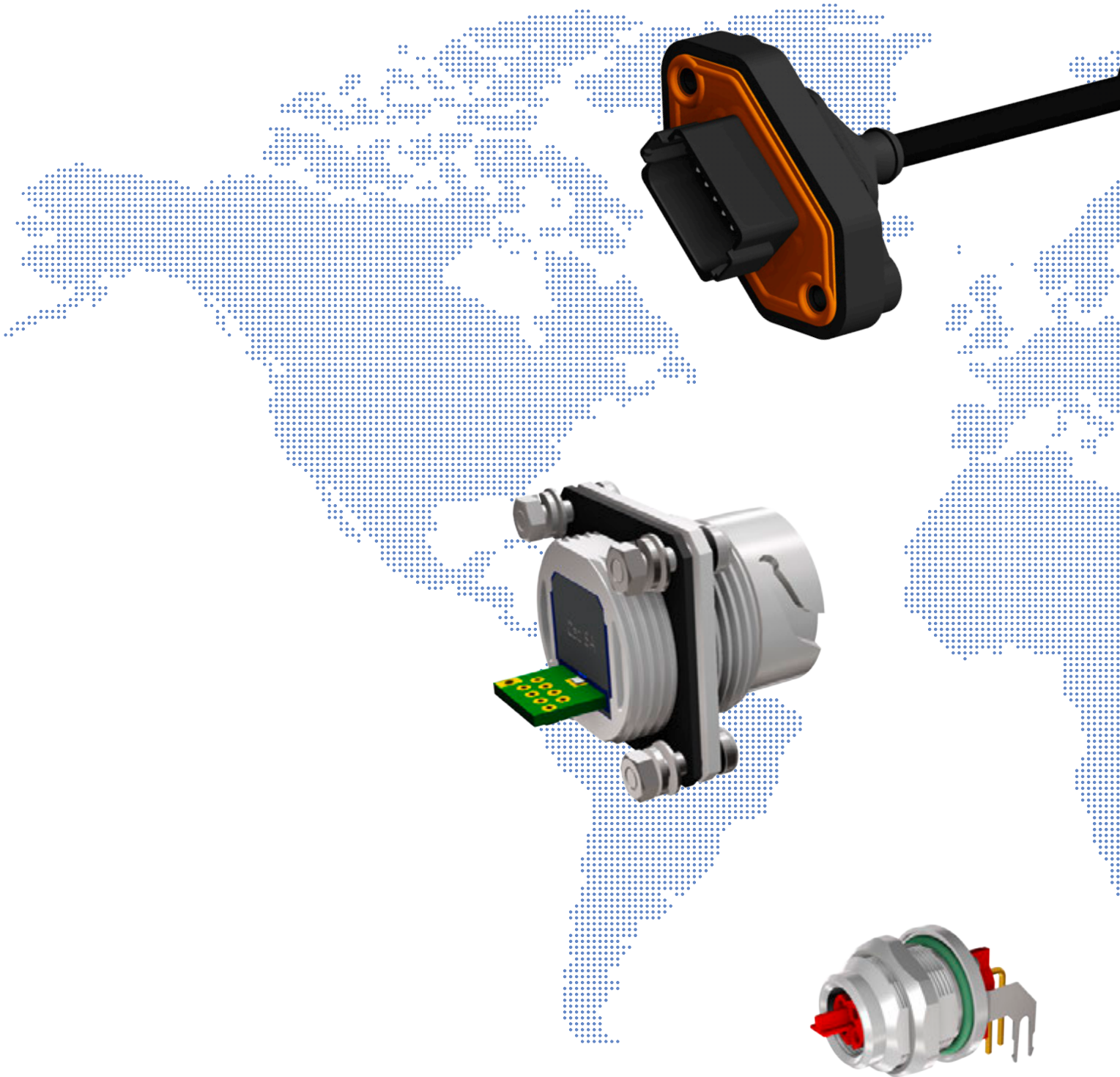
### Manually operated lever press + press in tool sets

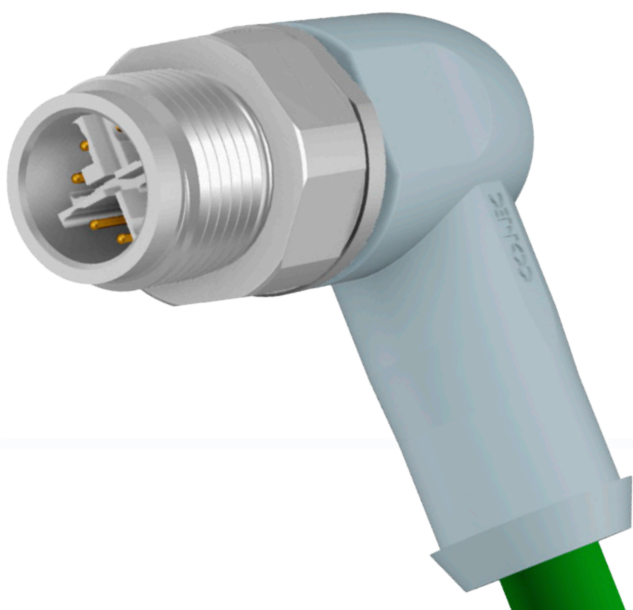
for D-SUB combination connectors with coax contacts (outer conductor)	Description	Part. No.
	Manually operated lever press	360X12369X
	Press in tool sets (Part No. see following chart)	

#### Press in tool sets for D-SUB, HD-SUB and D-SUB Combination Connectors

Socket Connector	Type	Part. No.
Combination D-SUB Connectors	2W2C	360X00159A
Combination D-SUB Connectors	3W3	360X00169A
Combination D-SUB Connectors	3W3C	360X00169A
Combination D-SUB Connectors	5W5	360X00179A
Combination D-SUB Connectors	8W8	360X00189A
Plug Connector	9-pos./15-pos. HD	360X15019X
Plug Connector	15-pos./26-pos. HD	360X15029X
Plug Connector	25-pos./44-pos. HD	360X15039X
Plug Connector	37-pos./62-pos. HD	360X15049X
Plug Connector	50-pos./78-pos. HD	360X15059X
Socket Connector	9-pos./15-pos. HD	360X15069X
Socket Connector	15-pos./26-pos. HD	360X15079X
Socket Connector	25-pos./44-pos. HD	360X15089X
Socket Connector	37-pos./62-pos. HD	360X15099X
Socket Connector	50-pos./78-pos. HD	360X15109X

# ADDITIONAL PRODUCT CATEGORIES





## ADDITIONAL CONEC PRODUCT CATEGORIES

### IP67 Power Bayonet



#### Details

- No. of poles: 2, 2+PE
- Receptacle male and female
- Cable connector male and female
- Degree of protection: IP67

#### Benefits

- Use in harsh environments
- Secure and easy locking by bayonet lock
- Cable to cable connection available
- High current carrying capability

### IP67 Mini USB, USB 2.0, USB 3.0 connectors



#### Details

- Type: USB 3.0 Type A
- Type: USB 2.0 Type A, Mini USB Type A
- Housing: plastic, plastic metallized, zinc die-cast
- Locking: bayonet, M28
- Termination: soldering, PCB
- Front- and back panel mounting
- Adapters
- Degree of protection: IP67
- Degree of protection: IP20 (patch cord)

#### Benefits

- Use in harsh environments
- Secure and easy locking by bayonet lock
- Light-weight versions ideal for portable devices

## ADDITIONAL CONEC PRODUCT CATEGORIES

### IP67 RJ45 Industrial Ethernet connectors



#### Details

- Housing: plastic, plastic metallized, zinc die-cast
- Locking: bayonet, M28
- Termination: soldering, IDC, screw
- Front- and back panel mounting
- UTP Cat 5e, STP Cat 5e, S/STP Cat 6A
- Degree of protection: IP67
- Degree of protection: IP20 (patch cord)

#### Benefits

- Use in harsh environments
- Easy and secure locking by bayonet lock
- Front- and back panel mounting
- Light-weight versions
- Colored interface encoding available
- Cat. 6 A variants up to 10 GBit /s

### IP67 Fiber Optic LC Duplex



#### Details

- Housing: plastic, plastic metallized, zinc die-cast
- Locking: bayonet
- Single Mode, Multi Mode, APC Single Mode
- Front- and back panel mounting
- Degree of protection: IP67

#### Benefits

- Use in harsh environments
- Secure and easy locking by bayonet lock
- Extended temperature range
- Interference-free safe data transmission
- Cost efficiency by integrated IP67 protection

## ADDITIONAL CONEC PRODUCT CATEGORIES

### CONEC Hybrid connectors



#### Details

- Size: B12, B17, B23, B40
- Coding: 1, 2, 3, 4, 5, 6
- Number of poles power: 2, 2+PE, 3+PE, 4+PE, 3+PE+2
- Number of poles data: 4 (transmission according IEC11801 Cat 5)
- Configuration: Connector axial overmoulded, Connector axial field attachable, sockets axial, sockets angled rotatable (B23)
- Bayonet locking
- Degree of protection: IP67

#### Benefits

- Space-saving by transmitting data and power with one connector
- Quick and secure connection by bayonet locking
- Compact and robust design
- Adjustable direction of outlet (B23 receptacle angled)

### Circular connectors overmoulded (signal transmission)



#### Details

- Size: M8x1, M12x1, 7/8", Rund24
- Coding: A, B, C
- Number of poles: 3, 4, 5, 6, 8, 12, 2+PE, 3+PE, 4+PE
- Configuration: axial or angled, shielded or unshielded
- Optional with LED
- Termination: screw-, snap-, screw-/snap-termination
- Degree of protection: IP67

#### Benefits

- Robust design with minimum space requirements
- Mating can be controlled with torque wrench
- Vibration proof screw lock
- Application-related cable qualities

## ADDITIONAL CONEC PRODUCT CATEGORIES

### Circular connectors field attachable (signal transmission)



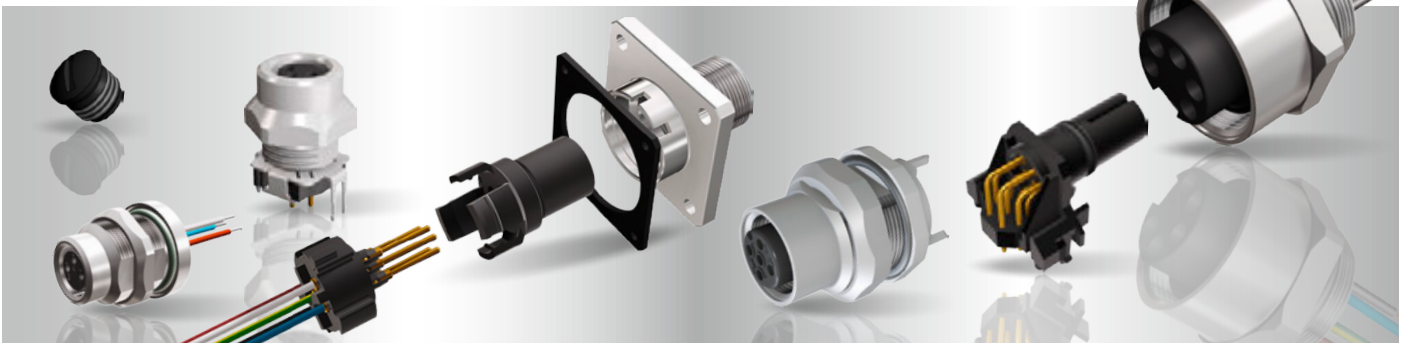
#### Details

- Size: M8x1, M12x1, 7/8", Rund24
- Coding: A
- Number of poles: 3, 4, 5, 8, 2+PE, 3+PE, 4+PE, 6+PE
- Configuration: axial or angled, shielded or unshielded
- Termination: solder-, clamp-, screw-, crimp termination
- Degree of protection: IP67

#### Benefits

- Mating can be controlled with torque wrench
- Easy field attachable without special tools
- M12x1 cable cross section 1.5 mm<sup>2</sup> (Crimp max. 1.0 mm<sup>2</sup>)
- Vibration proof screw lock

### Sockets (signal transmission)



#### Details

- Size: M8x1, M12x1, 7/8"
- Coding: A, B
- Number of poles: 3, 4, 5, 6, 8, 12, 2+PE, 4+PE
- Male socket, female socket
- Configuration: axial or angled
- Field attachable crimp version
- Assembly: Protection cap
- Front and back panel mounting
- Degree of protection: IP67

#### Benefits

- Colored contact insulators to avoid wrong plugging
- High number of poles with minimum space requirements
- Direct circuit board mounting
- Protection of unused interfaces



## ADDITIONAL CONEC PRODUCT CATEGORIES

### Sockets SMT/THR (signal transmission)



#### Details

- Size: M8x1 SMT/THR, M12x1 SMT
- Coding: A, B
- Number of poles: 3, 4, 5, 8
- Male socket, female socket
- Configuration: axial, shielded or unshielded
- Front and back panel mounting
- Degree of protection: IP67

#### Benefits

- Automated assembly (SMT)
- High number of poles with minimum space requirements
- Low forces on the board
- Low contact resistance on the shielding
- Large tolerance compensation between board and housing

### Panel plugs



#### Details

- Size: M8x1, M12x1
- Coding: A
- Number of poles: 3, 4, 5, 8
- With LED preparation
- Configuration: axial
- Housing configuration: Plastic, metal, metal/plastic transparent
- Termination: Solder-, print termination
- Degree of protection: IP67

#### Benefits

- Easy installation in housing by pushing in
- Low installation height
- Various connection possibilities

## ADDITIONAL CONEC PRODUCT CATEGORIES

### Power connectors



#### Details

- Size: M12x1, 7/8", Rund24
- Coding: L, S, T
- Number of poles: 3, 4, 2+PE, 3+PE, 4+PE, 4+FE, 6+PE
- Configuration: axial or angled
- Degree of protection: IP67

#### Benefits

- Transmission of high currents
- Mating can be controlled with torque wrench
- Defined tightening torque
- Polarity reversal prevented with coded insulators
- Robust design with minimum space requirements

### High Temperature/Food & Beverage connectors



#### Details

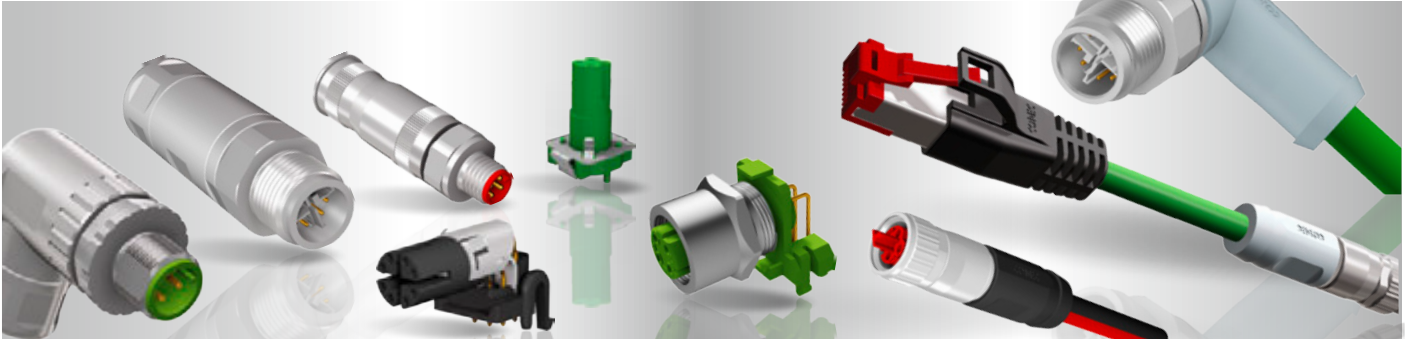
- Size: M8x1, M12x1
- Coding: A
- Number of poles: 3, 4, 5
- Female connector, male connector
- Optional with LED
- Temperature-resistant up to 125 °C (HT)
- Degree of protection: IP65 (HT), IP67/IP69K (F&B)

#### Benefits

- Resistance to commercial aggressive cleaning agents
- Robust design with minimum space requirements
- Mating can be controlled with torque wrench
- Vibration proof screw lock
- Use in constantly high ambient temperatures

## ADDITIONAL CONEC PRODUCT CATEGORIES

### Connectors for BUS-Systems



#### Details

- Size: M8x1, M12x1, 7/8", RJ45
- Coding: B, D, P, X
- Number of poles: 4, 8
- Profibus DP
- DeviceNet
- Industrial Ethernet 100 MHz
- EtherCAT P
- 10 Gigabit Ethernet
- Configuration: axial or angled

#### Benefits

- Robust design with minimum space requirements
- Vibration proof screw lock
- SMT versions for automatic placement
- High data transmission up to 10 Gbit/s (X-cod.)
- Flexible cabling in the field by field attachable variants

### Junction systems



#### Details

- Size: M8x1, M12x1
- Number of poles: 3, 4, 5, 8, 4+PE
- 1:1 wiring
- Signal distribution
- Assembly: retaining clip, protection caps
- Degree of protection: IP67

#### Benefits

- Reduction of installation costs
- Space saving design
- Robust design with minimum space requirements
- Signals and power are transmitted by standardized plug systems
- Back-to-back assembly with retaining clip

## ADDITIONAL CONEC PRODUCT CATEGORIES

### DT, Superseal and ISOBUS series



#### Details

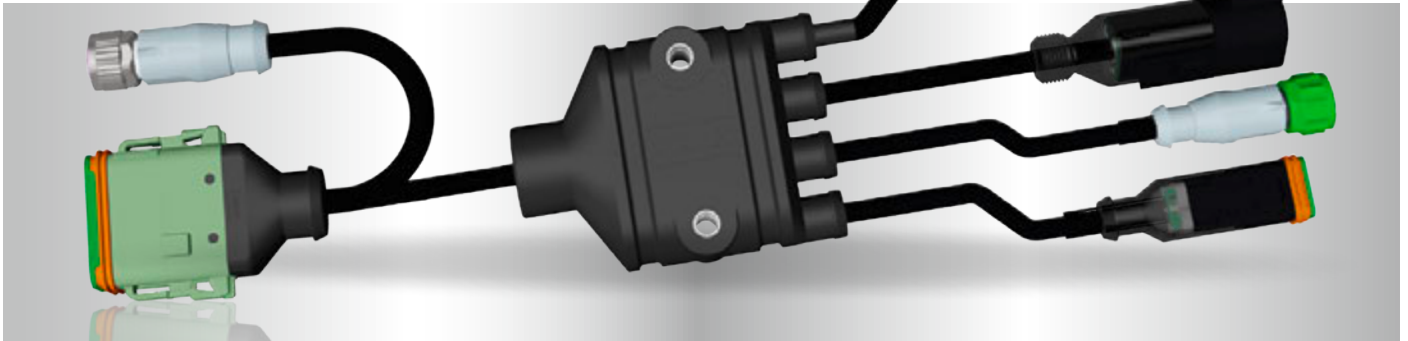
- No. of poles: 2-, 3-, 4-, 6-, 8-, 12-pos. (DT-Series)  
2-, 3-, 4-, 5-, 6-pos. (Superseal), 9-pos. (ISOBUS)
- PUR Cable 0.75 mm<sup>2</sup>/AWG 18
- Optional with M12-thread (DT-Series)
- Optional with LED and protection circuit (DT-Series: 2- und 3-pos.)
- Available with single wire (2-pos. DT-Series and Superseal)
- Protection cap (DT- and Superseal-Series)
- Available with double outlet (DT 2-, 4-, 6-, 8-pos.)
- Gender: Female, male

#### Benefits

- Compact design
- With/without LED and protection circuit
- Status indication via LED, visible from all sides (DT-Series)
- Attachment/mounting of cable protection hose (DT-/Superseal-Series)
- The overmoulding provides an overall IP67 protection from the housing into the cable

## ADDITIONAL CONEC PRODUCT CATEGORIES

### Junction system Type S, M, L



#### Details

##### Type S

- 66 x 30 x 15 mm
- Cable inlets: 1, 2
- Cable outlets: 1, 2
- Max. Cable diameter inlets: 8 mm
- Max. Cable diameter outlets: 8 mm

##### Type M

- 66 x 40 x 15 mm
- Cable inlets: 1, 2, 3
- Cable outlets: 1, 2, 3
- Max. Cable diameter inlets: 11 mm
- Max. Cable diameter outlets: 8 mm

##### Type L

- 76 x 55 x 22 mm
- Cable inlets: 1, 3, 4
- Cable outlets: 3, 4
- Max. Cable diameter inlets: 17 mm
- Max. Cable diameter outlets: 13 mm (3 exits),  
8 mm (4 exits)

#### Benefits

- Reduction of installation costs
- Fully protected cable harness
- Space saving design
- Robust design with minimum space requirements
- Different mounting options
- Degree of protection: IP67

## ADDITIONAL CONEC PRODUCT CATEGORIES

### PCB connectors



### Overview

- DIN EN 60603-2
- DIN 41617
- AdvancedTCA
- Flat cable connector
- CompactPCI
- PC104/PC104Plus

### Customized products



### Many things are possible

Are you looking for application-specific solutions?

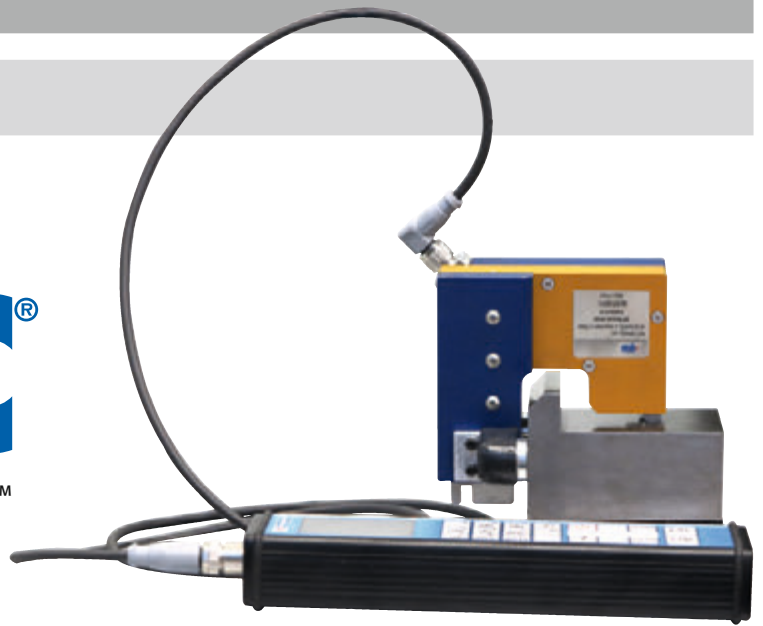
Please contact us – our expert team will support you from the product concept up to optimised serial production.

- Special interconnect solutions to customer specifications
- Prototypes and small series production batches
- Connectors with increased IP ratings for harsh environments
- Enclosure technology for industrial use

CUSTOMIZED PRODUCTS

Application-specific-solutions

**CONEC**<sup>®</sup>  
TECHNOLOGY IN CONNECTORS<sup>™</sup>



Despite a comprehensive product portfolio of industrial connectors, customer requirements cannot always be satisfied from standard products. In such cases, it is essential to develop custom specific solutions for mechanical and plant engineering as quickly as possible.

Are you looking for application-specific solutions? The experienced CONEC design team creates solutions for you, for example:

- Special interconnect solutions to customer specifications
- Prototypes and small series production batches
- Connectors with increased IP ratings for harsh environments



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