

EMI INTERFACE SOLUTIONS

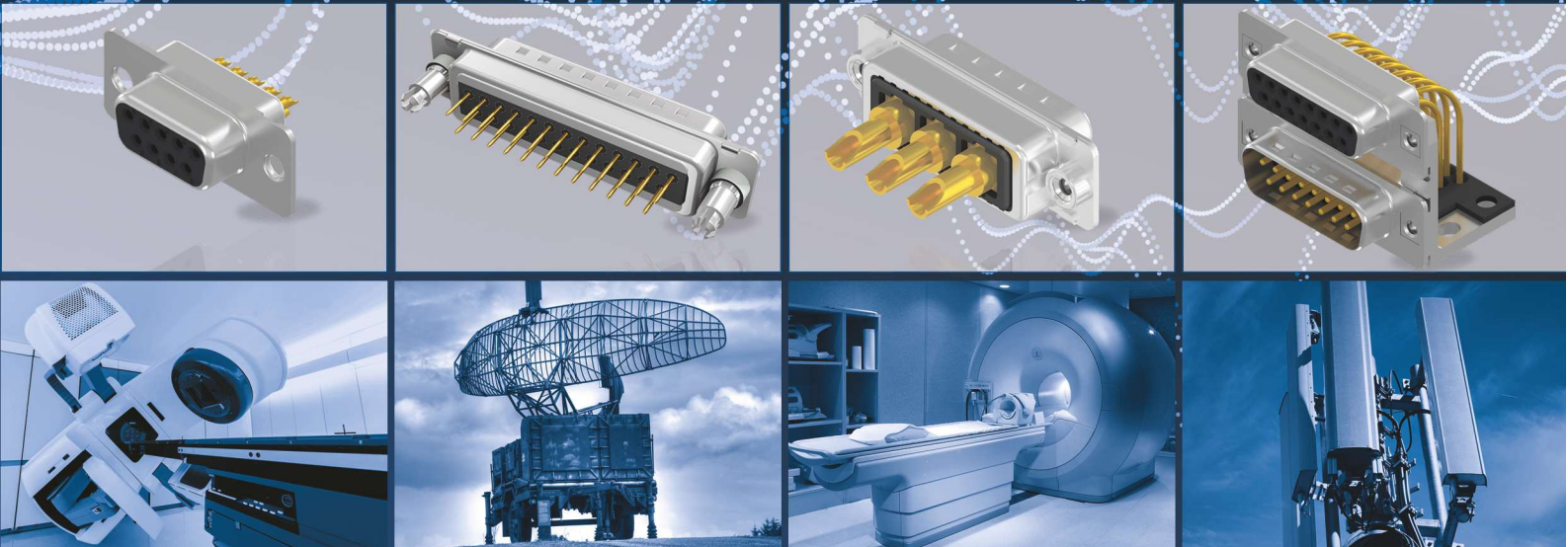
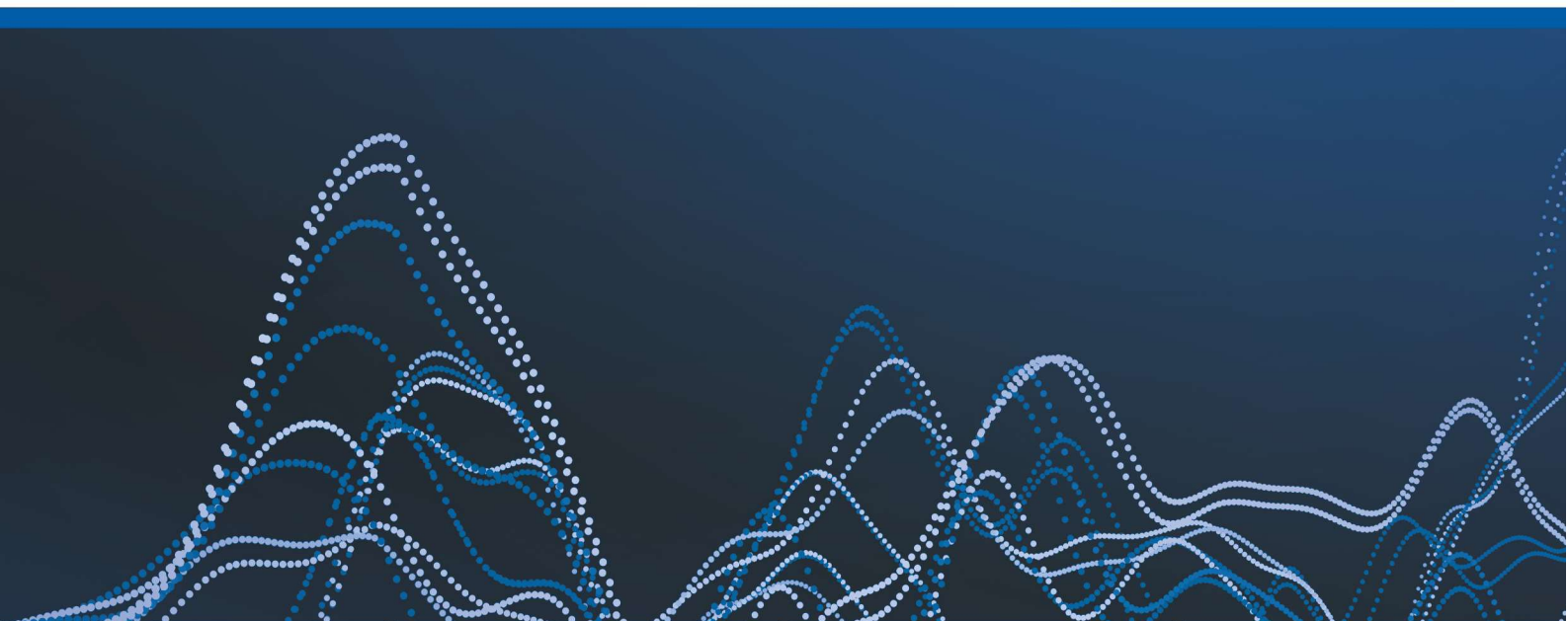
D-SUB FILTER STANDARD/HD | COMBINATION | DUAL PORT | ADAPTER



CONEC®

TECHNOLOGY IN CONNECTORS™

an Amphenol company





TECHNOLOGY IN CONNECTORS™

an Amphenol company

Seit über 40 Jahren entwickelt, produziert und vermarktet die CONEC Elektronische Bauelemente GmbH hochwertige Steckverbinder, Verbindungs- und Anschlussleitungen sowie Gehäusetechnik. CONEC Produkte finden ihren Einsatz in der Automatisierungs-, Telekommunikations- und Energietechnik, im Maschinenbau, der Agrarwirtschaft als auch in der Medizintechnik, dem Transportwesen und der Luftfahrtindustrie.

Das Headquarter in Lippstadt verfügt über eine große Forschungs- und Entwicklungsabteilung, einen eigenen Werkzeugbau, eine CNC Präzisionsdreherei und eine Kunststoffspritzgießerei.

Als Teil der Amphenol Gruppe partizipiert CONEC von den Wachstums- und Entwicklungschancen eines weltweit tätigen Konzerns und agiert gleichzeitig als mittelständisches Unternehmen flexibel und schnell, um sich den wechselnden Kundenbedürfnissen optimal anzupassen.

For more than 40 years, CONEC Elektronische Bauelemente GmbH has been developing, producing and marketing high-quality connectors, connecting 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



Neben einer Vielzahl an Steckverbindern sämtlicher aktueller Standards liegen unsere besonderen Stärken im Bereich der integrierten Umspritzung von Komponenten und Baugruppen sowie in der Entwicklung anwendungsspezifischer Lösungen.

CONEC ist international tätig und mit eigenen Niederlassungen bzw. Produktionsstätten in Kanada, China, Tschechien, Polen, der Slowakei und Mexiko vertreten.

Das Qualitätsmanagementsystem des Unternehmens erfüllt die Anforderungen der internationalen Normen nach DIN EN ISO 9001. CONEC Steckverbinder sind je nach Produktfamilie UL, CSA oder VDE geprüft und zugelassen.

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, China, the Czech Republic, Poland, Slovakia and Mexico.

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

CONEC Czech Republic, Loucka



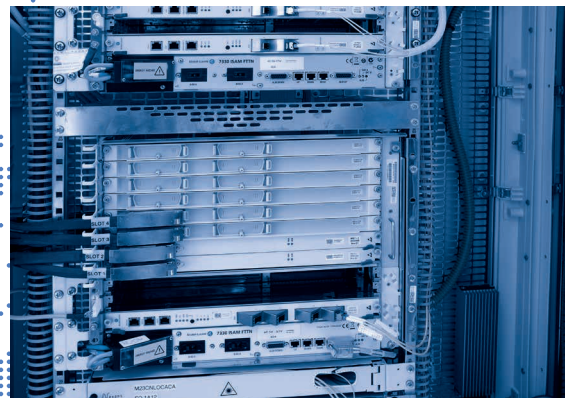
CONEC Canada, Brampton



SECTION 3

FILTER D-SUB CONNECTORS





FILTER D-SUB CONNECTORS

Product specification

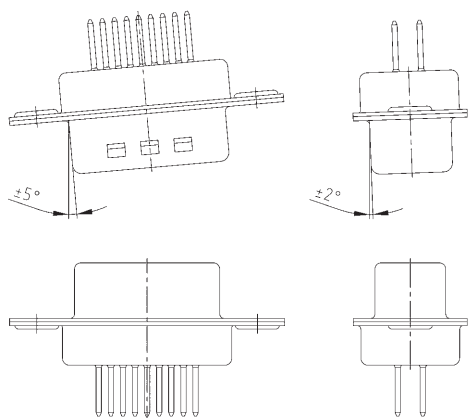
Basic material	Filter D-SUB Standard 9-, 15-, 25-, 37-, 50-pos.	Filter D-SUB High Density 15-, 25-, 44-, 62-, 78-pos.		
Contacts	Copper alloy			
Contact plating	Gold over nickel			
Insulator	PBT GF UL 94 V-O			
Shell	Steel tin plated (on request: brass tin plated)			
Technical data				
Dielectric with standing voltage	• Standard 424 VDC • Standard (T-Filter) 300 VDC • High DWV 707 VDC • Ultra high DWV 1500 VDC * • Ultra high DWV (T-Filter) 1000 VDC * *on request	• Standard 300 VDC		
Working voltage	• Standard 100 VDC* • High DWV 100 VDC* • Ultra high DWV 200 VDC* *Depending on isolation coordination (refer to DIN VDE 0110/IEC 664-1)	• Standard 100 VDC*		
Voltage surge 10/700 µs	• Standard 300 V • High Voltage 500 V	• Standard 300 V		
Current rating	7.5 A (UL) / 5 A (CSA,VDE)	3 A (UL,VDE) 2.5 A (CSA)		
Contact resistance	max. 10 mΩ vor Beanspruchung, Δ R max. 10 mΩ nach Beanspruchung refer to IEC 60807-2			
Insulation resistance	≥ 1GΩ			
Capacitor values	370 pF ± 20 % tolerance 830 pF ± 20 % tolerance 1300 pF ± 20 % tolerance other capacitor values on request	370 pF ± 20 % tolerance 830 pF ± 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. ≤ 30 N 15-pos. ≤ 50 N 25-pos. ≤ 83 N 37-pos. ≤ 123 N 50-pos. ≤ 167 N	15-pos. ≤ 50 N 26-pos. ≤ 83 N 44-pos. ≤ 110 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			
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.

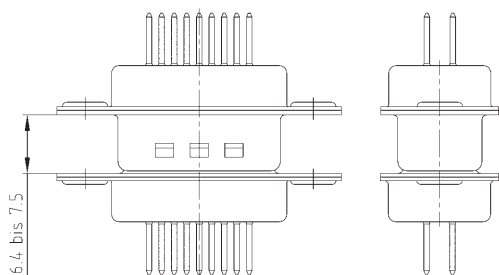
FILTER D-SUB CONNECTORS

Mating conditions

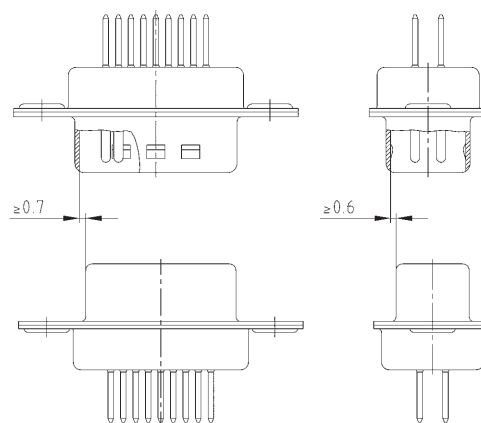
Max. tilt angle for connector mating



Range for safe contact

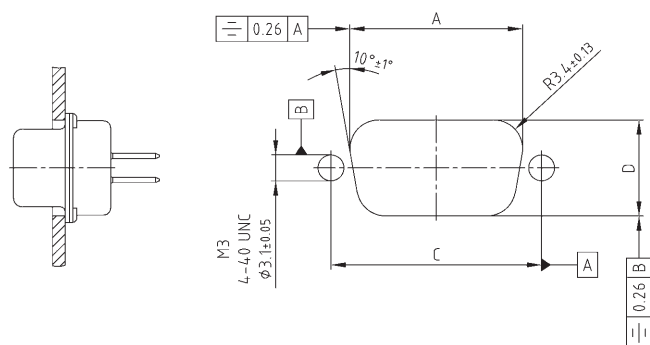


Lock-in range

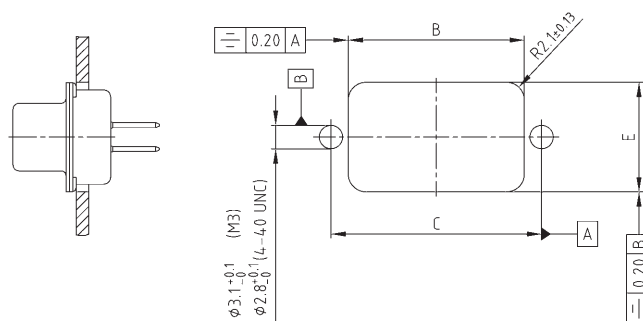


Panel cut-out

Back panel mounting



Front panel mounting

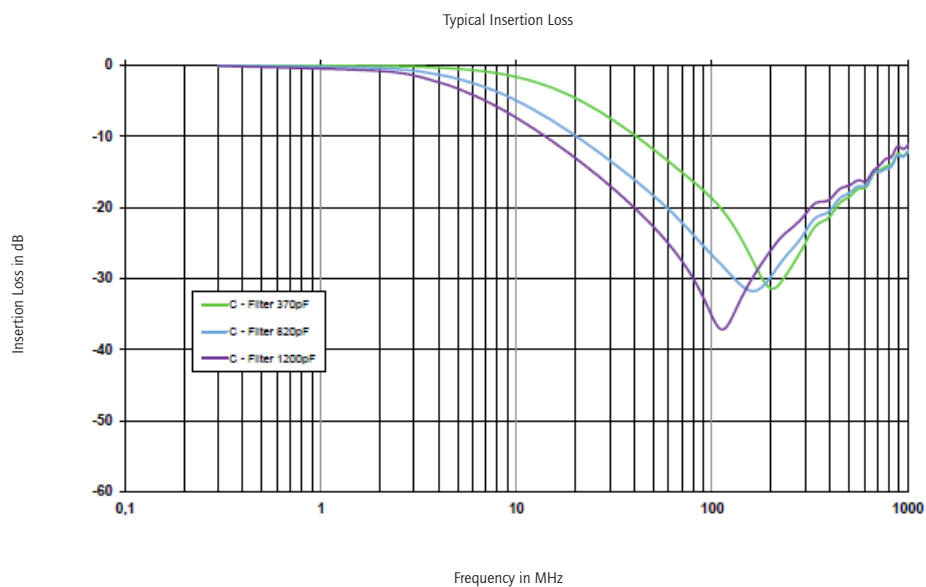


Shell size	No. of poles	A ± 0.1	B ± 0.1	C ± 0.1	D ± 0.1	E ± 0.1
1	9 15	20.50	22.20	25.00	11.40	13.00
2	15 26	28.80	30.50	33.30	11.40	13.00
3	25 44	42.50	44.30	47.04	11.40	13.00
4	37 62	59.10	60.70	63.50	11.40	13.00
5	50 78	56.30	58.30	61.10	14.10	15.80

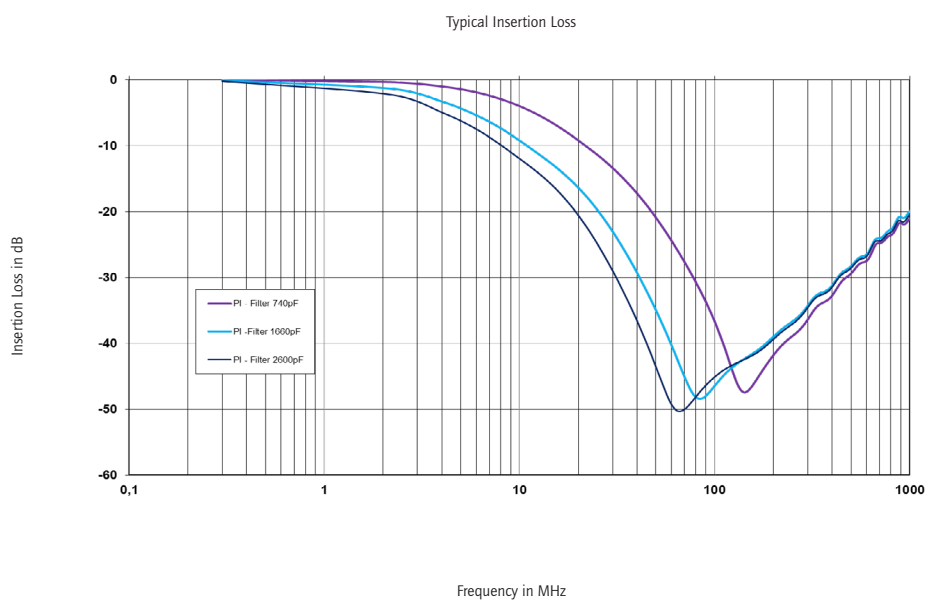
Technical specifications are subject to change without notice.

Insertion loss

C-Filter with chip technology



π -Filter with chip technology



Technical specifications are subject to change without notice.

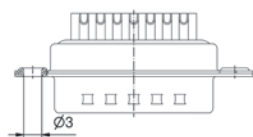
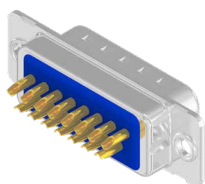
FILTER D-SUB CONNECTORS

C-Filter Standard

Solder cup
Precision machined contacts, AWG 20

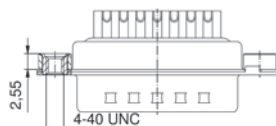
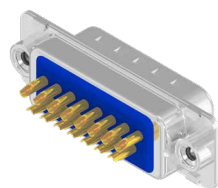
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Brass tin plated or stainless steel
• Quality class 1 (C) = 500 mating cycles
• M3 thread

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

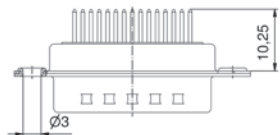
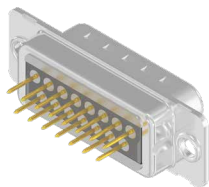
FILTER D-SUB CONNECTORS

C-Filter Standard

Solder pin, straight
Precision machined contacts

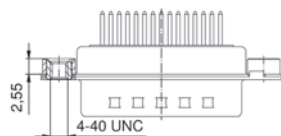
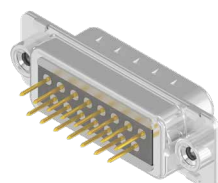
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Brass tin plated or stainless steel
• Quality class 1 (C) = 500 mating cycles
• M3 thread

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

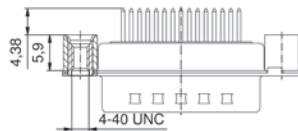
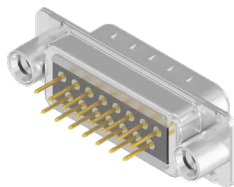
FILTER D-SUB CONNECTORS

C-Filter Standard

Solder pin, straight
Precision machined contacts

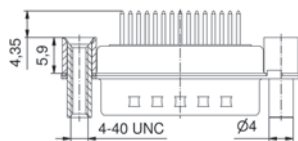
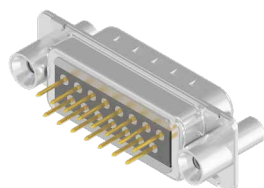
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Brass tin plated or stainless steel
• Quality class 1 (C) = 500 mating cycles
• M3 thread

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

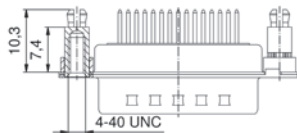
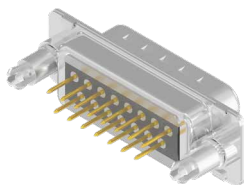
FILTER D-SUB CONNECTORS

C-Filter Standard

Solder pin, straight
Precision machined contacts

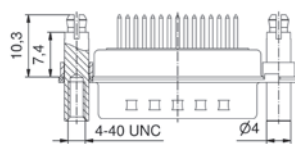
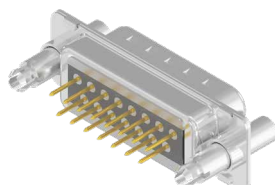
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Brass tin plated or stainless steel
• Quality class 1 (C) = 500 mating cycles
• M3 thread

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

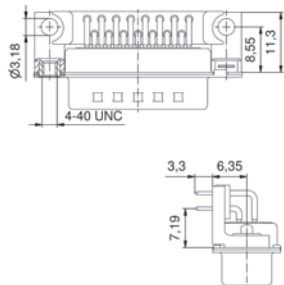
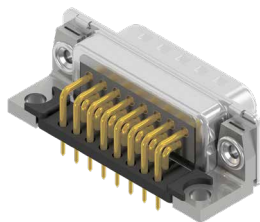
FILTER D-SUB CONNECTORS

C-Filter Standard

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

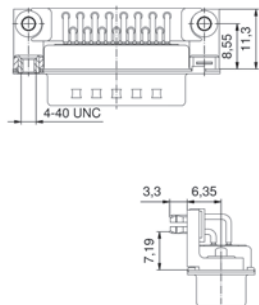
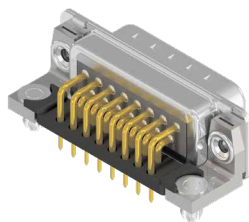
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Brass tin plated or stainless steel
• Quality class 1 (C) = 500 mating cycles
• M3 thread

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

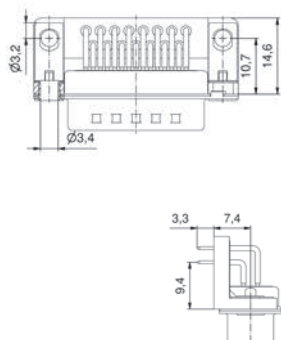
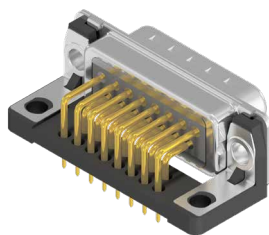
FILTER D-SUB CONNECTORS

C-Filter Standard

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

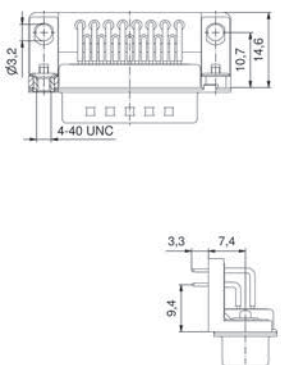
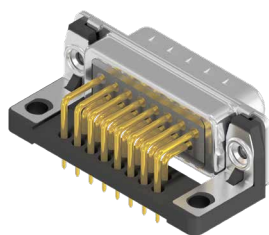
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Brass tin plated or stainless steel
• Quality class 1 (C) = 500 mating cycles
• M3 thread

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

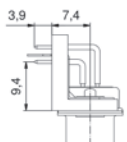
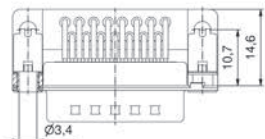
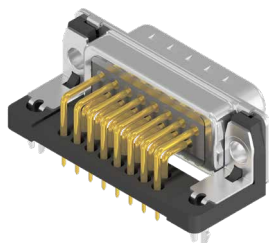
FILTER D-SUB CONNECTORS

C-Filter Standard

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

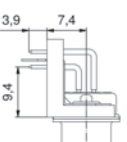
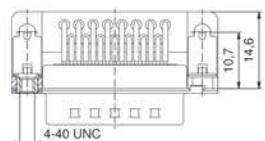
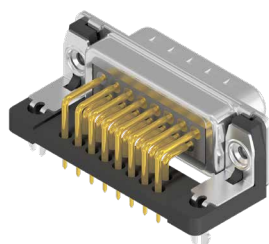
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Brass tin plated or stainless steel
• Quality class 1 (C) = 500 mating cycles
• M3 thread

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

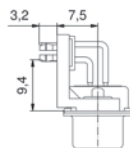
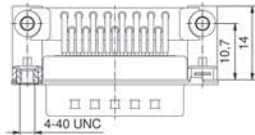
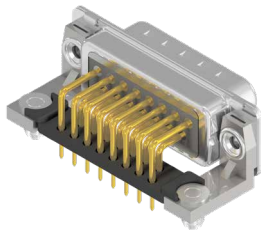
FILTER D-SUB CONNECTORS

C-Filter Standard

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

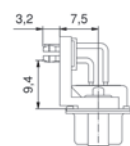
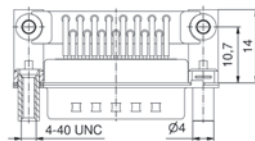
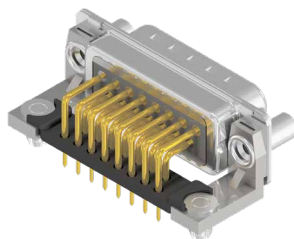
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Brass tin plated or stainless steel
• Quality class 1 (C) = 500 mating cycles
• M3 thread

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	Part No. 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)



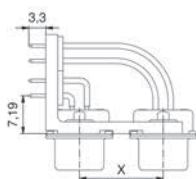
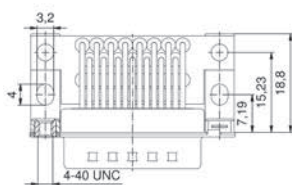
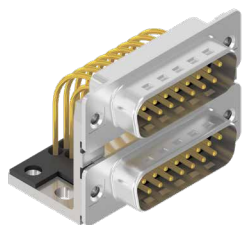
09	75	100	E202784	3	370	24-007893	24-008133
15						24-008043	24-008163
25						24-008013	24-008193
37						24-008073	24-008223
50						24-008999	24-008253
09	75	100	E202784	3	830	24-007903	24-008143
15						24-008053	24-008173
25						24-008023	24-008203
37						24-008083	24-008233
50						24-008103	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

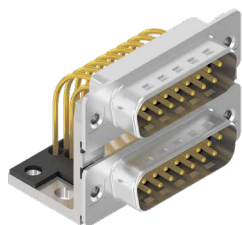
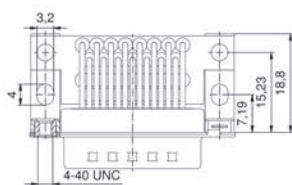
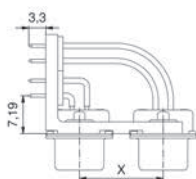
C-Filter Dual Port

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

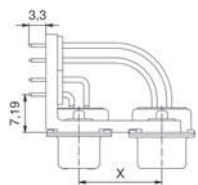
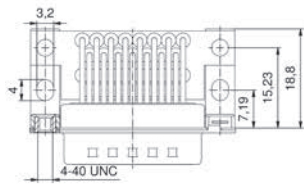
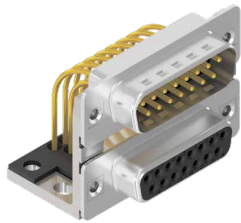
										Part No.
  	No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Connector spacing X = [inches, mm]			24-001883
	15/15	75	100	E202784	3	370	.625,	15.88		24-008283
	25/25									24-004863
	37/37									24-008313
	09/09									24-001893
	15/15	75	100	E202784	3	830	.625,	15.88		24-008293
	25/25									24-004873
	37/37									24-008323
	09/09									24-001903
	15/15	75	100	E202784	3	1300	.625,	15.88		24-008303
	25/25									24-004883
	37/37									24-008333
	09/09									24-008373
	15/15	75	100	E202784	3	370	.750,	19.05		24-008403
	25/25									24-008433
	37/37									24-008463
	09/09									24-008383
	15/15	75	100	E202784	3	830	.750,	19.05		24-008413
	25/25									24-008443
	37/37									24-008473
	09/09									24-008393
	15/15	75	100	E202784	3	1300	.750,	19.05		24-008423
	25/25									24-008453
	37/37									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

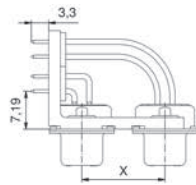
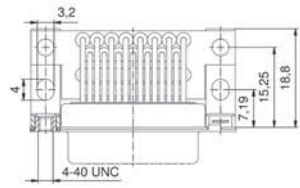
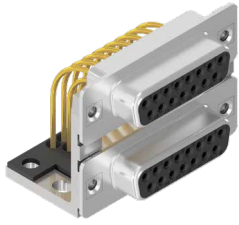
4-40 UNC threaded insert (18)										Part No.
No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Connector spacing X = [inches, mm]				
09/09										24-004153
15/15										24-008493
25/25	75	100	E202784	3	370	.625, 15.88				24-008523
37/37										24-008553
09/09										24-004163
15/15										24-008503
25/25	75	100	E202784	3	830	.625, 15.88				24-008533
37/37										24-008563
09/09										24-004173
15/15										24-008513
25/25	75	100	E202784	3	1300	.625, 15.88				24-008543
37/37										24-008573
09/09										24-00853
15/15										24-008613
25/25	75	100	E202784	3	370	.750, 19.05				24-008643
37/37										24-008673
09/09										24-008593
15/15										24-008623
25/25	75	100	E202784	3	830	.750, 19.05				24-008653
37/37										24-008683
09/09										24-008603
15/15										24-008633
25/25	75	100	E202784	3	1300	.750, 19.05				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

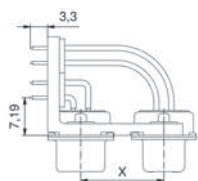
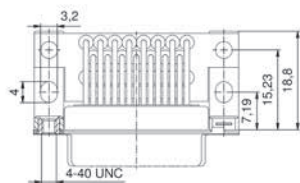
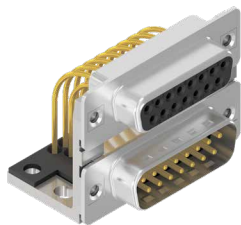
4-40 UNC threaded insert (19)										Part No.
No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Connector spacing X = [inches, mm]				
09/09										24-001603
15/15										24-004353
25/25	75	100	E202784	3	370	.625, 15.88				24-008703
37/37										24-008733
09/09										24-001613
15/15										24-004363
25/25	75	100	E202784	3	830	.625, 15.88				24-008713
37/37										24-008743
09/09										24-001623
15/15										24-004373
25/25	75	100	E202784	3	1300	.625, 15.88				24-008723
37/37										24-008753
09/09										24-003403
15/15										24-008763
25/25	75	100	E202784	3	370	.750, 19.05				24-008793
37/37										24-008823
09/09										24-003413
15/15										24-008773
25/25	75	100	E202784	3	830	.750, 19.05				24-008803
37/37										24-008833
09/09										24-003423
15/15										24-008783
25/25	75	100	E202784	3	1300	.750, 19.05				24-008813
37/37										24-008843

FILTER D-SUB CONNECTORS

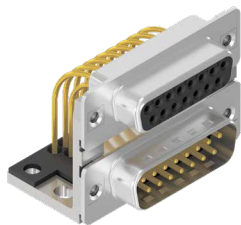
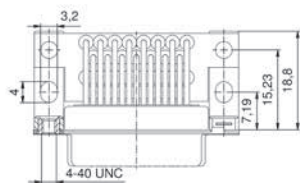
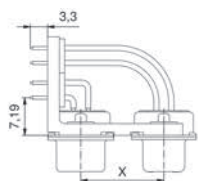
C-Filter Dual Port

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

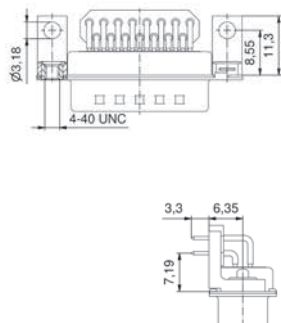
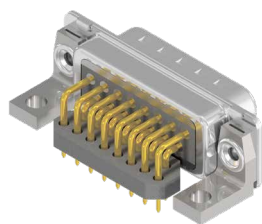
FILTER D-SUB CONNECTORS

LC-Filter Standard

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

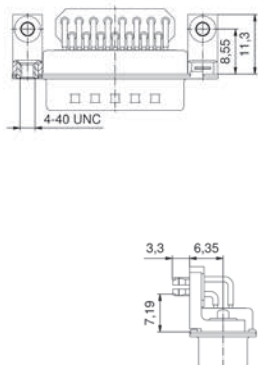
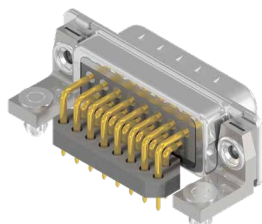
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Brass tin plated or stainless steel
• Quality class 1 (C) = 500 mating cycles
• M3 thread

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

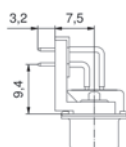
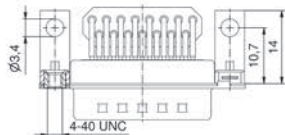
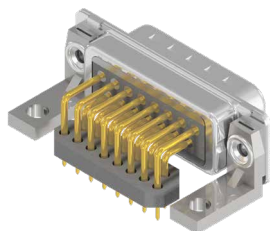
FILTER D-SUB CONNECTORS

LC-Filter Standard

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

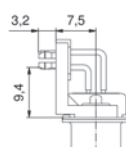
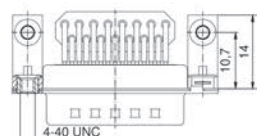
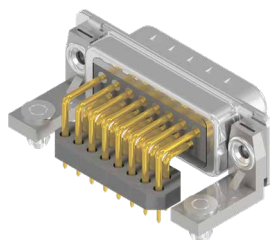
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Brass tin plated or stainless steel
• Quality class 1 (C) = 500 mating cycles
• M3 thread

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

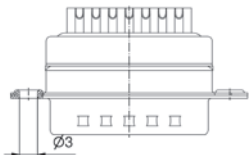
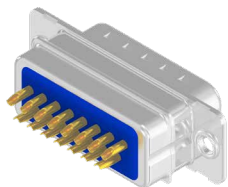
FILTER D-SUB CONNECTORS

π-Filter Standard

Solder cup
Precision machined contacts, AWG 20

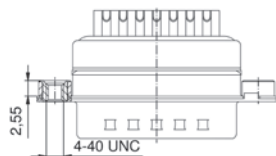
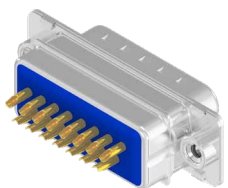
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Brass tin plated or stainless steel
• Quality class 1 (C) = 500 mating cycles
• M3 thread

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)



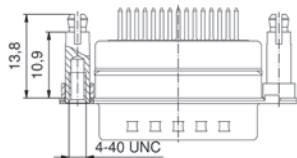
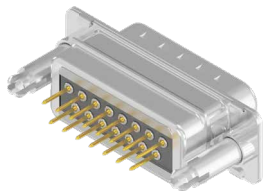
09	75	100	E202784	3	2x 370	24-010023	24-010113
15						24-001323	24-010143
25						24-010053	24-010173
37						24-010083	24-010203
09	75	100	E202784	3	2x 830	24-010033	24-010123
15						24-001333	24-010153
25						24-010063	24-010183
37						24-010093	24-010213
09	75	100	E202784	3	2x 1300	24-010043	24-010133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

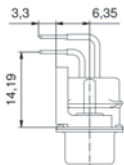
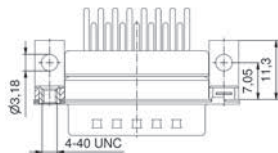
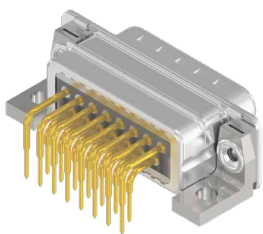
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Brass tin plated or stainless steel
• Quality class 1 (C) = 500 mating cycles
• M3 thread

FILTER D-SUB CONNECTORS

π-Filter Standard

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

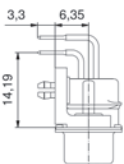
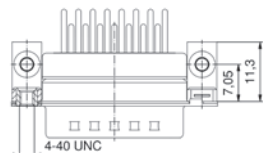
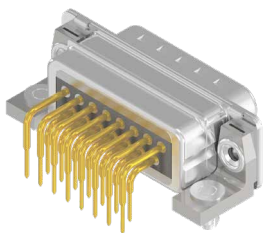
4-40 UNC threaded insert (28)



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

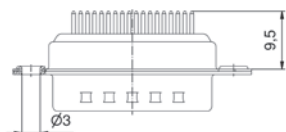
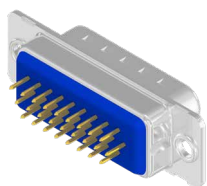
FILTER D-SUB CONNECTORS

C-Filter High Density

Solder pin, straight
Precision machined contacts

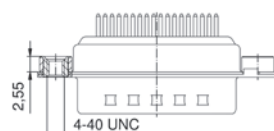
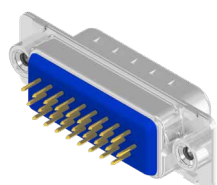
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Brass tin plated or stainless steel
• Quality class 1 (C) = 500 mating cycles
• M3 thread

Through-hole Ø 3 mm (30)



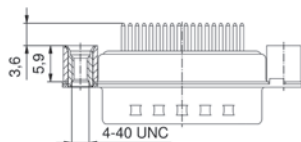
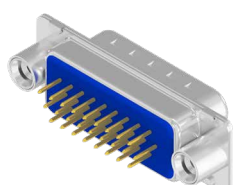
No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
15	3	100	E202784	3	370	24-003903	24-003833
26						24-010683	24-010743
44						24-010703	24-010763
62						24-010723	24-010783
15	3	100	E202784	3	830	24-003913	24-003842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

4-40 UNC threaded insert (31)



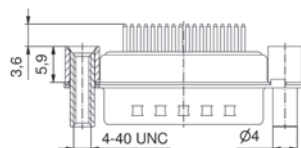
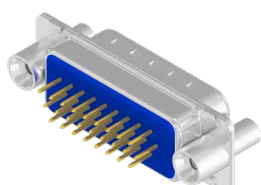
15	3	100	E202784	3	370	24-004613	24-004413
26						24-004333	24-003553
44						24-010803	24-010843
62						24-010823	24-010863
15	3	100	E202784	3	830	24-004623	24-004423
26						24-004343	24-003563
44						24-010813	24-010853
62						24-010833	24-010873

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)

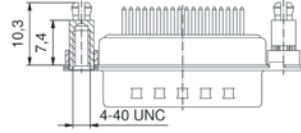
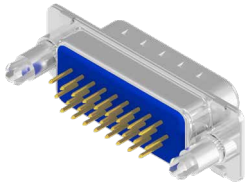


15	3	100	E202784	3	370	24-003463	24-011063
26						24-003533	24-011083
44						24-003513	24-011103
62						24-011043	24-011123
15	3	100	E202784	3	830	24-003473	24-011073
26						24-003543	24-011093
44						24-003523	24-011113
62						24-011053	24-011133

FILTER D-SUB CONNECTORS C-Filter High Density

Solder pin, straight
Precision machined contacts

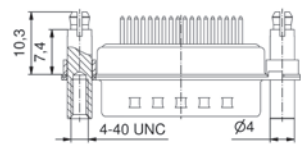
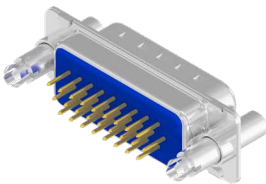
4-40 UNC threaded rear spacer clip for PCB 1.6 mm (34)



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)

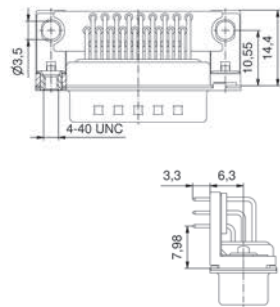
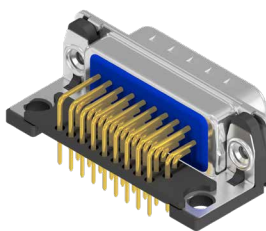


15	3	100	E202784	3	370	24-004923	24-011333
26						24-011273	24-011353
44						24-011293	24-011373
62						24-011313	24-011393
15	3	100	E202784	3	830	24-004933	24-011343
26						24-011283	24-011363
44						24-011303	24-011383
62						24-011323	24-011403

FILTER D-SUB CONNECTORS C-Filter High Density

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

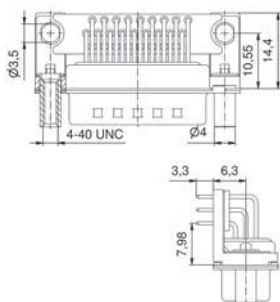
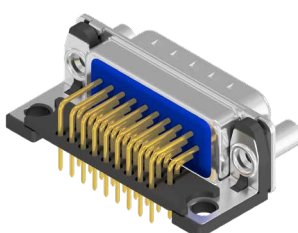
Grounding strap, 4-40 UNC threaded insert (36)



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)

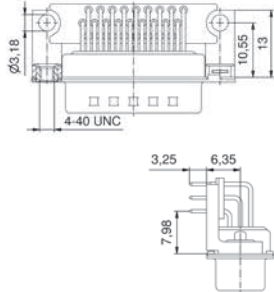
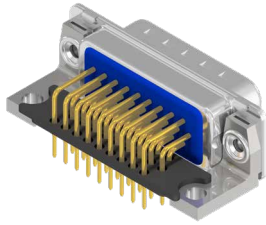


15	3	100	E202784	3	370	24-011573	24-011653
26						24-011593	24-011673
44						24-011613	24-011693
62						24-011633	24-011713
15	3	100	E202784	3	830	24-011583	24-011663
26						24-011603	24-011683
44						24-011623	24-011703
62						24-011643	24-011723

FILTER D-SUB CONNECTORS C-Filter High Density

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

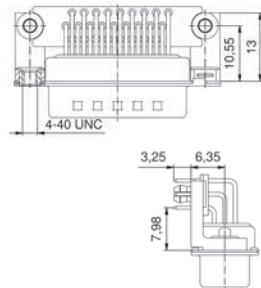
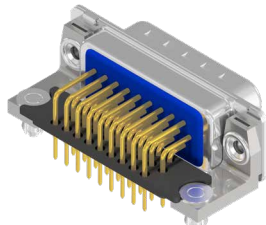
4-40 UNC threaded insert (38)



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

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 (39)

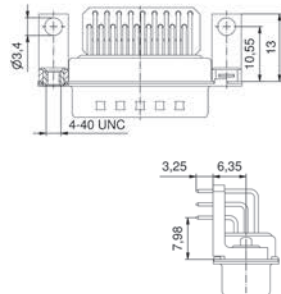
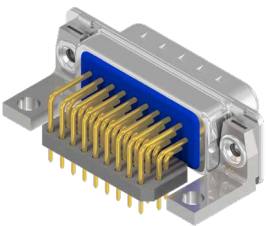


15	3	100	E202784	3	370	24-011853	24-005383
26						24-003853	24-011893
44						24-004983	24-005003
62						24-011873	24-011913
15	3	100	E202784	3	830	24-011863	24-005393
26						24-003863	24-011903
44						24-004993	24-005013
62						24-011883	24-011923

FILTER D-SUB CONNECTORS LC-Filter High Density

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

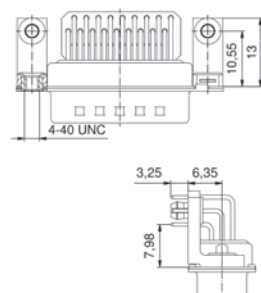
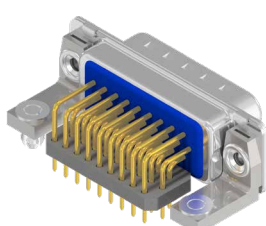
4-40 UNC threaded insert (40)



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

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 (41)



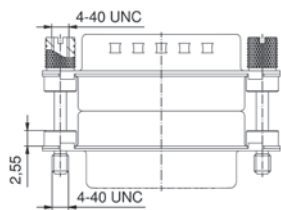
15	3	100	E202784	3	370	24-011953	24-012033
26						24-011973	24-012053
44						24-011993	24-004843
62						24-012013	24-012073
15	3	100	E202784	3	830	24-011963	24-012043
26						24-011983	24-012063
44						24-012003	24-004853
62						24-012023	24-012083

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

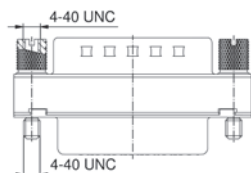
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Quality class 1 (C) = 500 mating cycles
• M3 jack screw

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	75	100	E202784	3	830	24-004273
09						24-001693
15						24-003673
25						24-002163
37	75	100	E202784	3	1300	24-012193
50						24-004283
09						24-001633
15						24-003683
25	75	100	E202784	3	1300	24-002173
37						24-012203
50						24-004293

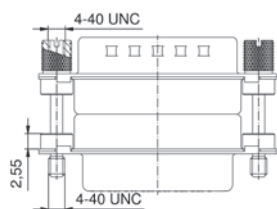
Shell: Steel tin plated
Quality class 3 (A) = 50 mating cycles
On request:
• Quality class 1 (C) = 500 mating cycles
• M3 jack screw

FILTER D-SUB CONNECTORS

π-Filter Full Metal Adapter

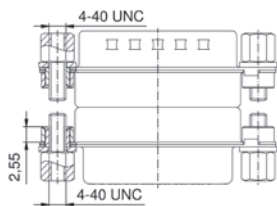
Socket connector - Plug connector
Precision machined contacts

4-40 UNC jack screw (44)



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)



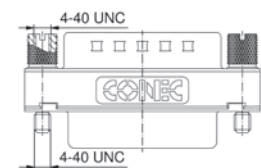
09	75	100	E202784	3	2x 370	24-001573
15						24-003073
25						24-004303
37						24-012243
09	75	100	E202784	3	2x 830	24-001583
15						24-003083
25						24-004313
37						24-012253
09	75	100	E202784	3	2x 1300	24-001593
15						24-003093
25						24-004323
37						24-012263

FILTER D-SUB CONNECTORS

C-Filter Adapter High Density

Socket connector - Plug connector, low profile
Precision machined contacts

4-40 UNC jack screw (46)



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

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

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

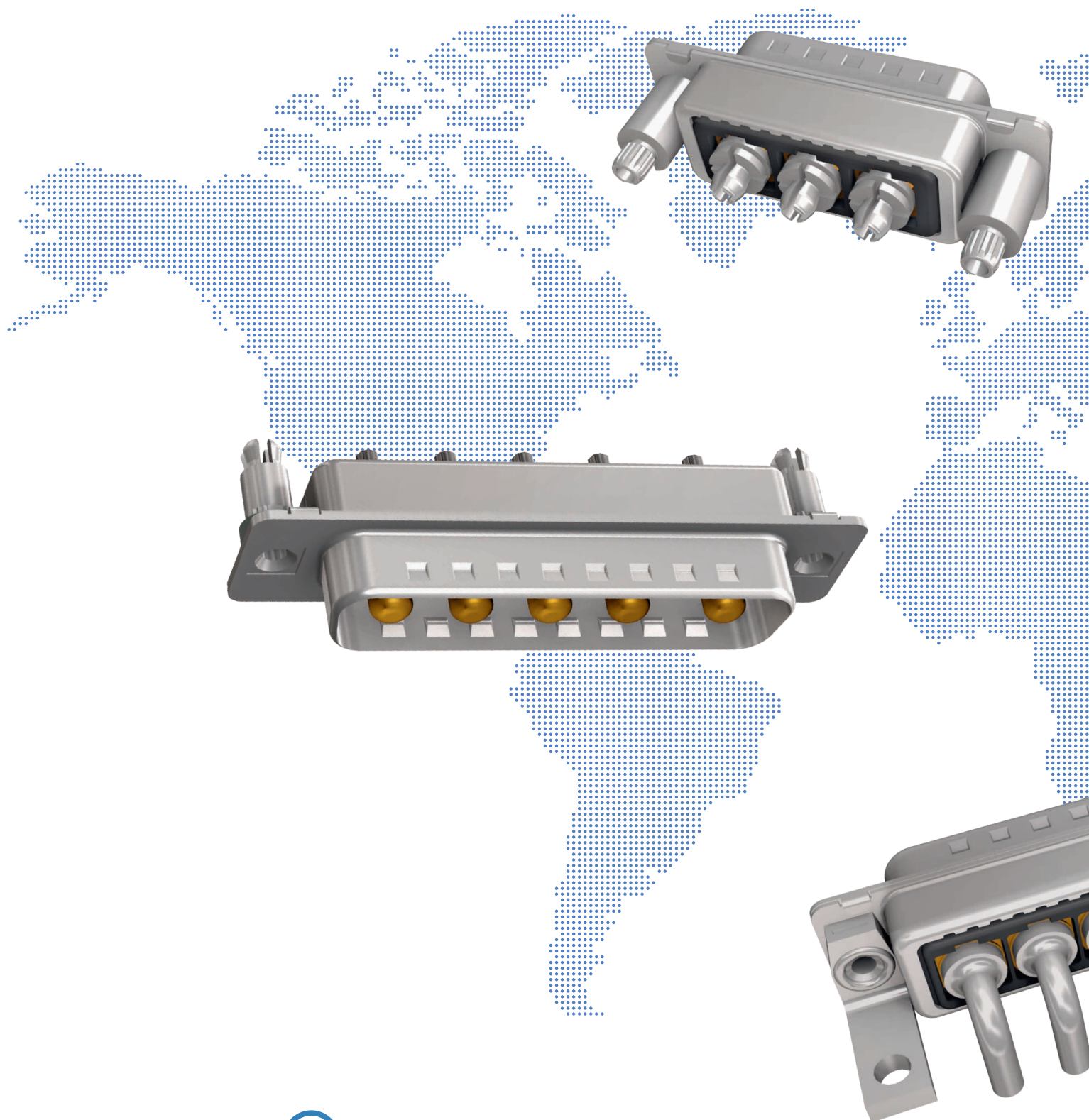
EMI/RFI shielding frames

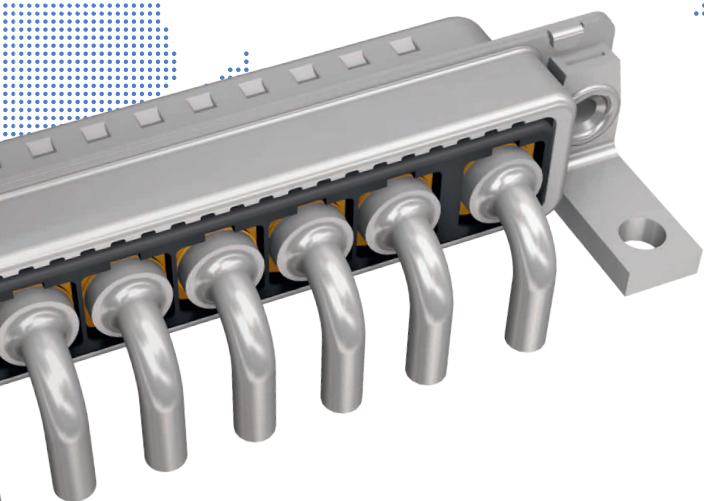
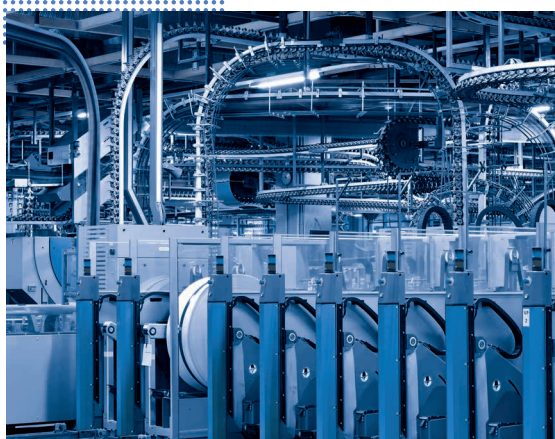
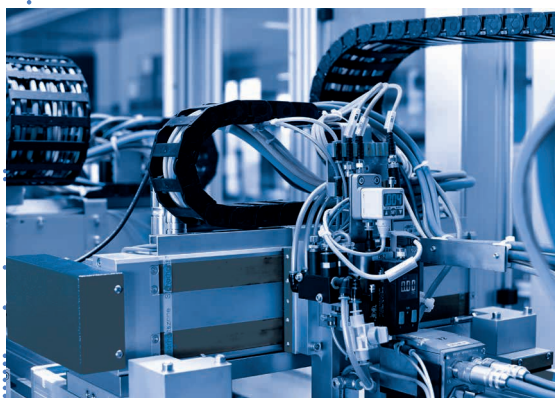
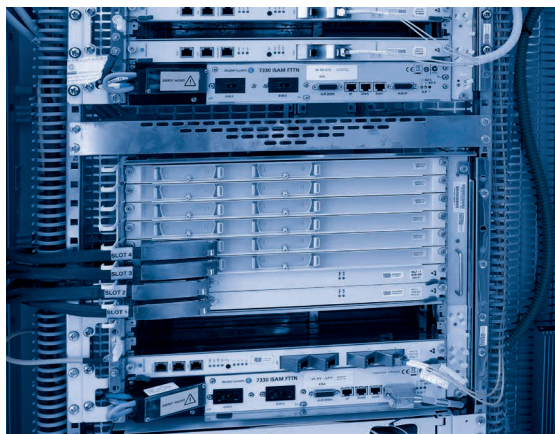
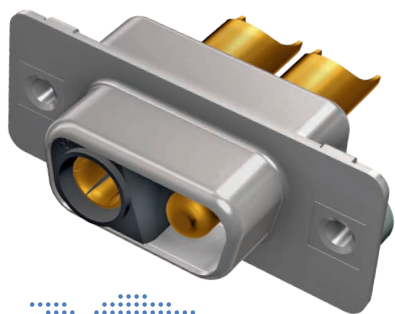
- *Material: Stainless steel*
- *For improved ground contact*
- *Suitable for assembly to the mating side*

		Shel	No.	No.	Mea	Mea	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

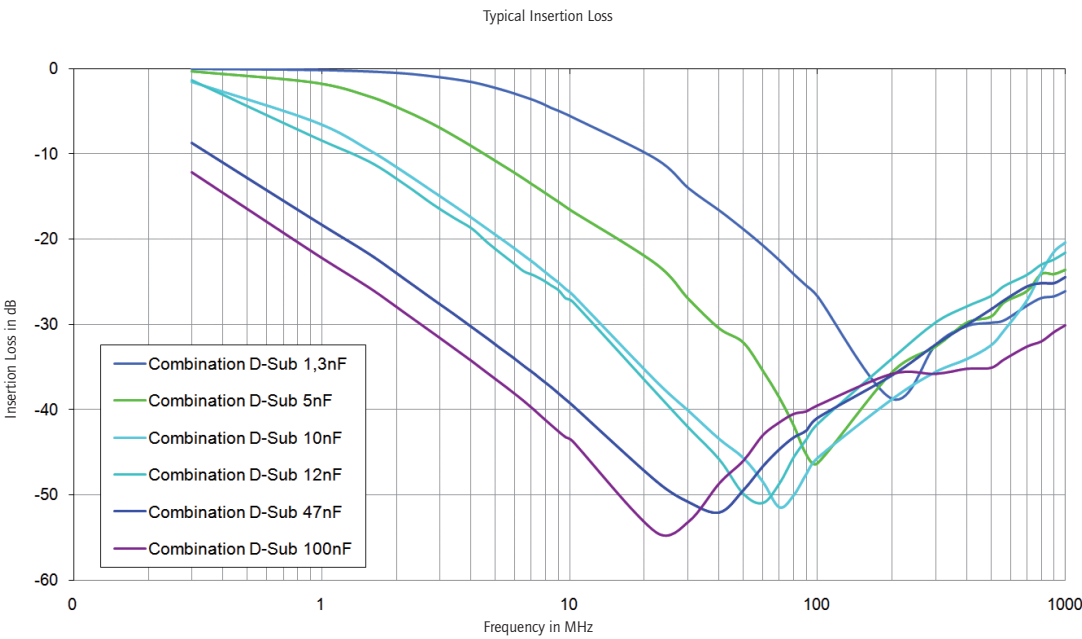
Basic Material	Variations 2W2C – 3W3C – 3W3 – 5W5 – 8W8			
Contacts	CU alloy			
Contact plating	Mating area gold plated over nickel / termination area tin or gold plated			
Insulator	PBT GF UL 94 V-0			
Shell	Steel tin plated			
Technical Data				
Dielectric with standing voltage	Standard DWV	707 VDC		
	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

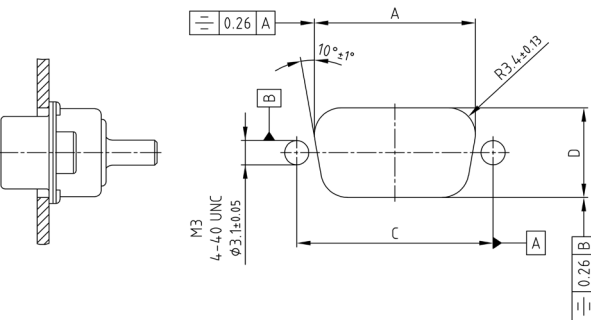
Insertion loss

C-Filter

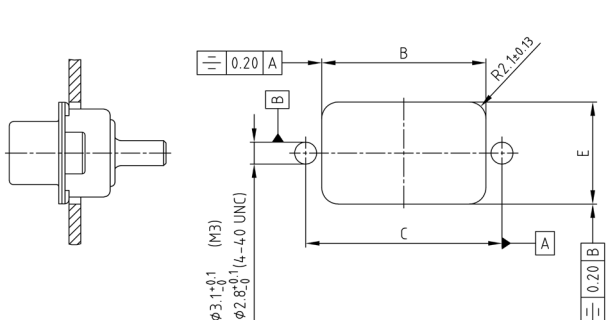


Panel cut-out

Back panel mounting



Front panel mounting



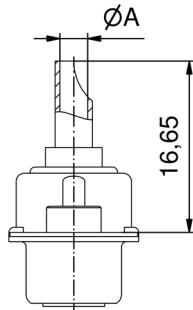
Shell size	Layout	A ± 0.1	B ± 0.1	C ± 0.1	D ± 0.1	E ± 0.1
1	2W2C	20.50	20.90	25.00	11.40	13.00
2	3W3S, 3W3C	28.80	29.20	33.30	11.40	13.00
3	5W5S	42.50	42.90	47.04	11.40	13.00
4	8W8S	59.10	59.40	63.50	11.40	13.00

Technical specifications are subject to change without notice.

FILTER COMBINATION D-SUB CONNECTORS

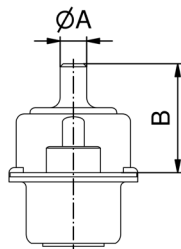
Termination code high power contacts

Solder cup



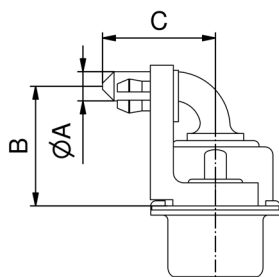
Termination Code	Current rating	AWG	Ø A [mm]
41	10 A	16-20	1.80
42	20 A	12-14	2.70
43	30 A	10-12	3.50
44	40 A	8-10	4.80

Solder pin straight



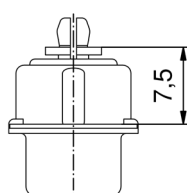
Termination Code	Current rating	Ø A [mm]	B ± 0.3 [mm]	PCB thickness [mm]	Hole diameter in PCB [mm]
48	20 A	1.95	9.65	1.6	2.30 ± 0.1
49	20 A	2.60	10.65	1.6	3.00 ± 0.1
50	20 A	2.85	10.05	1.6	3.20 ± 0.1
51	30 A	3.18	12.85	1.6/2.3/3.2	3.60 ± 0.1
52	40 A	3.75	11.10	1.6/2.3/3.2	4.10 ± 0.1

Solder pin angled

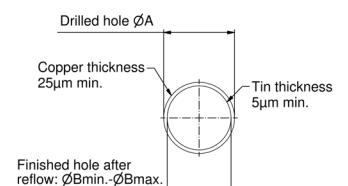


Termination Code	Current rating	Ø A [mm]	B ± 0.3 [mm]	C ± 0.3 [mm]	Hole diameter in PCB [mm]
56	20 A	2.85	11.65	11.00	3.20 ± 0.1
57	30 A	3.18	20.35	9.50	3.60 ± 0.1
58	40 A	3.75	11.65	11.00	4.10 ± 0.1

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

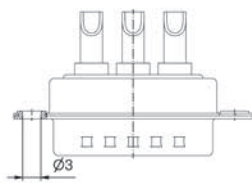
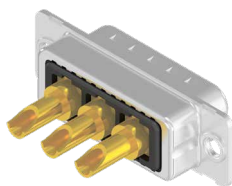


Technical specifications are subject to change without notice.

FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder cup
Precision machined contacts, AWG 8-20

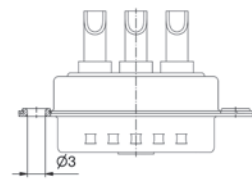
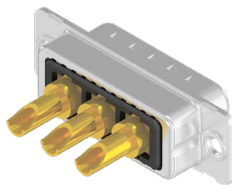
Through-hole Ø 3 mm



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

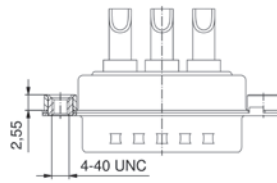
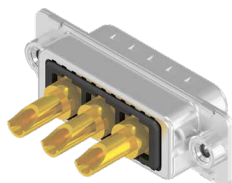
Through-hole Ø 3 mm, coded version



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

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

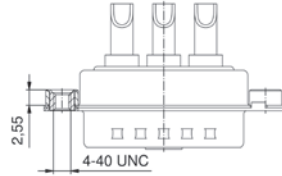
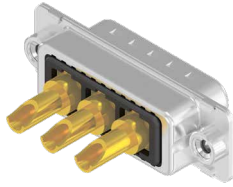
No. of poles	Current rating [A]	Working voltage [VDC]	AWG	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
3W3	10	100	16-20	47	E228329	3	3F3SSA22S41A10X	3F3SPA22S41A10X
	20		12-14				3F3SSA22S42A10X	3F3SPA22S42A10X
	30		10-12				3F3SSA22S43A10X	3F3SPA22S43A10X
	40		8-10				3F3SSA22S44A10X	3F3SPA22S44A10X
5W5	10	100	16-20	47	E228329	3	5F5SSA22S41A10X	5F5SPA22S41A10X
	20		12-14				5F5SSA22S42A10X	5F5SPA22S42A10X
	30		10-12				5F5SSA22S43A10X	5F5SPA22S43A10X
	40		8-10				5F5SSA22S44A10X	5F5SPA22S44A10X
8W8	10	100	16-20	47	E228329	3	8F8SSA22S41A10X	8F8SPA22S41A10X
	20		12-14				8F8SSA22S42A10X	8F8SPA22S42A10X
	30		10-12				8F8SSA22S43A10X	8F8SPA22S43A10X
	40		8-10				8F8SSA22S44A10X	8F8SPA22S44A10X
2W2C	10	100	16-20	47	E228329	3	2F2CSA22S41A10X	2F2CPA22S41A10X
	20		12-14				2F2CSA22S42A10X	2F2CPA22S42A10X
	30		10-12				2F2CSA22S43A10X	2F2CPA22S43A10X
	40		8-10				2F2CSA22S44A10X	2F2CPA22S44A10X
3W3C	10	100	16-20	47	E228329	3	3F3CSA22S41A10X	3F3CPA22S41A10X
	20		12-14				3F3CSA22S42A10X	3F3CPA22S42A10X
	30		10-12				3F3CSA22S43A10X	3F3CPA22S43A10X
	40		8-10				3F3CSA22S44A10X	3F3CPA22S44A10X
3W3	10	100	16-20	47	E228329	3	3F3SSA22S41A30X	3F3SPA22S41A30X
	20		12-14				3F3SSA22S42A30X	3F3SPA22S42A30X
	30		10-12				3F3SSA22S43A30X	3F3SPA22S43A30X
	40		8-10				3F3SSA22S44A30X	3F3SPA22S44A30X
5W5	10	100	16-20	47	E228329	3	5F5SSA22S41A30X	5F5SPA22S41A30X
	20		12-14				5F5SSA22S42A30X	5F5SPA22S42A30X
	30		10-12				5F5SSA22S43A30X	5F5SPA22S43A30X
	40		8-10				5F5SSA22S44A30X	5F5SPA22S44A30X
8W8	10	100	16-20	47	E228329	3	8F8SSA22S41A30X	8F8SPA22S41A30X
	20		12-14				8F8SSA22S42A30X	8F8SPA22S42A30X
	30		10-12				8F8SSA22S43A30X	8F8SPA22S43A30X
	40		8-10				8F8SSA22S44A30X	8F8SPA22S44A30X

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

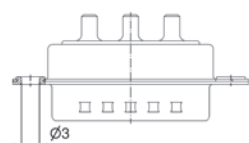
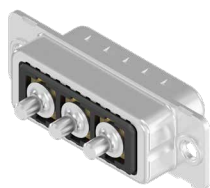
No. of poles	Current rating [A]	Working voltage [VDC]	AWG	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C	10	16-20	100	47	E228329	3	2F2CSA22S41A30X	2F2CPA22S41A30X
	20	12-14					2F2CSA22S42A30X	2F2CPA22S42A30X
	30	10-12					2F2CSA22S43A30X	2F2CPA22S43A30X
	40	8-10					2F2CSA22S44A30X	2F2CPA22S44A30X
3W3C	10	16-20	100	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

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

Through-hole Ø 3 mm

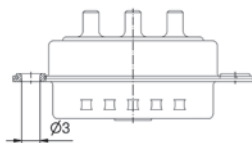


For other capacitance values refer
to the part number creator.

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

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	47	E228329	3	3F3SSA22S48A10X	3F3SPA22S48A10X
		2.60					3F3SSA22S49A10X	3F3SPA22S49A10X
	30	2.85					3F3SSA22S50A10X	3F3SPA22S50A10X
		3.18					3F3SSA22S51A10X	3F3SPA22S51A10X
		3.75					3F3SSA22S52A10X	3F3SPA22S52A10X
5W5	20	1.95	100	47	E228329	3	5F5SSA22S48A10X	5F5SPA22S48A10X
		2.60					5F5SSA22S49A10X	5F5SPA22S49A10X
	30	2.85					5F5SSA22S50A10X	5F5SPA22S50A10X
		3.18					5F5SSA22S51A10X	5F5SPA22S51A10X
		3.75					5F5SSA22S52A10X	5F5SPA22S52A10X
8W8	20	1.95	100	47	E228329	3	8F8SSA22S48A10X	8F8SPA22S48A10X
		2.60					8F8SSA22S49A10X	8F8SPA22S49A10X
	30	2.85					8F8SSA22S50A10X	8F8SPA22S50A10X
		3.18					8F8SSA22S51A10X	8F8SPA22S51A10X
		3.75					8F8SSA22S52A10X	8F8SPA22S52A10X

Through-hole Ø 3 mm, coded version



For other capacitance values refer
to the part number creator.

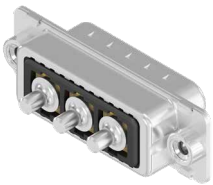
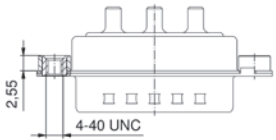
Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

2W2C	20	1.95	100	47	E228329	3	2F2CSA22S48A10X	2F2CPA22S48A10X
		2.60					2F2CSA22S49A10X	2F2CPA22S49A10X
	30	2.85					2F2CSA22S50A10X	2F2CPA22S50A10X
		3.18					2F2CSA22S51A10X	2F2CPA22S51A10X
		3.75					2F2CSA22S52A10X	2F2CPA22S52A10X
3W3C	20	1.95	100	47	E228329	3	3F3CSA22S48A10X	3F3CPA22S48A10X
		2.60					3F3CSA22S49A10X	3F3CPA22S49A10X
	30	2.85					3F3CSA22S50A10X	3F3CPA22S50A10X
		3.18					3F3CSA22S51A10X	3F3CPA22S51A10X
		3.75					3F3CSA22S52A10X	3F3CPA22S52A10X

FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin straight
Precision machined contacts

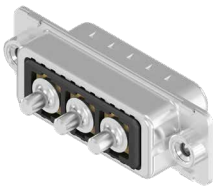
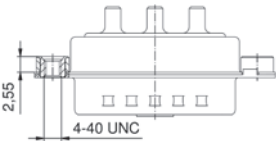
4-40 UNC threaded insert

		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	47	E228329	3	3F3SSA22S48A30X	3F3SPA22S48A30X
				2.60					3F3SSA22S49A30X	3F3SPA22S49A30X
		30		2.85					3F3SSA22S50A30X	3F3SPA22S50A30X
				3.18					3F3SSA22S51A30X	3F3SPA22S51A30X
				3.75					3F3SSA22S52A30X	3F3SPA22S52A30X
	5W5	20		1.95	100	47	E228329	3	5F5SSA22S48A30X	5F5SPA22S48A30X
				2.60					5F5SSA22S49A30X	5F5SPA22S49A30X
		30		2.85					5F5SSA22S50A30X	5F5SPA22S50A30X
				3.18					5F5SSA22S51A30X	5F5SPA22S51A30X
				3.75					5F5SSA22S52A30X	5F5SPA22S52A30X
	8W8	20		1.95	100	47	E228329	3	8F8SSA22S48A30X	8F8SPA22S48A30X
				2.60					8F8SSA22S49A30X	8F8SPA22S49A30X
		30		2.85					8F8SSA22S50A30X	8F8SPA22S50A30X
				3.18					8F8SSA22S51A30X	8F8SPA22S51A30X
				3.75					8F8SSA22S52A30X	8F8SPA22S52A30X

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

 	2W2C	20		1.95	100	47	E228329	3	2F2CSA22S48A30X	2F2CPA22S48A30X
				2.60					2F2CSA22S49A30X	2F2CPA22S49A30X
		30		2.85					2F2CSA22S50A30X	2F2CPA22S50A30X
				3.18					2F2CSA22S51A30X	2F2CPA22S51A30X
				3.75					2F2CSA22S52A30X	2F2CPA22S52A30X
	3W3C	20		1.95	100	47	E228329	3	3F3CSA22S48A30X	3F3CPA22S48A30X
				2.60					3F3CSA22S49A30X	3F3CPA22S49A30X
		30		2.85					3F3CSA22S50A30X	3F3CPA22S50A30X
				3.18					3F3CSA22S51A30X	3F3CPA22S51A30X
				3.75					3F3CSA22S52A30X	3F3CPA22S52A30X

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

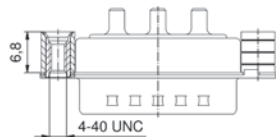
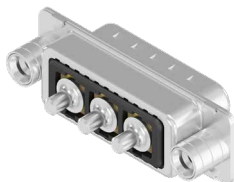
Shell: Steel tin plated
Quality class: 3 (A) = 50 mating cycles
On request:
• higher DWV
• Quality class: 1 (C) = 500 mating cycles
• M3 thread

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

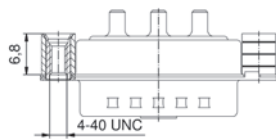
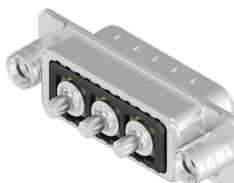


For other capacitance values refer
to the part number creator.

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
3W3	20	1.95	100	47	E228329	3	3F3SSA22S48A50X	3F3SPA22S48A50X
		2.60					3F3SSA22S49A50X	3F3SPA22S49A50X
	30	2.85					3F3SSA22S50A50X	3F3SPA22S50A50X
		3.18					3F3SSA22S51A50X	3F3SPA22S51A50X
		3.75					3F3SSA22S52A50X	3F3SPA22S52A50X
5W5	20	1.95	100	47	E228329	3	5F5SSA22S48A50X	5F5SPA22S48A50X
		2.60					5F5SSA22S49A50X	5F5SPA22S49A50X
	30	2.85					5F5SSA22S50A50X	5F5SPA22S50A50X
		3.18					5F5SSA22S51A50X	5F5SPA22S51A50X
		3.75					5F5SSA22S52A50X	5F5SPA22S52A50X
8W8	20	1.95	100	47	E228329	3	8F8SSA22S48A50X	8F8SPA22S48A50X
		2.60					8F8SSA22S49A50X	8F8SPA22S49A50X
	30	2.85					8F8SSA22S50A50X	8F8SPA22S50A50X
		3.18					8F8SSA22S51A50X	8F8SPA22S51A50X
		3.75					8F8SSA22S52A50X	8F8SPA22S52A50X

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

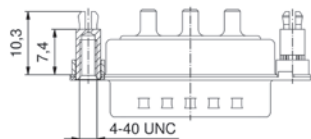
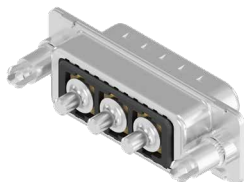
2W2C	20	1.95	100	47	E228329	3	2F2CSA22S48A50X	2F2CPA22S48A50X
		2.60					2F2CSA22S49A50X	2F2CPA22S49A50X
	30	2.85					2F2CSA22S50A50X	2F2CPA22S50A50X
		3.18					2F2CSA22S51A50X	2F2CPA22S51A50X
		3.75					2F2CSA22S52A50X	2F2CPA22S52A50X
3W3C	20	1.95	100	47	E228329	3	3F3CSA22S48A50X	3F3CPA22S48A50X
		2.60					3F3CSA22S49A50X	3F3CPA22S49A50X
	30	2.85					3F3CSA22S50A50X	3F3CPA22S50A50X
		3.18					3F3CSA22S51A50X	3F3CPA22S51A50X
		3.75					3F3CSA22S52A50X	3F3CPA22S52A50X

FILTER COMBINATION D-SUB CONNECTORS

C-Filter

Solder pin straight
Precision machined contacts

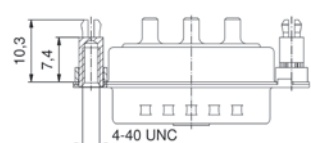
4-40 UNC threaded rear spacer clip for PCB 1.6 mm



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

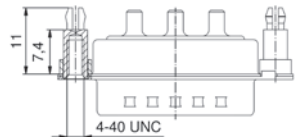
4-40 UNC threaded rear spacer clip for PCB 1.6 mm, coded version



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



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

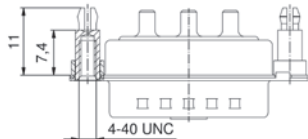
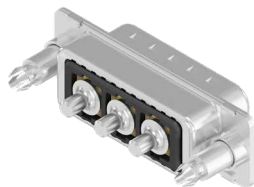
No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
3W3	20	100	1.95	47	E228329	3	3F3SSA22S48E20X	3F3SPA22S48E20X
			2.60				3F3SSA22S49E20X	3F3SPA22S49E20X
	30	100	2.85				3F3SSA22S50E20X	3F3SPA22S50E20X
			3.18				3F3SSA22S51E20X	3F3SPA22S51E20X
			3.75				3F3SSA22S52E20X	3F3SPA22S52E20X
5W5	20	100	1.95	47	E228329	3	5F5SSA22S48E20X	5F5SPA22S48E20X
			2.60				5F5SSA22S49E20X	5F5SPA22S49E20X
	30	100	2.85				5F5SSA22S50E20X	5F5SPA22S50E20X
			3.18				5F5SSA22S51E20X	5F5SPA22S51E20X
			3.75				5F5SSA22S52E20X	5F5SPA22S52E20X
8W8	20	100	1.95	47	E228329	3	8F8SSA22S48E20X	8F8SPA22S48E20X
			2.60				8F8SSA22S49E20X	8F8SPA22S49E20X
	30	100	2.85				8F8SSA22S50E20X	8F8SPA22S50E20X
			3.18				8F8SSA22S51E20X	8F8SPA22S51E20X
			3.75				8F8SSA22S52E20X	8F8SPA22S52E20X
2W2C	20	100	1.95	47	E228329	3	2F2CSA22S48E20X	2F2CPA22S48E20X
			2.60				2F2CSA22S49E20X	2F2CPA22S49E20X
	30	100	2.85				2F2CSA22S50E20X	2F2CPA22S50E20X
			3.18				2F2CSA22S51E20X	2F2CPA22S51E20X
			3.75				2F2CSA22S52E20X	2F2CPA22S52E20X
3W3C	20	100	1.95	47	E228329	3	3F3CSA22S48E20X	3F3CPA22S48E20X
			2.60				3F3CSA22S49E20X	3F3CPA22S49E20X
	30	100	2.85				3F3CSA22S50E20X	3F3CPA22S50E20X
			3.18				3F3CSA22S51E20X	3F3CPA22S51E20X
			3.75				3F3CSA22S52E20X	3F3CPA22S52E20X
3W3	30	100	3.18	47	E228329	3	3F3SSA22S51E40X	3F3SPA22S51E40X
	40		3.75				3F3SSA22S52E40X	3F3SPA22S52E40X
	40	100	3.75				3F3SSA22S52E40X	3F3SPA22S52E40X
5W5	30	100	3.18	47	E228329	3	5F5SSA22S51E40X	5F5SPA22S51E40X
	40		3.75				5F5SSA22S52E40X	5F5SPA22S52E40X
	40	100	3.75				5F5SSA22S52E40X	5F5SPA22S52E40X
8W8	30	100	3.18	47	E228329	3	8F8SSA22S51E40X	8F8SPA22S51E40X
	40		3.75				8F8SSA22S52E40X	8F8SPA22S52E40X
	40	100	3.75				8F8SSA22S52E40X	8F8SPA22S52E40X

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

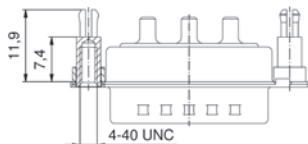
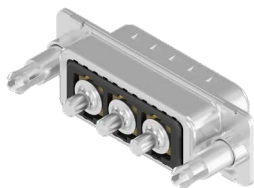


For other capacitance values refer to the part number creator.

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			E228329	3	2F2CSA22S51E40X	2F2CPA22S51E40X
	100			47				
	40	3.75					2F2CSA22S52E40X	2F2CPA22S52E40X
3W3C	30	3.18			E228329	3	3F3CSA22S51E40X	3F3CPA22S51E40X
		100		47				
	40	3.75					3F3CSA22S52E40X	3F3CPA22S52E40X

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

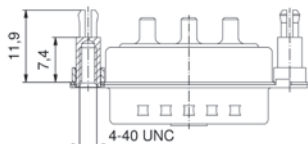
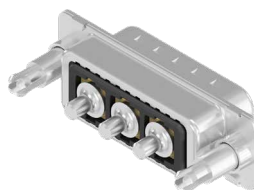


For other capacitance values refer to the part number creator.

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

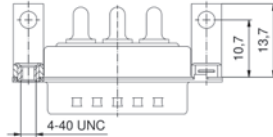
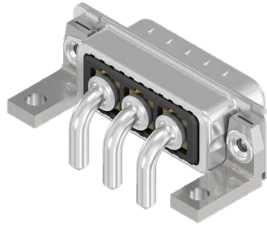
Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

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

FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin angled
Precision machined contacts, metal bracket

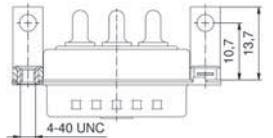
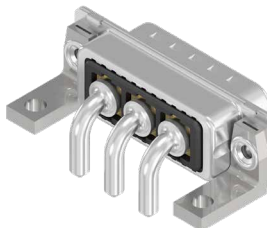
4-40 UNC threaded insert



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

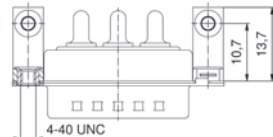
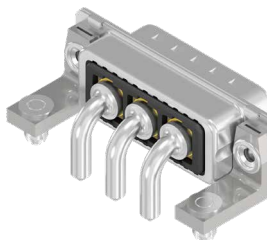
4-40 UNC threaded insert, coded version



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

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

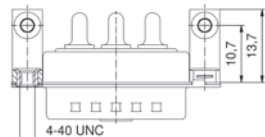
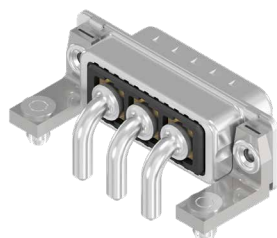
Shell: Steel tin plated
Quality class: 3 (A) = 50 mating cycles
On request:
• higher DWV
• Quality class: 1 (C) = 500 mating cycles
• M3 thread

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
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
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.

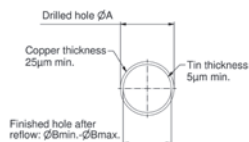
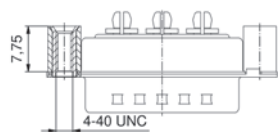
Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

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

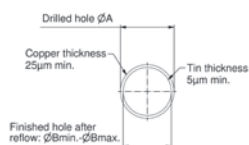
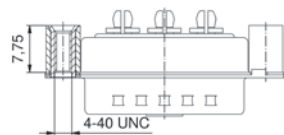
3W3	30	100	3.11	E228329	3	3F3SSA22SP1AA0X	3F3SPA22SP1AA0X
			3.25			3F3SSA22SP2AA0X	3F3SPA22SP2AA0X
			3.20			3F3SSA22SP4AA0X	3F3SPA22SP4AA0X
5W5	30	100	3.11	E228329	3	5F5SSA22SP1AA0X	5F5SPA22SP1AA0X
			3.25			5F5SSA22SP2AA0X	5F5SPA22SP2AA0X
			3.20			5F5SSA22SP4AA0X	5F5SPA22SP4AA0X
8W8	30	100	3.11	E228329	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.

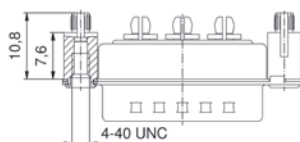
Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

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

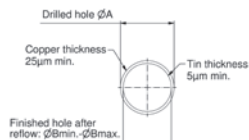
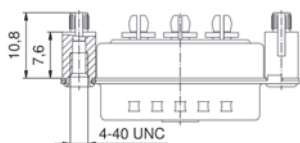
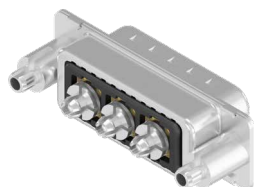
3W3	30	100	3.11	47	E228329	3	3F3SSA22SP1W40X	3F3SPA22SP1W40X
			3.25				3F3SSA22SP2W40X	3F3SPA22SP2W40X
			3.20				3F3SSA22SP4W40X	3F3SPA22SP4W40X
5W5	30	100	3.11	47	E228329	3	5F5SSA22SP1W40X	5F5SPA22SP1W40X
			3.25				5F5SSA22SP2W40X	5F5SPA22SP2W40X
			3.20				5F5SSA22SP4W40X	5F5SPA22SP4W40X
8W8	30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



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	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



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