

38999 Series III classes K & S



Applications

High density connectors for all military and aeronautical purposes

Standards

MIL-C 38999 Series III classes K & S
QPL approved



Description

- High density connector from 1 to 128 contacts
- Sizes 22D, 20, 16, 12, # 16 coax and # 8 triax
- Bayonet locking system
- 100% scoop proof

Characteristics

Mechanical

- Shell : - Stainless steel
- Plating : - Nickel
 - Passivated
- Insulator : thermoplastic
- Grommet and seal : silicone elastomer
- Contact : copper alloy
- Plating : gold over nickel
- Endurance : 500 cycles
- Shock : 300 g during 3 ms and MIL-S901 grade A
- Vibration :
 - sine 10 to 2000 Hz 30 g
 - random 100 to 300 Hz 5 (g²/Hz)
- Contact retention : (mini force in N)
 - size 22 D : 45 N size 20 : 67 N
 - size 16 : 110 N size 12 : 110 N
 - size 8 : 110 N

Electrical

Test voltage (Vrms)

Service	sea level	at 21000 m
M	1300	800
I	1800	1000
II	2300	1000

- Contact resistance :
resistance of wire included in measurement :
 - size 22D : 14.6 mΩ size 20 : 7.3 mΩ
 - size 16 : 3.8 mΩ size 12 : 1.7 mΩ
- Insulation resistance :
≥ 5000 MΩ (at 500 Vdc)
- Contact rating :
 - size 22D : 5 A size 20 : 7.5 A
 - size 16 : 13 A size 12 : 23 A
- Shell continuity :
 - nickel plating : 1 mΩ
- Shielding :
 - 90 dB to 100 MHz
 - 50 dB to 10000 MHz
- Triaxial contact : # 8
 - bandwidth : 0 - 20 MHz
 - voltage rating : 500 Vac Maxi.
125 Vac at 21000 m

- voltage drop :
 - inner and middle contact ≤ 55 mV under 1A
 - outer contact ≤ 75 mV under 12A

Climatic

- Temperature range :
 - nickel plating : -65°C +200°C
- Sealing : mated connectors
 - differential pressure 2 bars
 - leakage ≤ 16 cm³/hr
- Salt spray to :
MIL STD 1344 method 1001
 - 48 hours
- Damp heat :
MIL-C 38999 : 10 cycles 24 hours

Resistance to fluids

To MIL-C 38999 :

- MIL-L 7808 • MIL-L 23699
- MIL-H 5606 • MIL-A 8243
- MIL-C 25769 • MIL-T 5624 (JP5)
- hydraulic fluids • solvents

Fire test : to MIL-C 38999

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F38999 FCI Souriau part numbers

basic series	F38999/		20	K	B	35	P	N	WF
style	20 - square flange receptacle 26 - plug with RFI shielding								
plating	K - stainless steel S - stainless steel nickel plated								
shell size	09	11	13	15	17	19	21	23	25
	A	B	C	D	E	F	G	H	J
contact	see next page								
contact type	P - male S - female		A - male connector supplied less contact or with specific contacts B - female connector supplied less contact or with specific contacts						
orientation	N - normal A - B - C - D - E								
specification	WF	obligatory suffix							

MIL-C 38999 part numbers

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Hermetic connectors

Consult us

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Contact layouts

Viewed from front face of male insulator

09 A	09-35 Service M 6 # 22D 	09-98 Service I 3 # 20 				
	11 B	11-35 Service M 13 # 22D 	11-98 Service I 6 # 20 	11-01 Service II 1 # 12 	11-05 Service I 5 # 20 	11-04 Service I 4 # 20
13 C	13-35 Service M 22 # 22D 	13-98 Service I 10 # 20 	13-08 Service II 8 # 20 	13-26 Service M 2 # 12 6 # 22D 	13-04 Service I 4 # 16 	
	15 D	15-35 Service M 37 # 22D 	15-19 Service I 19 # 20 	15-05 Service II 5 # 16 	15-97 Service I 4 # 16 8 # 20 	15-18 Service I 18 # 20
17 E	17-06 Service I 6 # 12 	17-08 Service II 8 # 16 	17-26 Service I 26 # 20 	17-35 Service M 55 # 22D 	17-75 Service I 2 # 8 triaxial 	17-99 Service I 2 # 16 21 # 20
	19 F	19-11 Service II 11 # 16 	19-32 Service I 32 # 20 	19-35 Service M 66 # 22D 		
21 G		21-11 Service II 11 # 12 	21-16 Service II 16 # 16 	21-35 Service M 79 # 22D 	21-39 Service I 2 # 16 37 # 20 	21-41 Service I 41 # 20
	23 H	23-21 Service II 21 # 16 	23-35 Service M 100 # 22D 	23-53 Service I 53 # 20 		
25 J		25-04 Service I 48 # 20 8 # 16 	25-19 Service N 19 # 12 	25-35 Service M 128 # 22D 	25-46 Service N 2 # 8 triaxial 4 # 16 40 # 20 	25-61 Service I 61 # 20
		25-24 Service I 12 # 12 12 # 16 	25-29 Service I 29 # 16 	25-43 Service I 20 # 16 23 # 20 	<ul style="list-style-type: none"> size 22 contact size 20 contact size 16 contact size 12 contact triaxial contact # 8 <p>QPL approved</p>	