

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
- screw coupling with anti-decoupling mechanism
- 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

38999 Series III classes K & S

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

basic series	D38999/		26	K	J	61	P	N	
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
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contact	see page next page								
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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 6 # 22D Service M	09-98 3 # 20 Service I				
11 B	11-35 13 # 22D Service M	11-98 6 # 20 Service I	11-01 1 # 12 Service II	11-05 5 # 20 Service I	11-04 4 # 20 Service I	
13 C	13-35 22 # 22D Service M	13-98 10 # 20 Service I	13-08 8 # 20 Service II	13-26 2 # 12 6 # 22D Service M	13-04 4 # 16 Service I	
15 D	15-35 37 # 22D Service M	15-19 19 # 20 Service I	15-05 5 # 16 Service II	15-97 4 # 16 8 # 20 Service I	15-18 18 # 20 Service I	
17 E	17-06 6 # 12 Service I	17-08 8 # 16 Service II	17-26 26 # 20 Service I	17-35 55 # 22D Service M	17-75 2 # 8 triaxial Service I	17-99 2 # 16 21 # 20 Service I
19 F	19-11 11 # 16 Service II	19-32 32 # 20 Service I	19-35 66 # 22D Service M			
21 G	21-11 11 # 12 Service II	21-16 16 # 16 Service II	21-35 79 # 22D Service M	21-39 2 # 16 37 # 20 Service I	21-41 41 # 20 Service I	
23 H	23-21 21 # 16 Service II	23-35 100 # 22D Service M	23-53 53 # 20 Service I			
25 J	25-04 48 # 20 8 # 16 Service I	25-19 19 # 12 Service N	25-35 128 # 22D Service M	25-46 2 # 8 triaxial 4 # 16 40 # 20 Service N	25-61 61 # 20 Service I	
	25-24 12 # 12 12 # 16 Service I	25-29 29 # 16 Service I	25-43 20 # 16 23 # 20 Service I	<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>		