

MIL-DTL-38999 Series III Connectors

Apollo Aerospace Components is a franchised distributor of selected mil-specification connectors for leading QPL manufacturers. We offer a comprehensive inventory of backshells, contacts and connector accessories.

The MIL-DTL-38999 series III is a de-facto standard, high density, light weight miniature circular connector. It is used extensively within the aerospace, military, and commercial harsh-environment sectors.



Product Features

- Scoop proof contacts.
- Triple start mating thread.
- One full turn to mate.
- Full mate indicator.
- Keying options.
- Industry standard contact arrangements
- EMI shielding to 65dB minimum at 10 GHz.s

Product Benefits

- High density in a rugged package.
- Reliable fast mating.
- Self locking with visual confirmation.
- Improved shielding compared to bayonet variants.
- Massive range of accessories.

MIL-DTL-38999 Series III Connectors

Product technical description

Quick coupling via thread, available with defined high density insert arrangements, up to 128 contacts with a variety of contact termination options. Together with body materials and plating options they suit a broad range of electronic, mechanical and environmentally demanding applications, and are used extensively in military, aerospace, and commercial harsh-environment sectors.

Scoop proof contacts
Triple start thread
EMI shielding to 65dB minimum at 10 GHz
Sand, dust, and ice resistant Shell sizes 9 to 25
500 cycles mating
Typical contact performance:

- Size 22D contact. 5Amp DC test, max Volt drop 40 millivolts
- Size 12 contact. 23Amp DC test, max Volt drop 25 millivolts

How to order

MIL-DTL-38999 Series III (example)

D38999	/ 20	F	A	35	P	N
Connector Type	Shell Style	Service Class	Shell Size	Contact Arrangement	Contact Style	Polarising Position

ORDERING INFORMATION

Connector Type	D38999 - MIL-DTL-38999 Series III
Shell Style	D38999/20 - Wall mount receptacle D38999/24 - Jam nut receptacle D38999/26 - Straight plug, self-locking
Service Class	F - Electroless nickel -85 to +392degF (-65 to +200degC), Aluminium G - Electroless nickel plated. Space Grade, Aluminium J - Olive Drab Cadmium -85 to +347degF (-65 to +175degC), Composite W - Olive drab cadmium over electroless nickel plate -85 to +347degF (-65 to +175degC), Aluminium Z - Black Zinc Nickel* -85 to +347degF (-65 to +175degC), Aluminium
Shell Size	Refer to MIL-DTL-38999 specification or refer to product range on Apollo website
Contact Arrangements	Refer to MIL-DTL-5015 specification or refer to product range on Apollo website
Contact Style	P - Pin contact S - Socket contact A - Less Pin contacts B - Less Socket contacts
Polarising Position	N (Normal), A, B, C, D, E

note *: popular RoHS alternative to cadmium plating

CONTACT RATINGS

Contact Size	Test Current		Maximum Millivolt Drop		
	Standard	Hermetic	Crimp	Solder	
				Standard	Hermetic
22M	3	2	30	20	60
22D	5	-	40	-	-
22	5	3	40	20	85
20	7.5	5	35	20	60
16	13	10	25	20	85
12	23	17	25	-	85

SERVICE RATINGS

Service Ratings	Suggested Operating Voltage (sea level)		Test Voltage (RMS)			
	AC (RMS)	DC	sea level	50,000 feet	70,000 feet	110,000 feet
M	400	550	1300	550	350	200
I	600	850	1800	600	400	200
II	900	1250	2300	800	500	200