



QPL-D38999-VAD



QUICK RESPONSE



SHORT LEAD TIMES-

INTEGRATED SOLUTIONS

8D Aluminium/Composite Connectors

MIL-DTL 38999 K Series III



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CONNECTORS



8 D Aluminium & Composite

Presentation

The 8 D connector is in accordance with the MIL-C 38999 series III and Pr EN 3645 standard. Offered in aluminium or composite shell material, this family gives:

- a high contact density up to 128 cts (# 22 D, 20, 16, 12 and 8 in 9 shell Sizes)
- a quick screw coupling with self locking mechanism,
- 100 % scoop proof offering polarising options by angular positioning of keys
- EMI enhanced protection by shielding ring and shell to shell bottoming.

Moreover, 8D composite connector reaches high performances in terms of:

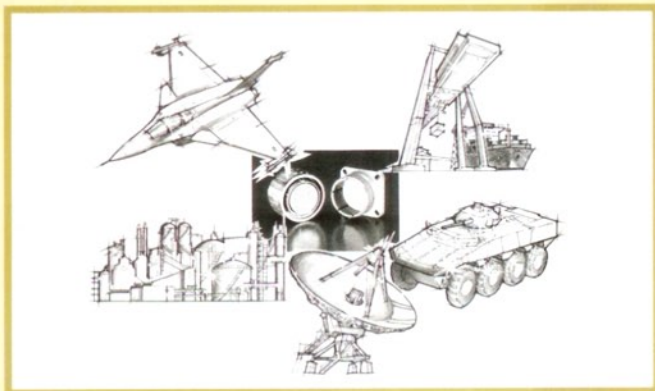
- resistance to salt spray.
- (> 2000 hours of salt spray)
- endurance:
(> 1500 cycles, Mating/unmating).

Its choice is recommended wherever weight is critical (typically - 25 % versus aluminium version) or in particularly severe climatic and mechanical environments.

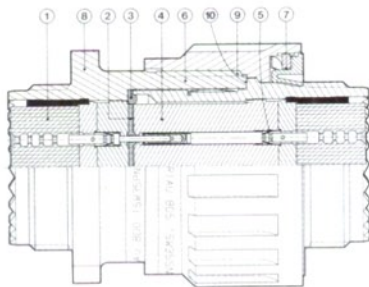
8 D family has applications in:

- aeronautics and military,
- marine, offshore,
- industrial,

And all instances where superior quality connectors are required.



Description



- 1 Grommet seal - Fluid resistance to MIL-C 38999.
- 2 Interfacial seal - Sealing around each pair of mated contacts.
- 3 Mating seal - Sealing between plug and receptacle shells.
- 4 Restricted entry female insulator for female contact protection.
- 5 Metal retainer clip: reliable contact insertion and extraction.
- 6 Quick coupling threaded, 360° full mating.
- 7 Self locking system maintains 2 to 1 of coupling to uncoupling force.
- 8 "Scoop-proof" shell design. Male contacts are recessed into the connector body to prevent mismating damage (especially in blind mating applications).
- 9 Shells have 5 polarizing key positions ensuring proper alignment of contacts at mating.
- 10 Metal metal bottoming ensured by engagement of grounding fingers prior to contact mating and provides

8 D Aluminium

Connector part numbers

Racine: 8D 0 - 11 W 35 P N ***
Basic series:

Type de boîtier : 0 - Square flange receptacle
Style: 7 - jam nut receptacle
5 - plug with RFI shielding

Indice: - : Connectors with standard crimp contacts
Type: L : receptacle with long spill (male and female #22D)
C : receptacle with short spill (male and female #22D; #20, #16)
S : receptacle with specific spill (male and female #22D)
W : receptacle with male contacts size 22D for wire wrap (3 wraps)
T : receptacle with male contacts size 20D for wire wrap (2 wraps)

Taille de boîtier : 09 -11 -13 -15 -17 -19 - 21 - 23 - 25
Shell size:

Protection: W - olive green cadmium
Plating: F - nickel

Arrangement:
Contact layout: See contact layout *

Type de contact: P - Pin A - connector supplied less Pin contact or with specific contacts
Contact type: S - Female B - connector supplied less Socket contact or with specific contacts

Positionnement: N - normal
Orientation: A - B - C - D - E

Specification: 046- tinned straight spills

Mil- C38999 - MIL- C 38999 part numbers

Racine: D38999/ 20 W B 35 P N
Basic series:

Taille de boîtier : 20 - square flange receptacle
Style: 24 - jam nut receptacle
26 - plug with RFI shielding

Protection: W - olive green cadmium
Plating: F - nickel

Taille de boîtier :
Shell size: A - B - C - D - E - F - G - H - J

Arrangement:
Contact layout: See contact layout *

Type de contact: P - Pin A - connector supplied less Pin contact or with specific contacts
Contact type: S - Female B - connector supplied less Socket contact or with specific contacts

Positionnement: N - normal
Orientation: A - B - C - D - E

8 D Aluminium

Characteristics

Mechanical

- Shell: aluminium alloy
 - Shell plating: olive green cadmium (W) / nickel (F)
 - Insulator: thermoplastic or thermoset
 - Grommet and interfacial seal: silicone elastomer
 - Contact: copper alloy
 - Contact plating: gold over nickel plated
 - Endurance: 500 mating/unmating operations
 - Shock: high impact as per MIL-S901, 300 g - 3 ms
- Vibration:
- sine: 10 to 2000 Hz, 3 x 12hrs (60 g, 140 - 2 000 Hz) with temperature cycling
- random: 50 to 2000 Hz, 2 x 8 h (1g²/Hz, 100-2000 Hz) at T max. 25 to 2000 Hz, 2 x 8 hrs (5g²/Hz, 100 - 300 Hz) at ambient temperature- Contact retention: (min. force in N)
size 22D : 45 N size 16 : 111 N size 8 : 111 N
Size 20 : 67 N size 12 : 111 N

Electrical

- Test voltage rating (Vrms)

Service	au niveau de la mer	at 21 000 m
M	1300	800
N	1000	600
I	1800	1000
II	2300	1000

- Contact resistance:
Resistance of wire included in measurement
size 22D: 14,6 m ohms. size 16: 3,8 m ohms. size 8: 3 m ohms.
size 20 : 7,3 m ohms. size 12: 3,5 m ohms.
Insulation resistance: \geq 5000 M V (at 500 V dc)
- Contact rating:
size 22 D : 5 A size 16 : 13 A size 8 : 45 A
size 20 : 7.5 A size 12 : 23 A

* Contact us for detailed catalogue

- Shell continuity: olive green plating: 2,5 m ohms. Nickel plating: 1 m ohms.
- Shielding: 65 db at 10 GHz (F) - 50 db at 10 GHz (W) 85 db at 1 GHz (F and W)
- Triaxial contact # 8
bandwidth: 0 - 20 MHz
voltage rating: 500 Vac max. / 125 Vac at 21 000 m
voltage drop: inner and middle contact
 \leq 55 mV under 1 A
Outer contacts \leq 75 mV under 12 A

Climatics

- Temperature range:
cadmium plating (W): - 65° C + 175° C
nickel plating (F): - 65° C + 200° C
- Sealing: mated connectors meet altitude Immersion requirements of MIL -C 38999
- Salt spray to:
MIL-STD 1344 method 1001 : - 500 hours (version W) - 48 hours (version F)
- Damp heat: MIL C 38999: 10 cycles of 24 hrs

Resistance to fluids

- To MIL-C 38999 standard:
- Gasoline: JP5 (OTAN F44)
 - Mineral hydraulic fluid: MIL-H-5606 (OTAN H515)
 - Synthetic hydraulic fluid: skydrol 500 84, LD4 (SAE AS 1241)
 - Mineral lubricating: MIL-L-7870A (OTAN O142)
 - Synthetic lubricating: MIL-L-23699 (OTAN O156), MIL-L-7808
 - Cleaning fluid: MIL -C-25769 diluted
 - De-icing fluid: MIL-A-8243
 - Extinguishing fluid: Chlorobromethane
 - Cooling fluid: Coolanol



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Allied is the only authorized assembly Distributor (V.A.D.) of Souriau France for D 38999 Series III connectors in India

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