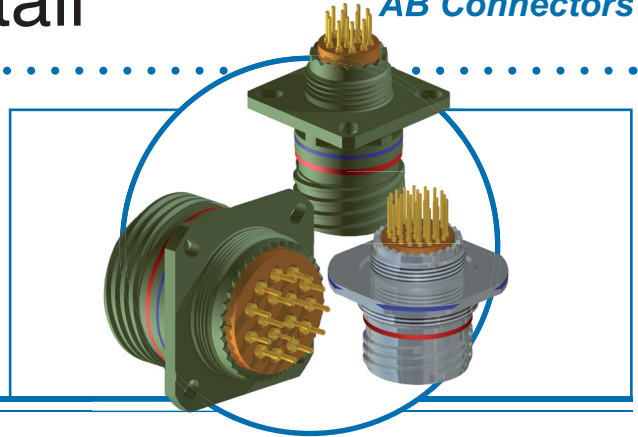


# Cylindrical 38999 Series III Connectors with PC tail

Cylindrical 38999 III connectors with PC tail contacts for solder mounting on printed circuit boards.

- Military & Aerospace
- Mil-DTL-38999



The Cylindrical 38999 Series III connectors with PC tail contacts for solder mounting to printed circuit boards, meeting Mil-Spec requirements of MIL-DTL-38999.

38999 Series III PC Tail connectors are available in either single hole jam nut type 24, or four hole panel mount type 20 styles. Insert arrangements incorporate PCB contact in sizes 16, 20 and 22D. Connector performances are compatible with the Mil Spec. Considerations must be made for length of PCB tails and any mechanical methods needed to stabilise the printed circuit board.

Pinout coordinate dimensions are available on request.

## Specifications

### Standard Materials & Finishes

**Shell:** Aluminium

**Insulators:** Rigid plastic/silicone rubber

**Contacts:** Copper alloy

### Standard Plating Finishes

**Aluminium Parts:** Cadmium Olive drab (W)

**Contacts:** Gold over nickel plated

\* Consult factory for alternative finishes.

### Environmental Features

**Temperature Rating:** -65°C to + 175°C

**Shock:** 300g, 3 ms according EN 2591-D2 method A

**Vibration (sine):** 10 to 2000 Hz, 3x12 hrs (60g, 140-2000 Hz) with temperature cycling

**Vibration (random):**

50 to 2000 Hz , 2x8 hrs (1g<sup>2</sup> / Hz, 100-2000Hz) at T° max.

25 to 2000 Hz , 2x8 hrs (5g<sup>2</sup> / Hz, 100-300Hz) (at ambient T°)

Test with accessories in acc. with EN 2591-D3

**Sealing:** Mated connectors meet altitude immersion requirements of MIL-DTL-38999

**Salt spray:** 500 hrs

**Resistance to fluids:**

Gasoline: JP5 (OTAN F44)

Mineral hydraulic fluid: MIL-H-5606 (OTAN H515)

Synthetic hydraulic fluid: Skydrol 500 B4

Mineral lubricating: MIL-L-7870A (OTAN 0142)

Synthetic lubricating: MIL-L-23699 (OTAN 0156), MIL-L7808

Cleaning fluid: MIL-DTL-25769 diluted

De-icing fluid: MIL-A-8243

Extinguishing fluid: Chlorobrométhane

Cooling fluid: Coolanol

### Mechanical Features

**Coupling:** 3 start stub acme thread

**Contact Termination:** PCB

**Sealing:** Dynamic sealing ring & individual wire seal grommet. IP67 rated.

**Endurance:** 500 mating / unmating operations

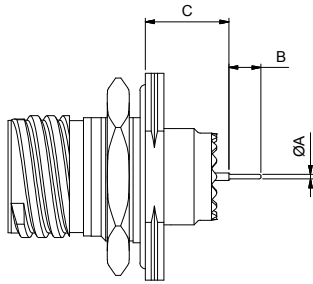
### General Note

AB Connectors reserves the right to make changes in product specification without notice or liability.

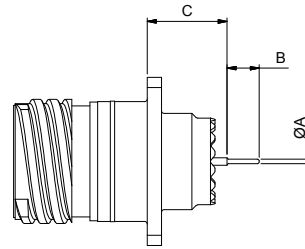
All information is subject to AB Connectors' own data and is considered accurate at time of going to print.

# Cylindrical 38999 Series III Connectors with PC tail

## Receptacle connectors with preloaded straight PCB contacts



JAM NUT STYLE		
SHELL SIZE	C MIN	C MAX
9	12.21	13.36
11	12.21	13.36
13	12.32	13.34
15	12.32	13.34
17	12.21	13.36
19	12.01	13.16
21	13.01	14.16
23	13.01	14.16
25	13.03	14.16



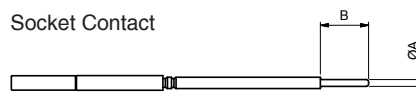
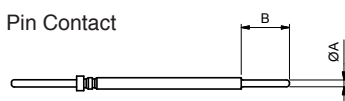
SQUARE FLANGE STYLE		
SHELL SIZE	C MIN	C MAX
9	10.49	11.63
11	10.49	11.63
13	10.49	11.63
15	10.49	11.63
17	10.49	11.63
19	10.49	11.63
21	10.49	11.63
23	10.49	11.63
25	10.51	11.63

Note: For dimensions A & B, see Table 1. All dimensions are in millimetres

## AB Part Number Explanation

<b>Product Range:</b>	AB AC	20	W	11	35	P	N	M09
<b>Shell style:</b>	20 : Square flange receptacle 24 : Jam nut receptacle 26 : Plug with RFI shielding W : Olive drab cadmium F : Electroless Nickel Q : Zinc cobalt green passivate QB : Zinc cobalt black passivate							
<b>Shell size:</b>	9, 11, 13, 15, 17, 19, 21, 23 or 25							
<b>Contact layout:</b>	Please consult factory							
<b>Contact type:</b>	P : Pin S : Socket							
<b>Orientation:</b>	N, A, B, C, D & E							
<b>Modification:</b>	See Table 1 Below							

## Straight PCB contacts for 38999 Series III connector



## Contact part numbers

Size 22D pin contact with PCB tail	514.2.18970.###
Size 22D socket contact with PCB tail	514.2.18977.###
Size 20 pin contact with PCB tail	514.2.18971.###
Size 20 socket contact with PCB tail	514.2.18978.###
Size 16 pin contact with PCB tail	514.2.18972.###
Size 16 socket contact with PCB tail	514.2.18979.###

Table 1

CONTACTS			
CONTACT SIZE	MOD CODE REF.	ØA	B
22D	M03	0.70	8.50
22D	M09	0.70	4.00
22D	M10	0.50	5.10
20	M09	0.70	5.10
16	M09	1.15	5.10

Note: To choose correct tail length and diameter, see Table 1

For additional information or to discuss your specific requirements please contact our Sales Team using the contact details below.

### General Note

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