

Cannon

# MIL-DTL-38999 Series III Composite

Designed to support mission critical applications with improved reliability and an average 30% weight reduction

Features and Benefits



**ITT**





ENGINEERED FOR LIFE

# MIL-DTL-38999 Series III Composite: Our customizable product demonstrate our continued focus on meeting customer demands.


ITT has over 40 years of experience in manufacturing the 38999 connector series. Throughout this time, ITT has made many advances in design, engineering and manufacturability resulting in continuous improvements in performance, quality and affordability. As we continue our heritage of innovation in the aerospace market, we are proud to announce the newest addition to the MIL-DTL product family, the Cannon Composite 38999 (Class J & M). Qualified to MIL-DTL 38999L, this connector is QPL listed by DLA and designed to not only meet but exceed your harsh environment expectations.



## Technical overview


-  3 to 128 way layouts
-  Wire range: Size 16-28
-  1000-2300 VAC rms at sea level
-  -65°C up to 200°C

Our products do what we say they will do



Laser Marking of Cavity Identification

**White background provides visual clarity for improved assembly accuracy**



Anti-Vibration System

**Provides greater ease of coupling while maintaining the reliability of MIL-DTL-38999**

## Applications

- Military communication systems
- Military / Commercial aviation
- Hand held and vehicle platforms
- Military ground support and computer systems
- Aerospace launch vehicles
- Heavy equipment
- Rail

### Why customers benefit from choosing ITT's

#### MIL-DTL-38999 Composite:

- Composite construction delivers 4X the corrosion resistance of standard OD Cad and 50X Nickel
- 100% scoop proof design
- Global manufacturing locations offer specific regional design requirements and provide optimized local sourcing options
- Full line offered by broad network of authorized stocking and value-added distributors

## Product Performance

| Series | Plating Finish     | Finish Modification Code | Color      | Durability   | Temperature Range | EMI Shielding                      | Shell-Shell Conductivity | Corrosion Resistance |
|--------|--------------------|--------------------------|------------|--------------|-------------------|------------------------------------|--------------------------|----------------------|
| KJB    | Olive Drab Cadmium | Class 'J'                | Olive Drab | 1,500 cycles | -65°C to +175°C   | >90dB at 100 MHz<br>>50dB at 10GHz | 3.0mV max                | 2,000hrs salt spray  |
| KJB    | Electroless Nickel | Class 'M'                | Reflective | 1,500 cycles | -65°C to +200°C   | >90dB at 100 MHz<br>>65dB at 10GHz | 3.0mV max                | 2,000hrs salt spray  |



## How-To-Order Guide

### Military Nomenclature

#### CONNECTOR TYPE

D38999 - MIL-DTL-38999 Series III

#### SHELL STYLE

/20 - Wall mount receptacle  
/26 - Straight Plug, Grounded

#### SERVICE CLASS (HARDWARE FINISH)

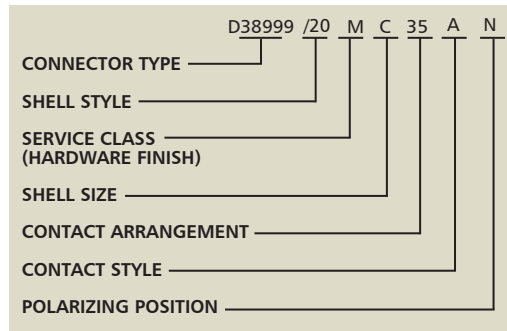
M - Electroless nickel  
-65°C to +200°C, RoHS Compliant  
J - Olive drab cadmium over electroless nickel plate.  
-65°C to +175°C

#### SHELL SIZE

|   |    |    |    |    |    |    |    |    |                      |
|---|----|----|----|----|----|----|----|----|----------------------|
| A | B  | C  | D  | E  | F  | G  | H  | J  | Military Designation |
| 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | Cannon Designation   |

#### CONTACT ARRANGEMENT

Refer to Insert Availability Identification Chart



#### CONTACT STYLE

P - Pin contact  
S - Socket contact  
H - Pin contact (1,500 cycles)  
J - Socket contact (1,500 cycles)  
A - Less pin contacts\*  
B - Less socket contacts\*

#### POLARIZING POSITION

N (Normal), A, B, C, D, E

### Cannon Nomenclature

#### SERIES PREFIX

KJB - Series III - scoop proof, threaded coupling

#### SHELL STYLE

0 - Wall mount receptacle  
6 - Straight plug

#### CLASS

T - Environmental-resistant (without rear accessory)

#### SHELL SIZE

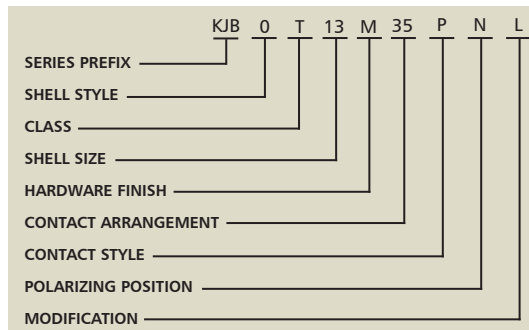
|   |    |    |    |    |    |    |    |    |                      |
|---|----|----|----|----|----|----|----|----|----------------------|
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#### HARDWARE FINISH

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#### MODIFICATION CODE

L - Less contacts, not stamped on connector

## Insert Availability & Identification

| Shell Size | Contact Arr. | Service Rating† | Contact Size |    |    |
|------------|--------------|-----------------|--------------|----|----|
|            |              |                 | 22D          | 20 | 16 |
| 9          | 35           | M               | 6            |    |    |
| 9          | 98           | I               |              | 3  |    |
| 11         | 5            | I               |              | 5  |    |
| 11         | 35           | M               | 13           |    |    |
| 11         | 98           | I               |              | 6  |    |
| 13         | 8            | I               |              | 8  |    |
| 13         | 35           | M               | 22           |    |    |
| 13         | 98           | I               |              | 10 |    |
| 15         | 5            | II              |              |    | 5  |
| 15         | 18           | I               |              | 18 |    |
| 15         | 19           | I               |              | 19 |    |
| 15         | 35           | M               | 37           |    |    |
| 15         | 97           | I               |              | 8  | 4  |
| 17         | 826          | II              |              |    | 8  |
| 17         | 35           | I               |              | 26 |    |
| 17         | 11           | M               | 55           |    |    |
| 19         | 32           | II              |              |    | 11 |
| 19         | 32           | I               |              | 32 |    |
| 19         | 35           | M               | 66           |    |    |
| 21         | 35           | M               | 79           |    |    |
| 21         | 41           | I               |              | 41 |    |
| 23         | 21           | II              |              |    | 21 |
| 23         | 35           | M               | 100          |    |    |
| 23         | 53           | I               |              | 53 |    |
| 23         | 55           | I               |              | 55 |    |
| 25         | 29           | I               |              |    | 29 |
| 25         | 35           | M               | 128          |    |    |
| 25         | 61           | I               |              | 61 |    |

\*Used only when other than power contacts are to be installed (i.e., shielded, thermocouple, etc.)

Note: To order MS connectors less standard power contact, Purchase order must state "Less Contacts"

† See Table I in MIL-DTL-38999L for Service Rating Definitions

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[CS3106A10SL3S004](#) [CS3106A-18-73S](#) [CS3108A-14S-52S](#) [CS3108A-28-51S](#) [6162-233-1277](#) [6162-324-1231](#) [M243082296Z](#)  
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