



# Component Specification

**C02509**

**M30 Series Connectors  
November 2021**

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## 1. DESCRIPTION OF CONNECTOR AND INTENDED APPLICATION

A selection of 1.25mm pitch connectors, comprising throughboard and surface mount vertical headers mated to crimp sockets with housings.

## 2. RATINGS

### 2.1. Material & Finish

Housing Material:

For PC Tail or SMT connector .....	Nylon 6T, UL94V-0
For Cable connector .....	Nylon 66, UL94V-0

Contact Material:

For PC Tail or SMT connector .....	Brass
For Cable connector .....	Phosphor Bronze

SMT Retainer Material .....

Finish (Contacts and SMT Retainer) ..... 2.03-2.54µ 100% Tin over 0.76µ Nickel

### 2.2. Electrical Characteristics

Current Rating.....	1.0A AC/DC max
Voltage Rating .....	150V AC/DC max
Contact Resistance .....	30mΩ max
Dielectric Withstanding Voltage .....	500V ACrms for 1 minute
Insulation Resistance .....	500MΩ min

### 2.3. Environmental Characteristics

Temperature Range .....	-25°C to +85°C
High Temperature, Short Term (no electrical load) .....	10 seconds at 260°C
Thermal Shock.....	5 cycles: -55°C (30 mins) to +85°C (30 mins)
Heat Resistance.....	85°C for 96 hours
Cold Resistance .....	-25°C for 96 hours
Humidity .....	90-95% RH at 40°C for 96 hours
Salt Spray.....	5% solution at 35°C for 24 hours
Vibration.....	10-55-10Hz in 1 minute, 1.5mm amplitude, 2 hours each axis
Shock.....	50G (490m/s <sup>2</sup> ) for 11 milliseconds
Solderability.....	5 seconds at 245°C

### 2.4. Mechanical Characteristics

Contact Durability ..... 50 Cycles\*

*\*connectors are not designed to be pulled apart or separated easily, and are ideal for **one cycle only**.*

Contact Retention in Housing..... 4.9N min

Crimp Wire Retention (Pull-Off Force):

26AWG .....	18.5N min
28AWG .....	8.5N min
30AWG .....	7.0N min

Insertion Force (per contact) ..... 4.9N max