


COMPONENT SPECIFICATION
M50 AND M52 SERIES CONNECTORS

AUGUST 2011

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PREPARED BY: 

APPROVED BY: 

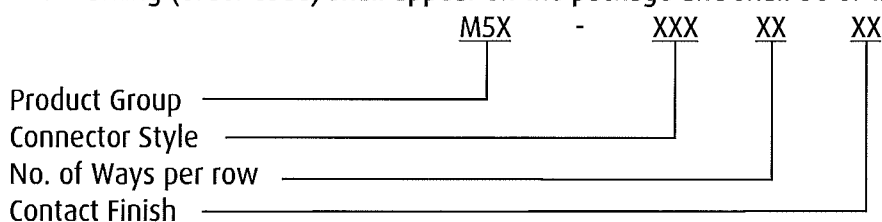
COMPONENT SPECIFICATION
M50 AND M52 SERIES CONNECTORS

1. DESCRIPTION OF CONNECTOR AND INTENDED APPLICATION.

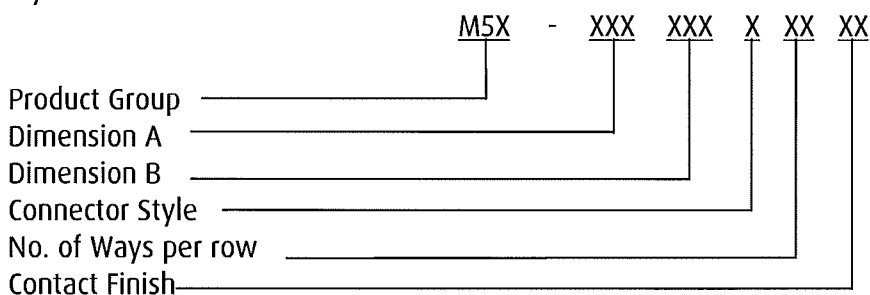
A selection of 1.27mm pitch connectors, mini jumpers and IDC's, comprising vertical surface mount, vertical pc tail, horizontal pc tail, plugs and sockets of varying heights. Board-to-board spacing and configuration is obtained by the selection of an appropriate height plug and socket. M50 connectors are spaced 1.27mm between the rows, and are based on 0.40mm square or round pins. M52 connectors are spaced 2.54mm between the rows, and are based on 0.46mm square pins.

2. MARKING OF THE CONNECTOR AND/OR PACKAGE (ORDER CODE).

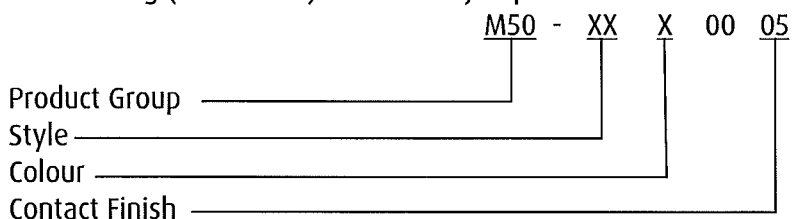
The marking (order code) shall appear on the package and shall be of the following style:



The marking (order code) for a pin header variant shall appear on the package and shall be of the following style:



The Marking (order code) of the Mini jumper will be as follows:



Connector Style: See individual drawings for connector details.

COMPONENT SPECIFICATION
M50 AND M52 SERIES CONNECTORS (CONTINUED)

3. RATINGS.**3.1. MATERIAL & FINISH.**

Materials:

Mouldings High Temperature Thermoplastic, UL94V-0 Colour: Black
M50-330 & 380, PBT, 30% G/F, UL94V-0 Colour: Black
M50-355 & 365, LCP, 30% G/F, UL94V-0 Colour: Black
M50-19X & M50-20X, Nylon 66, Colours: Red, Blue & Black

Contacts:

Male & Female Copper alloy

Finish:

Contacts 42- Gold Flash on Contact area 100% Tin on PC Tails.
45- All over Gold Flash, RoHS Compliant.

3.2. ELECTRICAL CHARACTERISTICS.

Rated Current (Max Per Contact) M50-380 0.5A AC/DC
Rated Current (Max Per Contact) M50-3XX, 19X, 20X, 4XX & M52-XXX 1.0A AC/DC
Rated Current (Max Per Contact) M50-355 & 365 1.75A AC/DC
Rated Voltage (Max) 150V AC/DC
Contact resistance (Max) 40mΩ
Dielectric Withstanding Voltage (Voltage Proof) 500V AC rms for 1 minute
Insulation resistance (Min) 1000 MΩ

3.3. ENVIRONMENTAL CHARACTERISTICS.

Operating Temperature Range -40°C to +105°C
Operating Temperature Range M50-355 & M50-365 -55°C to +125°C
Solder ability 260°C for 3 seconds
Soldering heat resistance 260°C for 5 seconds

3.4. MECHANICAL CHARACTERISTICS.

Insertion force:

M50-19X, M50-20X 10.0N Max
M50-3XX & M52-XXX 2.0N per contact Max
M50-4XX 0.60N per contact Max
M50-330,355 & 365 0.90N per contact Max

Withdrawal force:

M50-19X, M50-20X 0.60N Min
M50-3XX & M52-XXX 0.30N per contact Min
M50-4XX 0.10N per contact Min
M50-330,355 & 365 0.14N per contact Min

Durability:

M50-19X, 20X & M50-4XX 300 cycles
M50-300, M50-311, M52-XXX 50 cycles
M50-3XX male 600 cycles
M50-315 25 cycles
M50-330,355,365 & 380 100 cycles

NB: Individual components may exceed above ratings – Check individual customer information sheets