## COMPONENT SPECIFICATION

### 2mm PITCH JUMPER SOCKETS

#### SEPTEMBER 2009

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**APPENDIX NOTES:**

1. All dimensions are in millimetres.

### PREPARED BY: [Signature]

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COMPONENT SPECIFICATION
2mm PITCH JUMPER SOCKETS (continued)

1. DESCRIPTION OF CONNECTOR AND INTENDED APPLICATION.
A range of 2mm pitch jumper sockets, consisting of a moulded outer body holding phosphor bronze spring contacts. The contacts are either tin plated overall, or selectively gold plated on the contact area. The component is intended to interconnect two adjacent 0.50mm square or round section pins on 2mm pitch centres. Connectors can be mounted side by side in either direction on 2mm pitch centres.

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:

   M22 - XXX 00 XX

Series No.  
Connector Style  
Contact Finish

Connector Style:
Open top, Black.......................... 190  Finish:
Open top, Blue.......................... 191  Tin.......................... 06
Open top, Red.......................... 192  Selective Gold........ 22
Open top, Light Grey................... 193

3. RATINGS.

3.1. ELECTRICAL CHARACTERISTICS.
Current at an ambient temperature of 25°C ................................................................. 2A max
Working voltage ........................................... 250V DC nominal or AC peak (sea level)
Voltage proof ................................................... 500V rms at 50 Hz (sea level)
Maximum contact resistance (initially) ... 20 mΩ Tin, 15 mΩ Gold
Maximum contact resistance (after conditioning) ... 25 mΩ Tin, 20 mΩ Gold
Minimum insulation resistance * (initially) ......................... 1000 MΩ
Minimum insulation resistance * (hot after conditioning) ............... 100 MΩ
(* As measured between two adjacent pins not electrically connected)

3.2. ENVIRONMENTAL CHARACTERISTICS.
Environmental classification ........................................... 40/85/21
Low air pressure severity ........................................... 300 mbar

3.3. MECHANICAL CHARACTERISTICS.
Durability ........................................................... 50 operations Tin, 300 operations Gold
High temperature, long term (current as in 3.1.) ........................................... 1000 hours at 70°C
High temperature, short term (no electrical load) ......................... 250 hours at 85°C
Clip retention in moulding ........................................................... 5N min
Insertion and withdrawal forces per pair (using gauges in Appendix 1):
- Maximum insertion force........................................... 10.0N
- Minimum withdrawal force........................................... 1.0N

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COMPONENT SPECIFICATION
2mm PITCH JUMPER SOCKETS (continued)

APPENDIX 1 - GAUGES.

NOTES:
1. Material = Steel to BS1407 or equivalent.
2. Gauging surfaces to be hardened/ground to 650 H.V.5 minimum.
3. These gauges to be used for testing fully assembled components only.
4. Ultimate wear limit of 0.005mm is allowable on gauging diameters.

A1.1. INSERTION AND WITHDRAWAL GAUGE.

A1.2. HOLDING GAUGE.