CLARKE & SEVERN ELECTRONICS

Solutions that Fit - From One Source



Archer Connectors - M50 Specification

Email sales@clarke.com.au - www.clarke.com.au - webshop www.cseonline.com.au

1.27mm pitch male pin headers (with 0.4mm square pins) and female sockets, for board-to-board connection.

Materials

Ph +612 9482

Housings: Contacts: Finish: High Temperature Plastic UL94V-0 Copper Alloy See individual pages

Electrical

Current: Voltage proof:

Contact resistance: Insulation resistance: 1A per contact 300V AC, 500V DC for 1 minute (see individual drawings) 30mΩ max 500MΩ min

Mechanical

Durability M50-310, 312, 491: M50-311: M50-315: M50-353, 363, 393: Others:

Insertion force (max) M50-303, 313, 314: Jumper sockets: Others:

Withdrawal force (min) Jumper sockets: Others: Vibration sensitivity: Shock severity: 100 operations 600 operations 25 operations 500 operations 300 operations

1.17N per contact 10.0N 2.0N per contact

1.3N 0.1N per contact 10 - 55Hz, 1.5mm, 6 hours duration 294m/s² (30G) for 11ms

Environmental

Operating temperature: Solderability: Soldering heat resistance: -40°C to +105°C 245°C for 5 seconds 260°C for 5 seconds



Archer Connectors - M50 Mating Profiles





All dimensions in mm.

1.27mm (.050") PITCH

HARWIN

1.27mm (.050") PITCH

Archer Connectors – M50

Female Vertical Throughboard



All dimensions in mm.

HARWiN

Female Horizontal Throughboard • Horizontal connector has two point solder fixing for connector rigidity. • Twin beam connector for higher durability. HORIZONTAL HORIZONTAL



1ARWiN

1.27mm (.050") PITCH

Archer Connectors – M50

Female Vertical Surface Mount

- Locating pegs (posts) available to ensure correct positioning on the board.
- Alternative height connectors available on the following page.
- Dual entry connector can be used as either top or bottom entry.



HARWIN



Female Vertical Surface Mount, Low Profile

• Lower profile surface mount connector with twin beam contacts for additional board-to-board height options.



IARWIN



Female Vertical Surface Mount, Low Profile

- Locating pegs (posts) available on double row to ensure correct positioning on the board.
- Dual entry connectors can be used as either top or bottom entry.



HARWIN



Jumper Sockets

- Can be fitted and removed by hand, giving an alternative on-board programming method to DIP switches.
- Suitable for use with male M50 pin headers.
- Choice of colors available.
- Closed top with handle available for easier handling, placing and removing.





All dimensions in mm.

HARWIN

Male Vertical Throughboard

 Suitable for use with female connectors and jumper sockets.



IARWiN

1.27mm (.050") PITCH

SINGLE ROW



Male Horizontal Throughboard

 Suitable for use with female connectors and jumper sockets.



IARWiN

SINGLE ROW



Male Vertical Surface Mount Single Row

- Suitable for use with female connectors and jumper sockets.
- Tape and Reel packaging option includes Pick and Place cap for automated assembly.



IARWiN

CALCULATION **SINGLE ROW** 1.27 x No. of contacts per row Α В 1.27 x (No. of contacts per row - 1) R - 2.10 6.00 回 Ħ 闰 回 Ξ Ĭ 3.00 1.27 0.65 1.27 Recommended PC Board Pattern 3.00 <u></u>−1.00 r 1.50 0.40 square — 5.00 HOW TO ORDER M50 - 363 XX 42 X PACKAGING **SERIES CODE** Blank Loose R Tape & Reeled **NO. OF CONTACTS PER ROW FINISH** 02 to 06, 08, 10, 20 42 Gold + Tin

Male Vertical Surface Mount Double Row

- Suitable for use with female connectors and jumper sockets.
- Available with or without location posts.
- Tape and Reel packaging option includes Pick and Place cap for automated assembly.



1.50]

1.50

1.27--

6.50

1.27 ----

Α

В

C

CALCULATION

Recommended PC Board Pattern

В

B - 1.27

Recommended PC Board Pattern

6 30

Ø0.80

0.74

1.27 x No. of contacts per row

1.27 x (No. of contacts per row - 1)

0.65

IARWir

WITHOUT POSTS

1.27mm (.050") PITCH



WITH POSTS





