



Micro-D Printed Circuit Board Connectors Condensed Board Straight CBS .075 Inch Spacing



Save Space On Your Circuit Board—These Micro-D connectors feature .075 inch row spacing. The board footprint is reduced to match the size of the connector body.

Designed for Flex Circuits—CBS COTS connectors are available with jackscrews for flex circuit compatibility.

Solder-Dipped—Terminals are coated with SN63/Pb37 tin-lead solder for best solderability. Optional gold-plated terminals are available for RoHS compliance.

High Performance—These connectors meet the demanding requirements of MIL-DTL-83513. Suitable for Level 1 NASA reliability.

HOW TO ORDER CBS CONDENSED BOARD STRAIGHT CONNECTORS

| Series | Shell Material and Plating Finish | Insulator Material | Number of Contacts | Contact Type | Termination Style | Hardware Option | PC Tail Length | Gold-Plated Terminal Mod Code | |
|---------------------------------------|-----------------------------------|---|--|--|--|--|--------------------|--|--|
| MWDM Micro-D Metal Shell | Aluminum Shell | L LCP (Liquid Crystal Polymer) | 9 | P Pin | CBS Condensed Board Straight | NN –No Jackpost, No Threaded Insert | .080 | These connectors are solder-dipped in 63/37 tin- lead solder. To delete the solder dip and change to gold-plated terminals, add code 513 | |
| | 1 – Cadmium | | 15 | | | | S Socket | | PN –Extended Jackpost for .062" (1.6) PCB, No Threaded Insert |
| | 2 – Nickel | | 21 | RN –Extended Jackpost for .196" (5.0) PCB, No Threaded Insert | | .140 | | | |
| | 4 – Black Anodize | | 25 | | | NU –Threaded Insert Only, No Jackposts | .172 | | |
| | 5 – Gold | | 31 | PU –Short Jackpost and Threaded Insert | | | .190 | | |
| | 6 – Chem Film | | 37 | | | Rear Panel Jackposts With Threaded Inserts | .250 | | |
| | Stainless Steel Shell | 51 | R6U – 0.125" (3.2) Panel R5U – 0.094" (2.4) Panel R4U – 0.062" (1.6) Panel R3U – 0.047" (1.2) Panel R2U – 0.031" (0.8) Panel Jackscrew Options M – Hex Head Jackscrews S – Slot Head Jackscrews | Length in Inches | | | | | |
| | 3 – Passivated | 100 | | ± .015 (0.38) | | | | | |
| | Sample Part Number | | | | | | | | |
| | MWDM | 1 | L – | 31 | P | CBS | NN | – .110 | |

HARDWARE OPTIONS
See Pages C-16 and C-17

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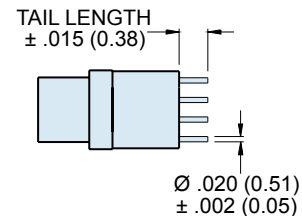
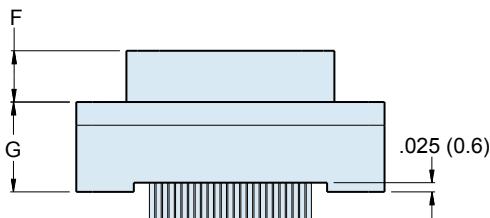
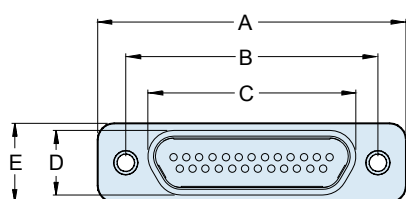
Micro-D
PCB

PERFORMANCE SPECIFICATIONS

| | |
|---------------------------|-------------------------------|
| Current Rating | 3 AMP |
| DWV | 600 VAC Sea level |
| Insulation Resistance | 5000 Megohms Minimum |
| Contact Resistance | 8 Milliohms Maximum |
| Low Level Contact Resist. | 32 Milliohms Maximum |
| Magnetic Permeability | 2 μ Maximum |
| Operating Temperature | -55° C. to +150° C. |
| Shock, Vibration | 50 g., 20g. |
| Mating Force | (10 Ounces) X (# of Contacts) |

MATERIALS AND FINISHES

| | |
|------------------|---|
| Connector Shell | Aluminum Alloy 6061 or Stainless Steel, 300 Series, passivated. See Ordering Info for Plating Options |
| Insulator, Tray | Liquid Crystal Polymer (LCP) |
| Interfacial Seal | Fluorosilicone Rubber, Blue |
| Pin Contact | Copper Alloy, Gold over Nickel Plating |
| Socket Contact | Copper Alloy, Gold Over Nickel Plating |
| PCB Terminals | Gold Plated Copper Alloy, Solder Dipped |
| Hardware | 300 Series Stainless Steel |
| Encapsulant | Epoxy Resin Hysol EE4215 |



MICRO-D CBS BOARD MOUNT CONNECTOR DIMENSIONS

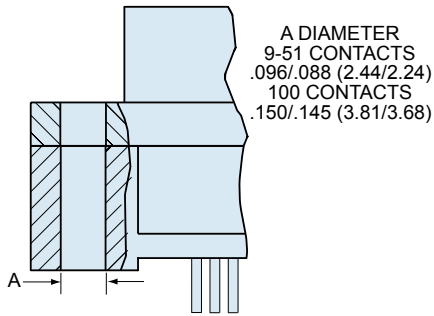
| Layout | A Max. | | B | | C Max. | | D Max. | | E Max. | | F | | G Max. | |
|--------|--------|-------|--------------|--------------|--------|-------|--------|------|--------|-------|--------------|--------------|--------|-------|
| | In. | mm. | In. ±.005 | mm. ±0.13 | In. | mm. | In. | mm. | In. | mm. | In. ±.003 | mm. ±.008 | In. | mm. |
| 9P | .785 | 19.94 | .565 | 14.35 | .333 | 8.46 | .184 | 4.67 | .310 | 7.87 | .183 | 4.65 | .355 | 9.02 |
| 9S | .785 | 19.94 | .565 | 14.35 | .400 | 10.16 | .250 | 6.35 | .310 | 7.87 | .195 | 4.95 | .355 | 9.02 |
| 15P | .935 | 23.75 | .715 | 18.16 | .483 | 12.27 | .184 | 4.67 | .310 | 7.87 | .183 | 4.65 | .355 | 9.02 |
| 15S | .935 | 23.75 | .715 | 18.16 | .551 | 14.00 | .250 | 6.35 | .310 | 7.87 | .195 | 4.95 | .355 | 9.02 |
| 21P | 1.085 | 27.56 | .865 | 21.97 | .633 | 16.08 | .184 | 4.67 | .310 | 7.87 | .183 | 4.65 | .355 | 9.02 |
| 21S | 1.085 | 27.56 | .865 | 21.97 | .701 | 17.81 | .250 | 6.35 | .310 | 7.87 | .195 | 4.95 | .355 | 9.02 |
| 25P | 1.185 | 30.01 | .965 | 24.51 | .733 | 18.62 | .184 | 4.67 | .310 | 7.87 | .183 | 4.65 | .355 | 9.02 |
| 25S | 1.185 | 30.01 | .965 | 24.51 | .801 | 20.35 | .250 | 6.35 | .310 | 7.87 | .195 | 4.95 | .355 | 9.02 |
| 31P | 1.335 | 33.91 | 1.115 | 28.32 | .883 | 22.43 | .184 | 4.67 | .310 | 7.87 | .183 | 4.65 | .355 | 9.02 |
| 31S | 1.335 | 33.91 | 1.115 | 28.32 | .951 | 24.16 | .250 | 6.35 | .310 | 7.87 | .195 | 4.95 | .355 | 9.02 |
| 37P | 1.485 | 37.72 | 1.265 | 32.13 | 1.033 | 26.24 | .184 | 4.67 | .310 | 7.87 | .183 | 4.65 | .355 | 9.02 |
| 37S | 1.485 | 37.72 | 1.265 | 32.13 | 1.101 | 27.96 | .250 | 6.35 | .310 | 7.87 | .195 | 4.95 | .355 | 9.02 |
| 51P | 1.435 | 36.45 | 1.215 | 30.86 | .983 | 24.97 | .228 | 5.79 | .400 | 10.16 | .183 | 4.65 | .355 | 9.02 |
| 51S | 1.435 | 36.45 | 1.215 | 30.86 | 1.051 | 26.70 | .296 | 7.52 | .400 | 10.16 | .195 | 4.95 | .355 | 9.02 |
| 100P | 2.170 | 55.12 | 1.800 | 45.72 | 1.383 | 35.13 | .270 | 6.86 | .510 | 12.95 | .183 | 4.65 | .430 | 10.92 |
| 100S | 2.170 | 55.12 | 1.800 | 45.72 | 1.451 | 36.86 | .333 | 8.46 | .510 | 12.95 | .195 | 4.95 | .430 | 10.92 |



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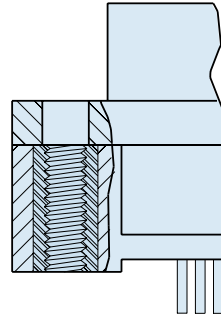
MICRO-D CBS BOARD MOUNT CONNECTOR HARDWARE OPTIONS

C



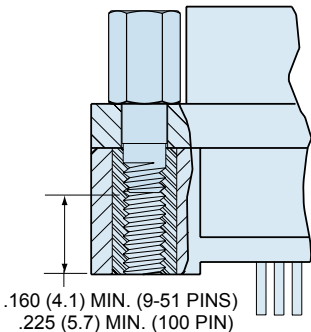
NN Style
Thru-Hole, No Hardware

A DIAMETER
9-51 CONTACTS
.096/.088 (2.44/2.24)
100 CONTACTS
.150/.145 (3.81/3.68)



NU Style
Threaded Insert

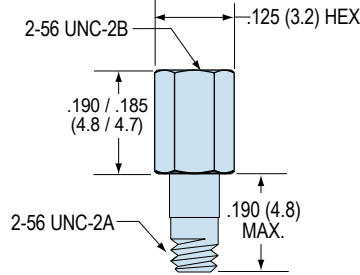
9-51 CONTACTS
NO. 2-56 UNC-2B
100 CONTACTS
NO. 4-40 UNC-2B



PU Style
Jackpost with Threaded Insert

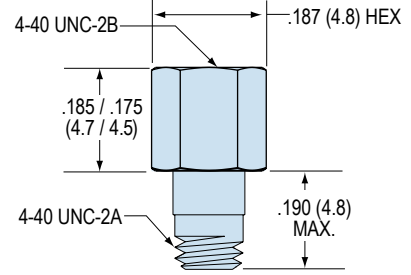
.160 (4.1) MIN. (9-51 PINS)
.225 (5.7) MIN. (100 PIN)

9 - 51 Contacts



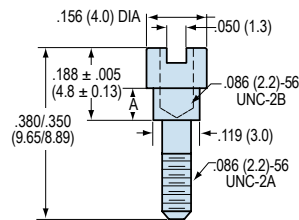
Kit Part Number **500-063-1**
Kit Consists of Two Jackposts

100 Contacts



Kit Part Number **500-063-2**
Kit Consists of Two Jackposts

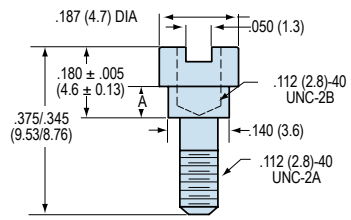
9 - 51 Contacts



.160 (4.1) MIN. (9-51 PINS)
.225 (5.7) MIN. (100 PIN)

RU Style
Jackpost For Rear Panel
Mounting, with Threaded Insert

100 Contacts



| Hardware Option | Panel Thickness | Part Number | A ± .003 (0.08) | Hardware Option | Panel Thickness | Part Number | A ± .003 (0.08) |
|-----------------|-----------------|---------------|--------------------|-----------------|-----------------|---------------|--------------------|
| R2U | 1/32 (0.8) | 177-505-A-2-2 | .024 (0.6) | R2U | 1/32 (0.8) | 177-505-D-4-2 | .024 (0.6) |
| R3U | 3/64 (1.2) | 177-505-A-2-3 | .041 (1.0) | R3U | 3/64 (1.2) | 177-505-D-4-3 | .041 (1.0) |
| R4U | 1/16 (1.6) | 177-505-A-2-4 | .055 (1.4) | R4U | 1/16 (1.6) | 177-505-D-4-4 | .055 (1.4) |
| R5U | 3/32 (2.4) | 177-505-A-2-5 | .086 (2.2) | R5U | 3/32 (2.4) | 177-505-D-4-5 | .086 (2.2) |
| R6U | 1/8 (3.2) | 177-505-A-2-6 | .118 (3.0) | R6U | 1/8 (3.2) | 177-505-D-4-6 | .118 (3.0) |

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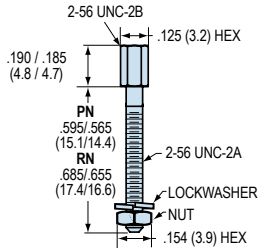
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MICRO-D CBS BOARD MOUNT CONNECTOR HARDWARE OPTIONS



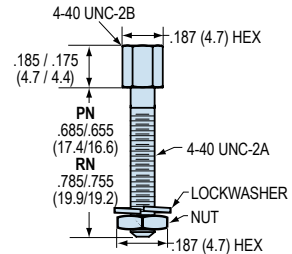
PN Style for .062" PCB
RN Style for .196" PCB
Jackpost Kit

9 - 51 Contacts

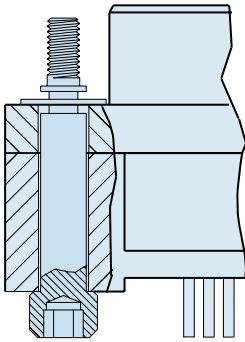


PN Kit Part Number **500-069-2-6**
RN Kit Part Number **500-069-2-7**
Kit Consists of 2 Jackposts, 2 Nuts, 2 Washers

100 Contacts

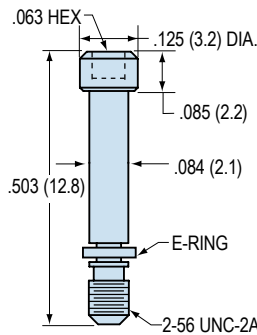


PN Kit Part Number **500-069-4-7**
RN Kit Part Number **500-069-4-8**
Kit Consists of 2 Jackposts, 2 Nuts, 2 Washers



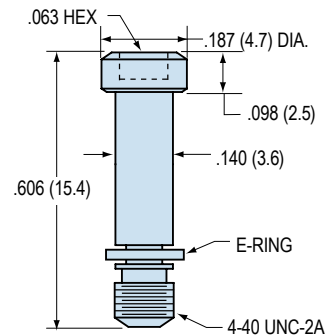
M Style
Hex Head Jackscrew with
E-Ring

9 - 51 Contacts



Kit Part Number **500-080-2**
Kit Consists of 2 Jackscrews and 2 E-Rings

100 Contacts

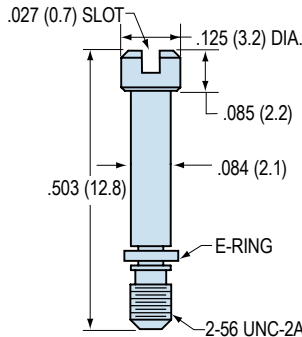


Kit Part Number **500-080-4**
Kit Consists of 2 Jackscrews and 2 E-Rings



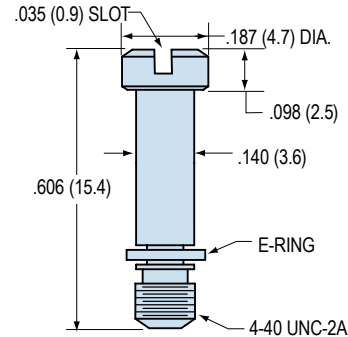
S Style
Slot Head Jackscrew with
E-Ring

9 - 51 Contacts



Kit Part Number **500-081-2**
Kit Consists of 2 Jackscrews and 2 E-Rings

100 Contacts

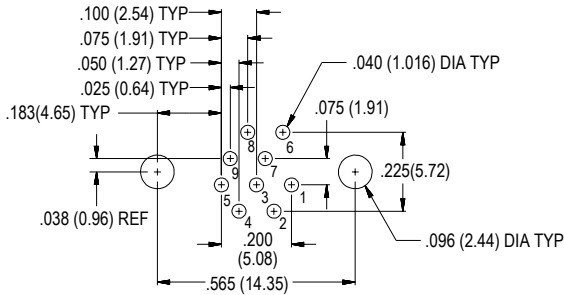


Kit Part Number **500-081-4**
Kit Consists of 2 Jackscrews and 2 E-Rings

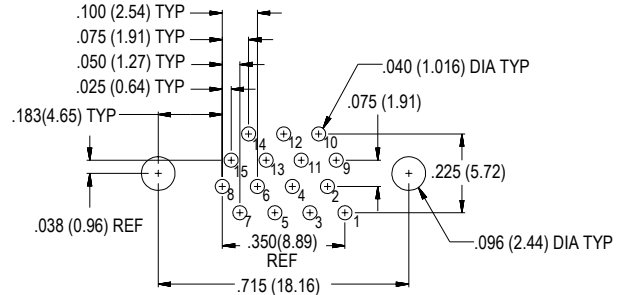
Patterns shown are for connector mounting side of PC board.

MICRO-D CBS BOARD MOUNT CONNECTOR PCB LAYOUTS – PIN CONNECTORS

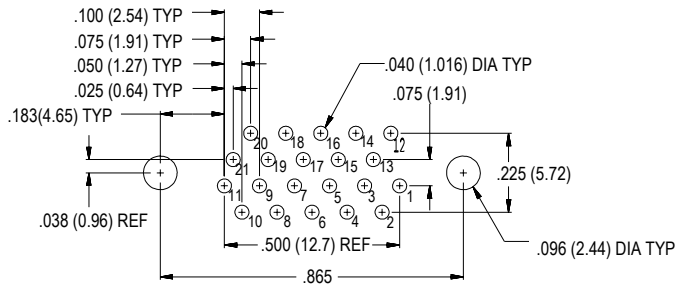
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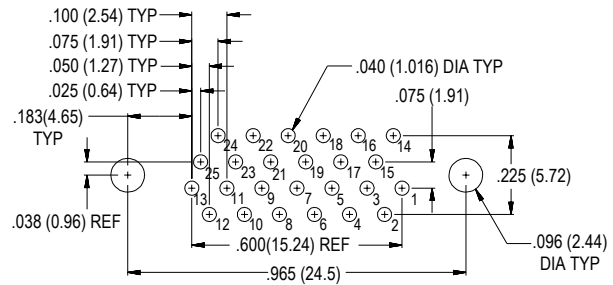
9 PIN MWDM-9PCBS



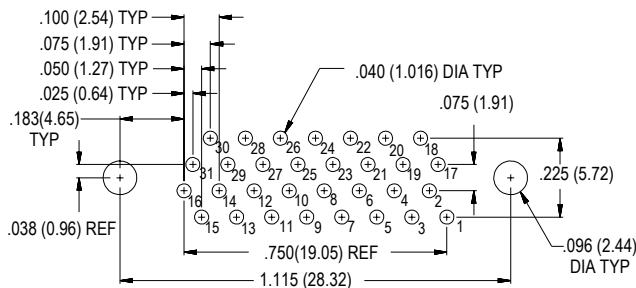
15 PIN MWDM-15PCBS



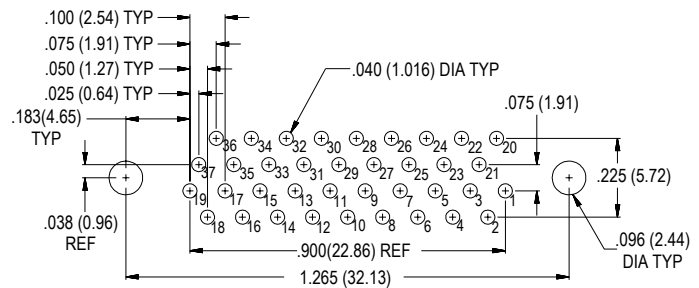
21 PIN MWDM-21PCBS



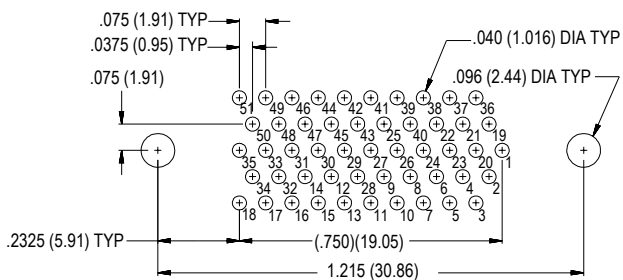
25 PIN MWDM-25PCBS



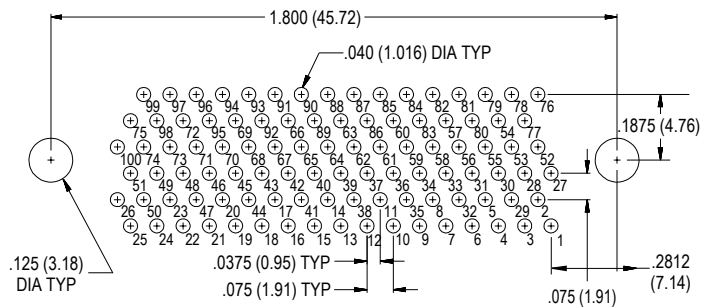
31 PIN MWDM-31PCBS



37 PIN MWDM-37PCBS



51 PIN MWDM-51PCBS



100 PIN MWDM-100PCBS

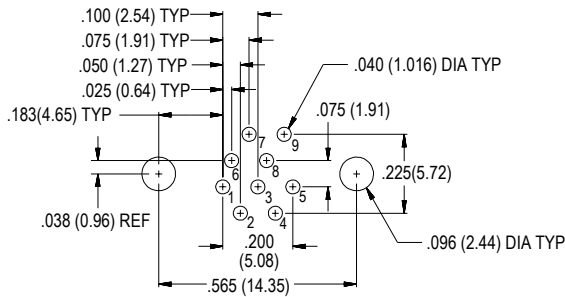
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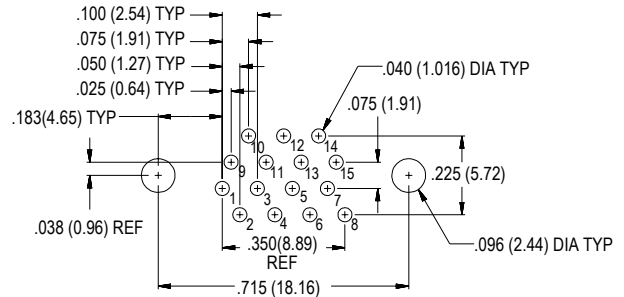
Micro-D
PCB

Patterns shown are for connector mounting side of PC board.

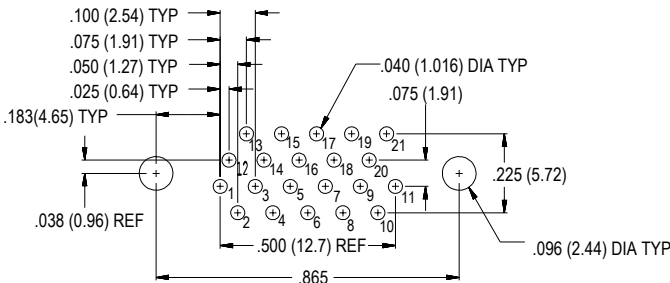
MICRO-D CBS BOARD MOUNT CONNECTOR PCB LAYOUTS – SOCKET CONNECTORS



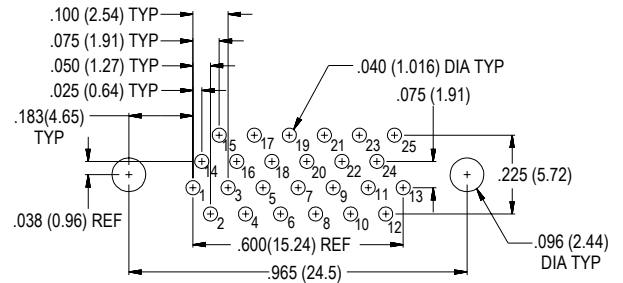
9 Socket MWDM-9SCBS



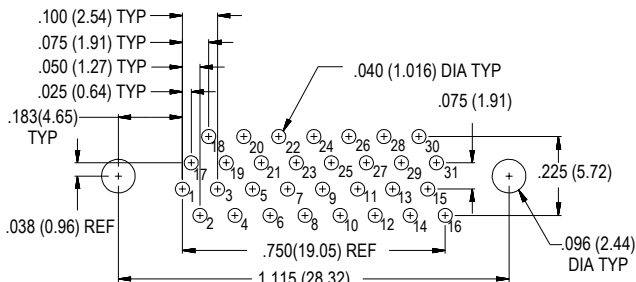
15 Socket MWDM-15SCBS



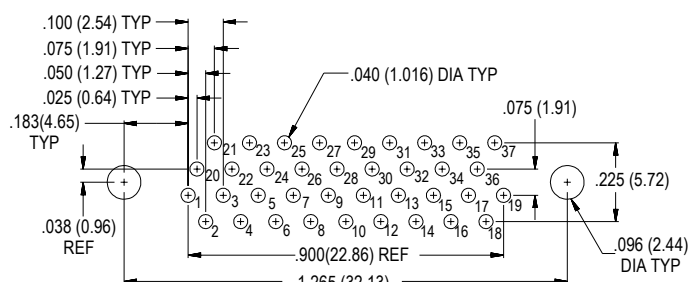
21 Socket MWDM-21SCBS



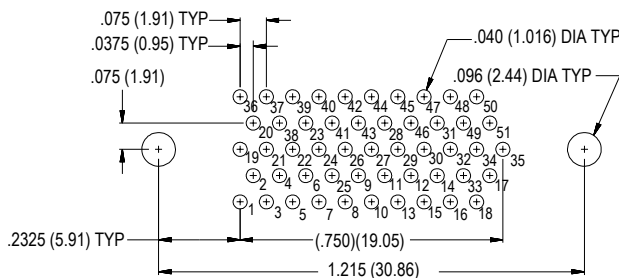
25 Socket MWDM-25SCBS



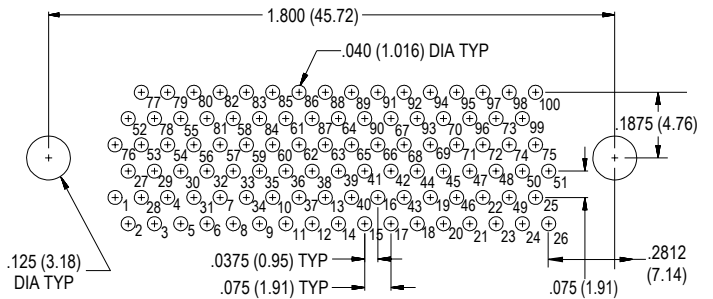
31 Socket MWDM-31SCBS



37 Socket MWDM-37SCBS



51 Socket MWDM-51SCBS



100 Socket MWDM-100SCBS