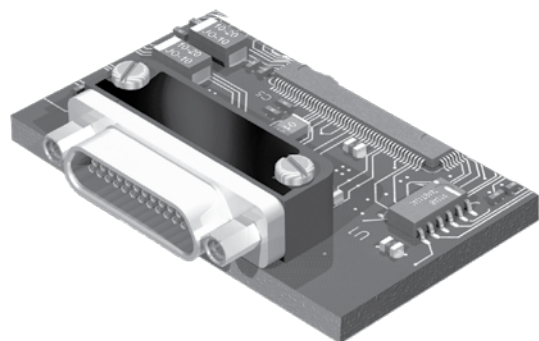


## GMR7590 Right Angle Micro-D Connectors



**Save Space On Your Circuit Board** – These Micro-D connectors feature .075 X .075 inch terminal spacing. Glenair's GMR7590 offers size and weight savings compared to traditional .100" pitch connectors.

**High Performance** – Approved for British Standard BS9000, GMR7590 connectors meet the performance requirements of MIL-DTL-83513. Gold plated TwistPin contacts assure best electrical and mechanical performance.

## HOW TO ORDER GMR7590 RIGHT ANGLE .075" PITCH CONNECTORS

| Series                                                   | Number of Contacts | Contact Type | Tail Length In. (mm.)                | Shell Plating Finish | Hardware Option                                | Gold-Plated Terminal Mod Code                                                                                                                  |
|----------------------------------------------------------|--------------------|--------------|--------------------------------------|----------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| GMR7590<br>Micro-D Metal Shell,<br>Right Angle Mount PCB | 9                  | P<br>Pin     | 1 – .109" (2.76)                     | A – Cadmium          | NN – No Jackpost, No Threaded Insert           | These connectors are solder-dipped in 63/37 tin-lead solder.<br><br>To delete the solder dip and change to gold-plated terminals, add code 513 |
|                                                          | 15                 |              | 2 – .150" (3.81)                     | B – Nickel           | NU – UN Threaded Insert Only, No Jackposts     |                                                                                                                                                |
|                                                          | 21                 |              | 3 – .190" (4.83)                     | C – Allochro         | NM – Metric Threaded Insert Only, No Jackposts |                                                                                                                                                |
|                                                          | 25                 | S<br>Socket  | 4 – .250" (6.35)                     | D – Black Anodize    | SU – Short Jackpost and UN Threaded Insert     |                                                                                                                                                |
|                                                          | 31                 |              | 5 – Staggered Tail Length            | E – Gold             | SM – Short Jackpost and Metric Threaded Insert |                                                                                                                                                |
|                                                          | 37                 |              | Length in Inches<br>± .015<br>(0.38) |                      |                                                |                                                                                                                                                |
|                                                          | 51                 |              |                                      |                      |                                                |                                                                                                                                                |
|                                                          | 100                |              |                                      |                      |                                                |                                                                                                                                                |
| Rear Panel Mount Jackposts and Threaded Inserts          |                    |              |                                      |                      |                                                |                                                                                                                                                |
|                                                          |                    |              |                                      | UN Threads           | Metric Threads                                 | Panel Thickness                                                                                                                                |
|                                                          |                    |              |                                      | TU                   | TM                                             | .094" (2.4)                                                                                                                                    |
|                                                          |                    |              |                                      | VU                   | VM                                             | .062" (1.6)                                                                                                                                    |
|                                                          |                    |              |                                      | WU                   | WM                                             | .047" (1.2)                                                                                                                                    |
|                                                          |                    |              |                                      | XU                   | XM                                             | .031" (0.8)                                                                                                                                    |
|                                                          |                    |              |                                      | YU                   | YM                                             | .023" (0.6)                                                                                                                                    |
| SAMPLE PART NUMBER                                       |                    |              |                                      |                      |                                                |                                                                                                                                                |
| GMR7590                                                  | – 31               | S            | 2                                    | B                    | SU                                             |                                                                                                                                                |

## GMR7590 JACKPOST OPTIONS

| NN                                                     | NU, NM                                                  | SN                                                                | SU, SM                           | TU, VU, WU, XU, YU<br>TM, VM, WM, XM, YM |
|--------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------|----------------------------------|------------------------------------------|
|                                                        |                                                         |                                                                   |                                  |                                          |
| No Jackpost,<br>No Threaded Insert In<br>PCB Mtng Hole | No Jackpost,<br>Threaded Insert In PCB<br>Mounting Hole | Jackpost Installed, No<br>Threaded Insert in PCB<br>Mounting Hole | Jackpost With Threaded<br>Insert | Jackpost for Rear Panel<br>Mounting      |

# GMR7590 Right Angle Micro-D Connectors



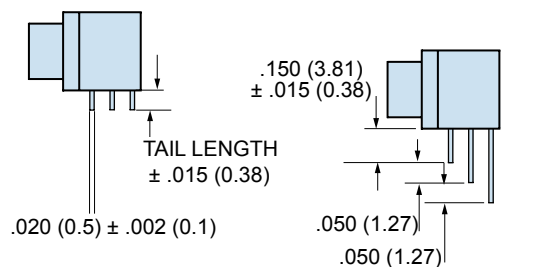
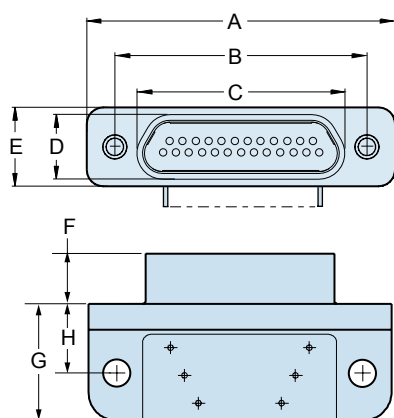
Micro-D  
PCB

## 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 $\mu$ 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      | Beryllium Copper 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                                                                              |



STAGGERED LEADS

SIZES 9 THRU 51 MOUNTING HOLE IS .088/.094 (2.24/2.39)  
SIZE 100 MOUNTING HOLE IS .145/.150 (3.68/3.81)

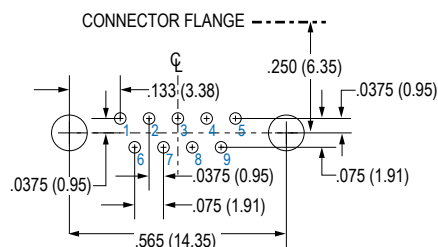
SIZES 9 THRU 51 THREAD SIZE IS #2-56 UNC OR M2.  
SIZE 100 THREAD SIZE IS #4-40 OR M3.

## GMR7590 CONNECTOR DIMENSIONS

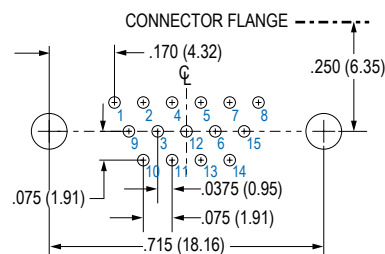
| Layout | A Max. |       | B              |                | C Max. |       | D Max. |       | E Max. |       | F              |                | G Max. |       | H              |                |
|--------|--------|-------|----------------|----------------|--------|-------|--------|-------|--------|-------|----------------|----------------|--------|-------|----------------|----------------|
|        | In.    | mm.   | In. $\pm .005$ | mm. $\pm 0.13$ | In.    | mm.   | In.    | mm.   | In.    | mm.   | In. $\pm .003$ | mm. $\pm 0.08$ | In.    | mm.   | In. $\pm .010$ | mm. $\pm 0.25$ |
| 9P     | .785   | 19.94 | .565           | 14.35          | .335   | 8.51  | .185   | 4.70  | .310   | 7.87  | .183           | 4.65           | .400   | 10.16 | .250           | 6.35           |
| 9S     | .785   | 19.94 | .565           | 14.35          | .400   | 10.16 | .251   | 6.38  | .310   | 7.87  | .195           | 4.95           | .400   | 10.16 | .250           | 6.35           |
| 15P    | .935   | 23.75 | .715           | 18.16          | .485   | 12.32 | .185   | 4.70  | .310   | 7.87  | .183           | 4.65           | .400   | 10.16 | .250           | 6.35           |
| 15S    | .935   | 23.75 | .715           | 18.16          | .550   | 13.97 | .251   | 6.38  | .310   | 7.87  | .195           | 4.95           | .400   | 10.16 | .250           | 6.35           |
| 21P    | 1.085  | 27.56 | .865           | 21.97          | .635   | 16.13 | .185   | 4.70  | .310   | 7.87  | .183           | 4.65           | .400   | 10.16 | .250           | 6.35           |
| 21S    | 1.085  | 27.56 | .865           | 21.97          | .700   | 17.78 | .251   | 6.38  | .310   | 7.87  | .195           | 4.95           | .400   | 10.16 | .250           | 6.35           |
| 25P    | 1.185  | 30.01 | .965           | 24.51          | .735   | 18.67 | .185   | 4.70  | .310   | 7.87  | .183           | 4.65           | .400   | 10.16 | .250           | 6.35           |
| 25S    | 1.185  | 30.01 | .965           | 24.51          | .800   | 20.32 | .251   | 6.38  | .310   | 7.87  | .195           | 4.95           | .400   | 10.16 | .250           | 6.35           |
| 31P    | 1.335  | 33.91 | 1.115          | 28.32          | .885   | 22.48 | .185   | 4.70  | .310   | 7.87  | .183           | 4.65           | .400   | 10.16 | .250           | 6.35           |
| 31S    | 1.335  | 33.91 | 1.115          | 28.32          | .950   | 24.13 | .251   | 6.38  | .310   | 7.87  | .195           | 4.95           | .400   | 10.16 | .250           | 6.35           |
| 37P    | 1.485  | 37.72 | 1.265          | 32.13          | 1.035  | 26.29 | .185   | 4.70  | .310   | 7.87  | .183           | 4.65           | .400   | 10.16 | .250           | 6.35           |
| 37S    | 1.485  | 37.72 | 1.265          | 32.13          | 1.100  | 27.94 | .251   | 6.38  | .310   | 7.87  | .195           | 4.95           | .400   | 10.16 | .250           | 6.35           |
| 51P    | 1.435  | 36.45 | 1.215          | 30.86          | .985   | 25.02 | .228   | 5.79  | .351   | 8.92  | .183           | 4.65           | .490   | 12.45 | .300           | 7.62           |
| 51S    | 1.435  | 36.45 | 1.215          | 30.86          | 1.050  | 26.67 | .294   | 7.47  | .351   | 8.92  | .195           | 4.95           | .490   | 12.45 | .300           | 7.62           |
| 100P   | 2.170  | 55.12 | 1.800          | 45.72          | 1.384  | 35.15 | .271   | 6.88  | .394   | 10.00 | .183           | 4.65           | .660   | 16.76 | .400           | 10.16          |
| 100S   | 2.170  | 55.12 | 1.800          | 45.72          | 1.508  | 38.30 | .394   | 10.00 | .394   | 10.00 | .195           | 4.95           | .660   | 16.76 | .400           | 10.16          |

## GMR7590 CONNECTOR PCB LAYOUTS – PIN CONNECTORS

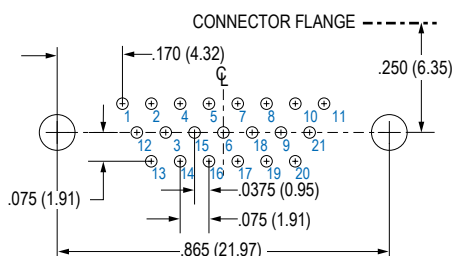
Patterns shown are for connector mounting side of PC board.



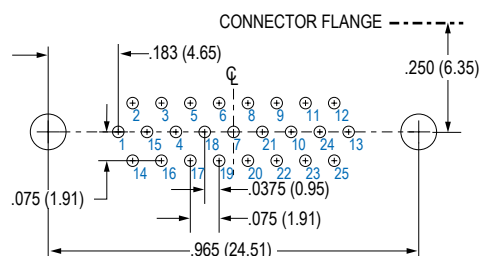
9 PIN



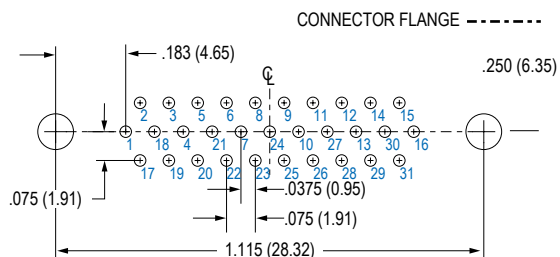
15 PIN



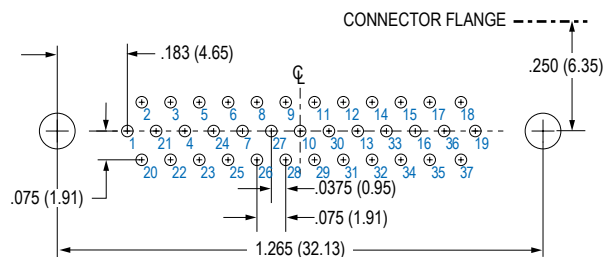
21 PIN



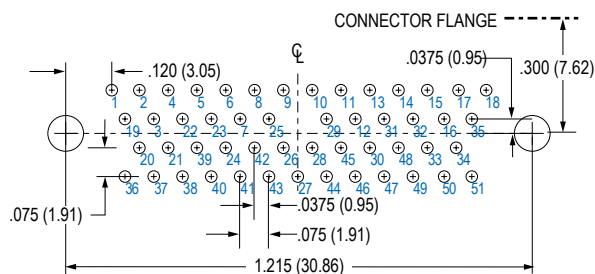
25 PIN



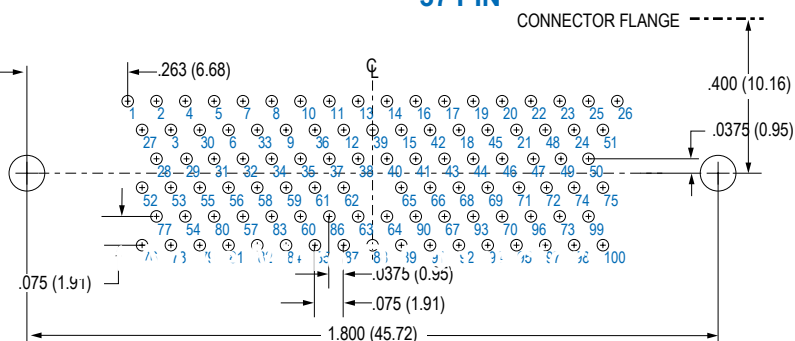
31 PIN



37 PIN



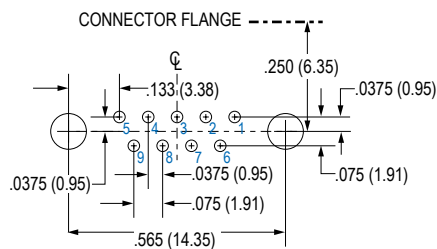
51 PIN



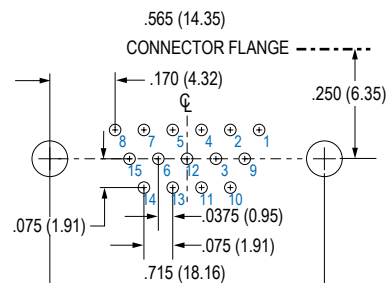
100 PIN

## GMR7590 CONNECTOR PCB LAYOUTS – SOCKET CONNECTORS

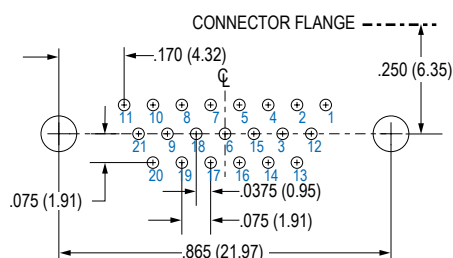
Patterns shown are for connector mounting side of PC board.



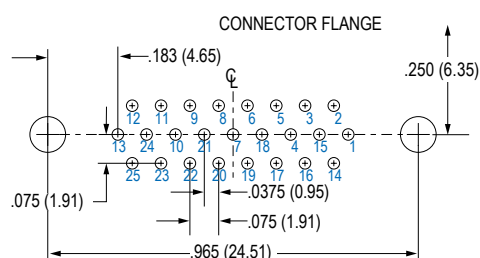
9 SOCKET



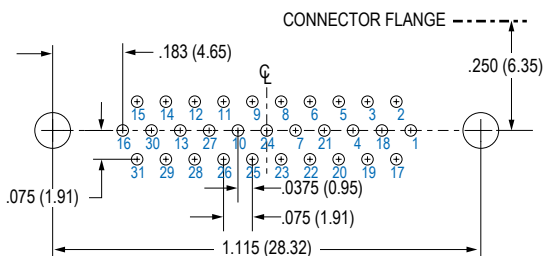
15 SOCKET



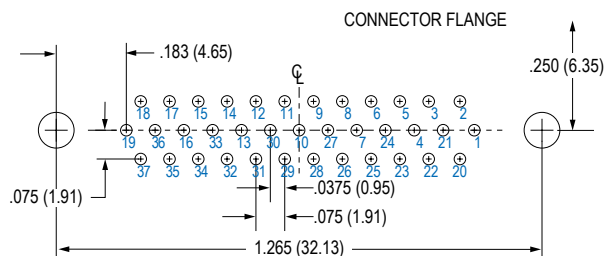
21 SOCKET



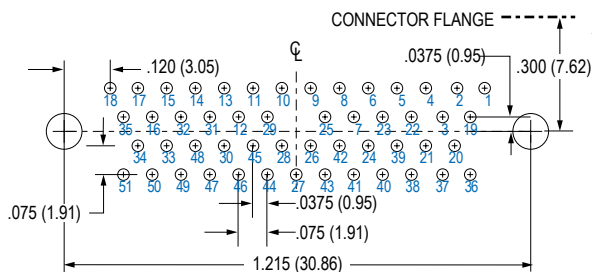
25 SOCKET



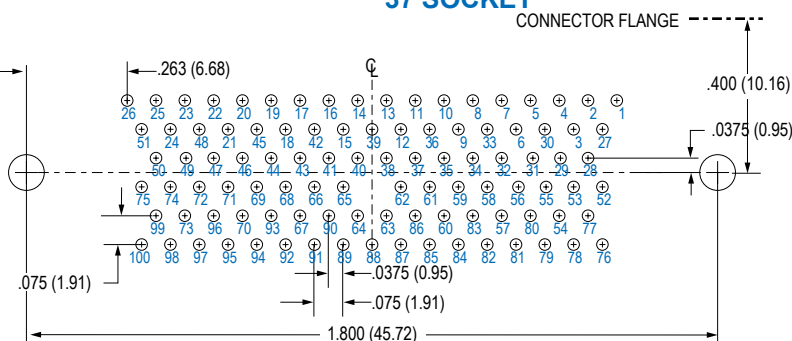
31 SOCKET



37 SOCKET



51 SOCKET



100 SOCKET