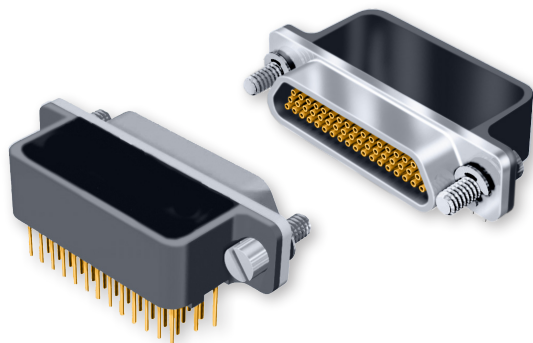




## Micro-D GMR7590C Compact Flange Right Angle Mount Printed Circuit Board Connector



**Innovative Design for Flex Circuits** – These Micro-D connectors answer the need for a compact flex circuit connector. Featuring .075 X .075 inch row spacing. Glenair's GMR7590C accepts standard jackscrews and jackposts, making it ideal for flex-to-board applications.

**High Performance** – GMR7590C connectors meet the performance requirements of MIL-DTL-83513. Gold plated TwistPin contacts assure best electrical and mechanical performance.

### How To Order GMR7590 Connectors

| Sample Part Number            | GMR7590C                                                                                                                                   | -31 | S | 2 | B | S1 | 513 |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----|---|---|---|----|-----|
| Series                        | GMR7590C Micro-D Right Angle Mount Connector                                                                                               |     |   |   |   |    |     |
| Contact Layout                | 9, 15, 21, 25, 31, 37, 51, 100 (See Table II)                                                                                              |     |   |   |   |    |     |
| Contact Type                  | P - Pin S - Socket                                                                                                                         |     |   |   |   |    |     |
| Tail Length in Inches (mm.)   | 1 - .109" (2.76) 2 - .150" (3.81) 3 - .190" (4.83)<br>4 - .250" (6.35) 5 - Staggered Tail Length<br>Length in Inches $\pm$ .015 (0.38)     |     |   |   |   |    |     |
| Shell Plating Finish          | Aluminum Shell Stainless Steel Shell<br>A - Cadmium B - Nickel C - Allochrome F - Passivated<br>D - Black Anodize E - Gold                 |     |   |   |   |    |     |
| Hardware                      | B, P, M, M1, S, S1, L, K, F, R (See Table I)                                                                                               |     |   |   |   |    |     |
| Gold-Plated Terminal Mod Code | These connectors are solder-dipped in 60/40 tin-lead solder.<br>To delete the solder dip and change to gold-plated terminals, add code 513 |     |   |   |   |    |     |

Table I: Mounting Hardware

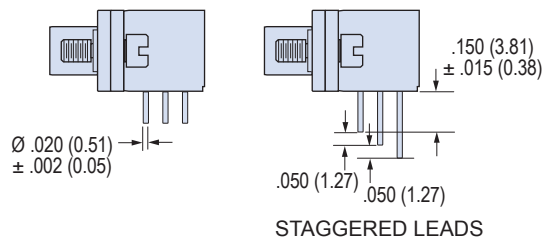
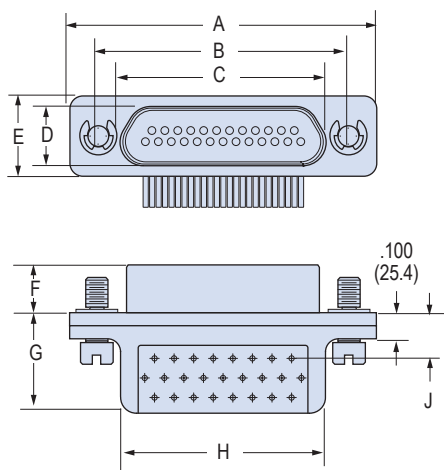
| B                                            | P                                                   | M                                            | M1                                                       | S                                             | S1                                                        | L                                          | K                                                       | F                                             | R                                            |
|----------------------------------------------|-----------------------------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------------------------------|-----------------------------------------------------------|--------------------------------------------|---------------------------------------------------------|-----------------------------------------------|----------------------------------------------|
|                                              |                                                     |                                              |                                                          |                                               |                                                           |                                            |                                                         |                                               |                                              |
| Thru-Hole<br>Order<br>Hardware<br>Separately | Jackpost<br>Removable<br>Includes Nut<br>and Washer | Jackscrew<br>Hex Head<br>Removable<br>E-ring | Jackscrew<br>Hex Head<br>Removable<br>E-ring<br>Extended | Jackscrew<br>Slot Head<br>Removable<br>E-ring | Jackscrew<br>Slot Head<br>Removable<br>E-ring<br>Extended | Jackscrew<br>Hex Head<br>Non-<br>Removable | Jackscrew<br>Slot Head<br>Non-<br>Removable<br>Extended | Float Mount<br>For Front<br>Panel<br>Mounting | Float Mount<br>For Rear<br>Panel<br>Mounting |

# Micro-D GMR7590C Compact Flange Right Angle Mount Printed Circuit Board Connector



Micro-D PCB

Table II: Dimensions



SIZES 9 THRU 51 MOUNTING HOLE IS .088/.096 (2.24/2.39)  
SIZE 100 MOUNTING HOLE IS .145/.151 (3.68/3.81)

SIZES 9 THRU 51 THREAD SIZE IS #2-56 UNC  
SIZE 100 THREAD SIZE IS #4-40

| Layout | A Max. |       | B          |            | C Max. |       | D Max. |      | E Max. |       | F          |            | G Max. |       | H          |            |
|--------|--------|-------|------------|------------|--------|-------|--------|------|--------|-------|------------|------------|--------|-------|------------|------------|
|        | In.    | mm.   | In. ± .005 | mm. ± 0.13 | In.    | mm.   | In.    | mm.  | In.    | mm.   | In. ± .003 | mm. ± 0.08 | In.    | mm.   | In. ± .010 | mm. ± 0.25 |
| 9P     | .785   | 19.94 | .565       | 14.35      | .335   | 8.51  | .185   | 4.70 | .310   | 7.87  | .183       | 4.65       | .400   | 10.16 | .400       | 10.16      |
| 9S     | .785   | 19.94 | .565       | 14.35      | .400   | 10.16 | .251   | 6.38 | .310   | 7.87  | .195       | 4.95       | .400   | 10.16 | .400       | 10.16      |
| 15P    | .935   | 23.75 | .715       | 18.16      | .485   | 12.32 | .185   | 4.70 | .310   | 7.87  | .183       | 4.65       | .400   | 10.16 | .530       | 13.46      |
| 15S    | .935   | 23.75 | .715       | 18.16      | .550   | 13.97 | .251   | 6.38 | .310   | 7.87  | .195       | 4.95       | .400   | 10.16 | .530       | 13.46      |
| 21P    | 1.085  | 27.56 | .865       | 21.97      | .635   | 16.13 | .185   | 4.70 | .310   | 7.87  | .183       | 4.65       | .400   | 10.16 | .700       | 17.78      |
| 21S    | 1.085  | 27.56 | .865       | 21.97      | .700   | 17.78 | .251   | 6.38 | .310   | 7.87  | .195       | 4.95       | .400   | 10.16 | .700       | 17.78      |
| 25P    | 1.185  | 30.01 | .965       | 24.51      | .735   | 18.67 | .185   | 4.70 | .310   | 7.87  | .183       | 4.65       | .400   | 10.16 | .800       | 20.32      |
| 25S    | 1.185  | 30.01 | .965       | 24.51      | .800   | 20.32 | .251   | 6.38 | .310   | 7.87  | .195       | 4.95       | .400   | 10.16 | .800       | 20.32      |
| 31P    | 1.335  | 33.91 | 1.115      | 28.32      | .885   | 22.48 | .185   | 4.70 | .310   | 7.87  | .183       | 4.65       | .400   | 10.16 | .950       | 24.13      |
| 31S    | 1.335  | 33.91 | 1.115      | 28.32      | .950   | 24.13 | .251   | 6.38 | .310   | 7.87  | .195       | 4.95       | .400   | 10.16 | .950       | 24.13      |
| 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 | 1.100      | 27.94      |
| 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 | 1.100      | 27.94      |
| 51P    | 1.435  | 36.45 | 1.215      | 30.86      | .985   | 25.02 | .228   | 5.79 | .351   | 8.92  | .183       | 4.65       | .490   | 12.45 | 1.03       | 26.16      |
| 51S    | 1.435  | 36.45 | 1.215      | 30.86      | 1.050  | 26.67 | .296   | 7.52 | .351   | 8.92  | .195       | 4.95       | .490   | 12.45 | 1.03       | 26.16      |
| 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 | 1.500      | 38.13      |
| 100S   | 2.170  | 55.12 | 1.800      | 45.72      | 1.451  | 36.86 | .333   | 8.46 | .394   | 10.00 | .195       | 4.95       | .660   | 16.76 | 1.500      | 38.13      |

## 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

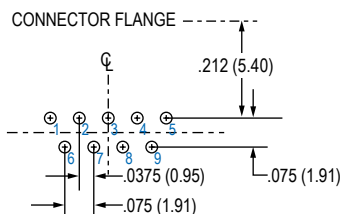
|                  |                                                                                                       |
|------------------|-------------------------------------------------------------------------------------------------------|
| Connector Shell  | Aluminum Alloy 6061 or Stainless Steel, 300 Series, passivated. See Ordering Info for Plating Options |
| Insulator, Tray  | Liquid Crystal Polymer (LCP)<br>Polyphenylene Sulfide (PPS)                                           |
| 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                                                                              |



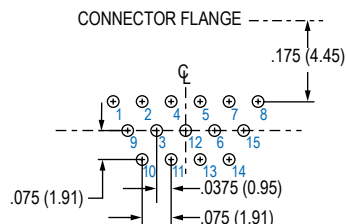
# Micro-D GMR7590C Compact Flange Right Angle Mount Printed Circuit Board Connector

## GMR7590C Connector PCB Layouts – Pin Connectors

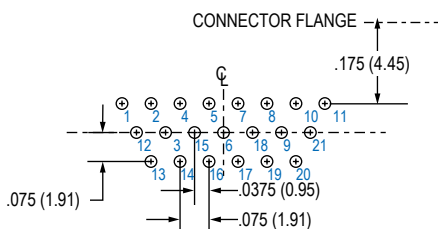
Patterns shown are for connector mounting side of PC board.



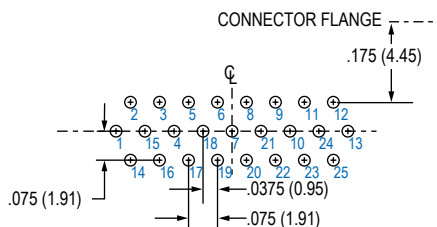
**9 PIN**



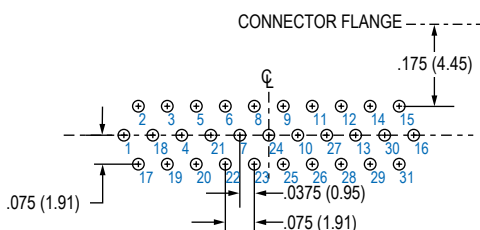
**15 PIN**



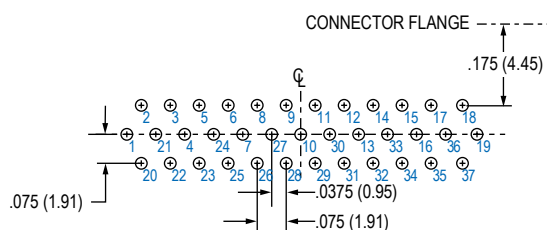
**21 PIN**



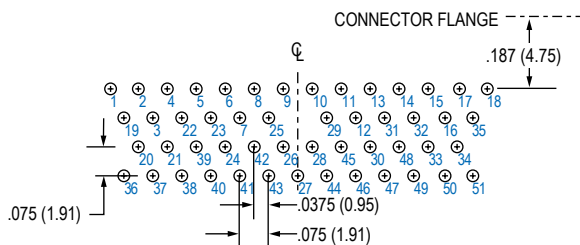
**25 PIN**



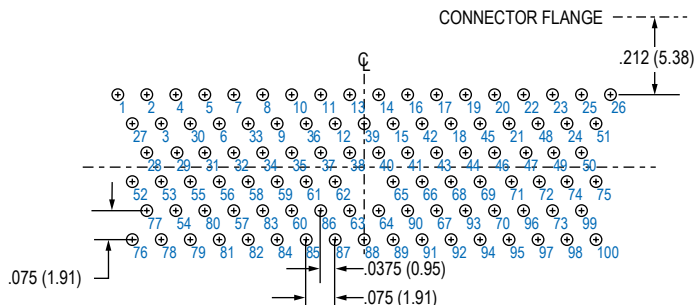
**31 PIN**



**37 PIN**



**51 PIN**



**100 PIN**

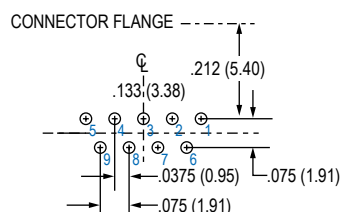
# Micro-D GMR7590C Compact Flange Right Angle Mount Printed Circuit Board Connector



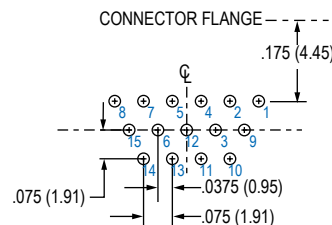
Micro-D PCB

## GMR7590C Connector PCB Layouts – Socket Connectors

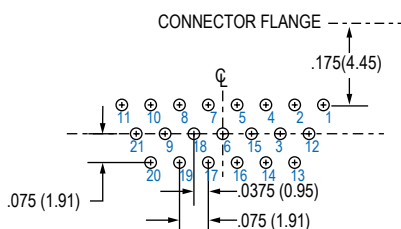
Patterns shown are for connector mounting side of PC board.



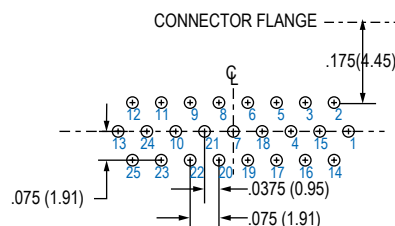
**9 SOCKET**



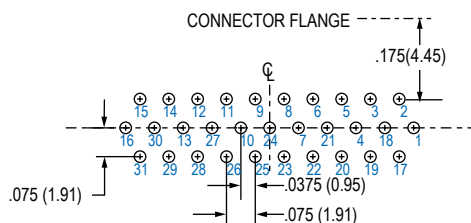
**15 SOCKET**



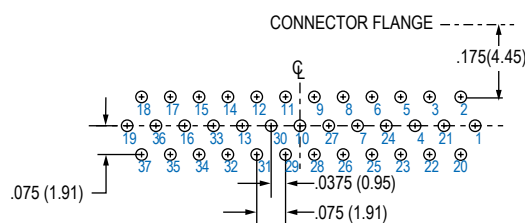
**21 SOCKET**



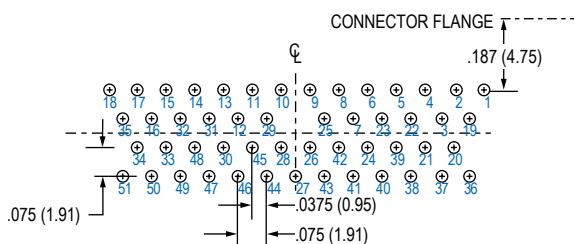
**25 SOCKET**



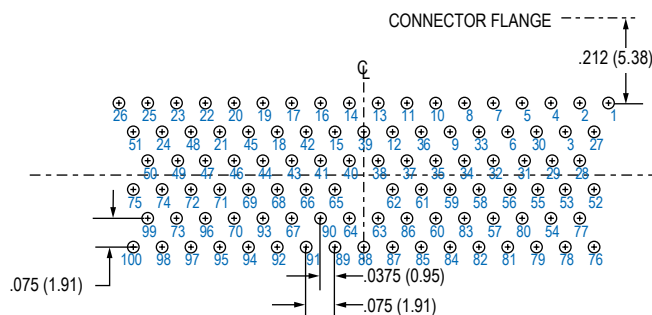
**31 SOCKET**



**37 SOCKET**



**51 SOCKET**



**100 SOCKET**