



## Micro-D MWDM Back-To-Back Metal Shell Unshielded Cable Assembly

B



**Save Time and Money With Back-To-Back Cables**— these Micro-D connectors feature crimp wire terminations and epoxy encapsulation. The installed cost is lower than terminating solder cup connectors.

**100% Certified**— All back-to-back assemblies are 100% checked for continuity, resistance, voltage and insulation resistance.

**Hardware Note**— If jackposts are required on one end and jackscrews on the other, use hardware designator "B" (no Hardware installed), and order hardware kits separately.

How To Order Back-to-Back Cable Assembly

| Sample Part Number        | MWDM                                                                                                                                                                              | 2 | L- | 25 | GS- | 4 | K | 7- | 18 | B |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----|----|-----|---|---|----|----|---|
| Series                    | MWDM Glenair Micro-D                                                                                                                                                              |   |    |    |     |   |   |    |    |   |
| Shell Material and Finish | Aluminum Shell      Stainless Steel Shell<br><b>1</b> - Cadmium <b>2</b> - Nickel <b>3</b> - Passivated<br><b>4</b> - Black Anodize<br><b>5</b> - Gold <b>6</b> - Chem Film       |   |    |    |     |   |   |    |    |   |
| Insulator Material        | <b>L</b> - LCP or PPS<br>LCP - 30% Glass-Filled Liquid Crystal Polymer<br>PPS - 40% Glass Filled Polyphenylene Sulfide                                                            |   |    |    |     |   |   |    |    |   |
| Contact Layout            | <b>9, 15, 21, 25, 31, 37, 51, 51-2, 67, 69, 75, 100, 130</b>                                                                                                                      |   |    |    |     |   |   |    |    |   |
| Connector Type            | <b>GP</b> – Pin (Plug) Connector Both Ends<br><b>GS</b> – Socket (Receptacle) Connector Both Ends<br><b>CS</b> – Pin Connector to Socket Connector                                |   |    |    |     |   |   |    |    |   |
| Wire Gage (AWG)           | <b>4</b> - #24 <b>6</b> - #26 <b>8</b> - #28 <b>0</b> - #30 (J wire type only)                                                                                                    |   |    |    |     |   |   |    |    |   |
| Wire Type                 | <b>K</b> – M22759/11 <b>J</b> – M22759/33 <b>E</b> – NEMA HP3-EB<br>600 VRMS Teflon® (TFE)      600 VRMS Modified Cross-Linked Tefzel® (ETFE)      600 VRMS Type E M16878/4 (TFE) |   |    |    |     |   |   |    |    |   |
| Wire Color                | <b>1</b> – White <b>2</b> – Yellow<br><b>5</b> – Color-Coded Stripes Per MIL-STD-681 (up to 51 colors)<br><b>7</b> – Ten Color Repeating                                          |   |    |    |     |   |   |    |    |   |
| Wire Length Inches        | <b>18</b> - Wire Length In Inches. "18" Specifies 18 Inches. (2" Min. for 2 row, 3" Min. for 3 row, 4" Min. for 4 row)                                                            |   |    |    |     |   |   |    |    |   |
| Hardware                  | <b>B, P, M, M1, S, S1, L, K, F, R, H</b>                                                                                                                                          |   |    |    |     |   |   |    |    |   |

Table I: Mounting Hardware

| B         | P        | M                  | M1                           | S                   | S1                            | L                                | K                                          | F                                    | R                                   | H               |
|-----------|----------|--------------------|------------------------------|---------------------|-------------------------------|----------------------------------|--------------------------------------------|--------------------------------------|-------------------------------------|-----------------|
|           |          |                    |                              |                     |                               |                                  |                                            |                                      |                                     |                 |
| Thru-Hole | Jackpost | Hex Head Jackscrew | Hex Head Jackscrew, Extended | Slot Head Jackscrew | Slot Head Jackscrew, Extended | Hex Head Jackscrew Non-Removable | Slot Head Jackscrew Non-Removable Extended | Float Mount For Front Panel Mounting | Float Mount For Rear Panel Mounting | Threaded Insert |

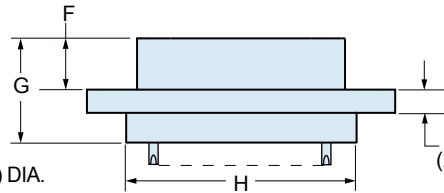
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Table II: Dimensions



9-69 CONTACTS: .096/.088 (2.43/2.23) DIA.  
75-130 CONTACTS: .151/.145 (3.81/3.68) DIA.



.093 ± .005  
(2.36 ± 0.13)



B

| Layout | A Max. |       | B          |            | C Max. |       | D Max. |      | E Max. |       | F          |            | G Max. |       | H Max. |       | J Max. |      |
|--------|--------|-------|------------|------------|--------|-------|--------|------|--------|-------|------------|------------|--------|-------|--------|-------|--------|------|
|        | In.    | mm.   | In. ± .003 | mm. ± 0.08 | In.    | mm.   | In.    | mm.  | In.    | mm.   | In. ± .003 | mm. ± 0.08 | In.    | mm.   | In.    | mm.   | In.    | mm.  |
| 9P     | .785   | 19.94 | .565       | 14.35      | .333   | 8.46  | .184   | 4.67 | .308   | 7.82  | .183       | 4.65       | .416   | 10.57 | .400   | 10.16 | .270   | 6.86 |
| 9S     | .785   | 19.94 | .565       | 14.35      | .400   | 10.16 | .250   | 6.35 | .308   | 7.82  | .195       | 4.95       | .429   | 10.90 | .400   | 10.16 | .270   | 6.86 |
| 15P    | .935   | 23.75 | .715       | 18.16      | .483   | 12.27 | .184   | 4.67 | .308   | 7.82  | .183       | 4.65       | .416   | 10.57 | .550   | 13.97 | .270   | 6.86 |
| 15S    | .935   | 23.75 | .715       | 18.16      | .551   | 14.00 | .250   | 6.35 | .308   | 7.82  | .195       | 4.95       | .429   | 10.90 | .550   | 13.97 | .270   | 6.86 |
| 21P    | 1.085  | 27.56 | .865       | 21.97      | .633   | 16.08 | .184   | 4.67 | .308   | 7.82  | .183       | 4.65       | .416   | 10.57 | .700   | 17.78 | .270   | 6.86 |
| 21S    | 1.085  | 27.56 | .865       | 21.97      | .701   | 17.81 | .250   | 6.35 | .308   | 7.82  | .195       | 4.95       | .429   | 10.90 | .700   | 17.78 | .270   | 6.86 |
| 25P    | 1.185  | 30.01 | .965       | 24.51      | .733   | 18.62 | .184   | 4.67 | .308   | 7.82  | .183       | 4.65       | .416   | 10.57 | .800   | 20.32 | .270   | 6.86 |
| 25S    | 1.185  | 30.01 | .965       | 24.51      | .801   | 20.35 | .250   | 6.35 | .308   | 7.82  | .195       | 4.95       | .429   | 10.90 | .800   | 20.32 | .270   | 6.86 |
| 31P    | 1.335  | 33.91 | 1.115      | 28.32      | .883   | 22.43 | .184   | 4.67 | .308   | 7.82  | .183       | 4.65       | .416   | 10.57 | .950   | 24.13 | .270   | 6.86 |
| 31S    | 1.335  | 33.91 | 1.115      | 28.32      | .951   | 24.16 | .250   | 6.35 | .308   | 7.82  | .195       | 4.95       | .429   | 10.90 | .950   | 24.13 | .270   | 6.86 |
| 37P    | 1.485  | 37.72 | 1.265      | 32.13      | 1.033  | 26.24 | .184   | 4.67 | .308   | 7.82  | .183       | 4.65       | .416   | 10.57 | 1.100  | 27.94 | .270   | 6.86 |
| 37S    | 1.485  | 37.72 | 1.265      | 32.13      | 1.101  | 27.96 | .250   | 6.35 | .308   | 7.82  | .195       | 4.95       | .429   | 10.90 | 1.100  | 27.94 | .270   | 6.86 |
| 51P    | 1.435  | 36.45 | 1.215      | 30.86      | .983   | 24.97 | .228   | 5.79 | .351   | 8.92  | .183       | 4.65       | .416   | 10.57 | 1.050  | 26.67 | .310   | 7.87 |
| 51S    | 1.435  | 36.45 | 1.215      | 30.86      | 1.051  | 26.70 | .296   | 7.52 | .351   | 8.92  | .195       | 4.95       | .429   | 10.90 | 1.050  | 26.67 | .310   | 7.87 |
| 51-2P  | 1.835  | 46.61 | 1.615      | 41.02      | 1.384  | 35.15 | .184   | 4.67 | .310   | 7.87  | .183       | 4.65       | .416   | 10.57 | 1.450  | 36.83 | .270   | 6.86 |
| 51-2S  | 1.835  | 46.61 | 1.615      | 41.02      | 1.450  | 36.83 | .250   | 6.35 | .310   | 7.87  | .195       | 4.95       | .429   | 10.90 | 1.450  | 36.83 | .270   | 6.86 |
| 67P    | 2.235  | 56.77 | 2.015      | 51.18      | 1.784  | 45.31 | .184   | 4.67 | .310   | 7.87  | .183       | 4.65       | .416   | 10.57 | 1.850  | 36.83 | .270   | 6.86 |
| 67S    | 2.235  | 56.77 | 2.015      | 51.18      | 1.850  | 46.99 | .250   | 6.35 | .310   | 7.87  | .195       | 4.95       | .429   | 10.90 | 1.850  | 36.83 | .270   | 6.86 |
| 69P    | 1.735  | 44.07 | 1.515      | 38.48      | 1.284  | 32.61 | .228   | 5.79 | .351   | 8.92  | .183       | 4.65       | .416   | 10.57 | 1.350  | 34.29 | .310   | 7.87 |
| 69S    | 1.735  | 44.07 | 1.515      | 38.48      | 1.350  | 34.29 | .296   | 7.52 | .351   | 8.92  | .195       | 4.95       | .429   | 10.90 | 1.350  | 34.29 | .310   | 7.87 |
| 75P    | 2.080  | 52.8  | 1.705      | 43.3       | 1.384  | 35.2  | .228   | 5.8  | .351   | 8.9   | .183       | 4.65       | .416   | 10.6  | 1.440  | 36.6  | .310   | 7.87 |
| 75S    | 2.080  | 52.8  | 1.705      | 43.3       | 1.450  | 36.8  | .296   | 7.5  | .351   | 8.9   | .195       | 4.95       | .429   | 10.9  | 1.440  | 36.6  | .310   | 7.87 |
| 100P   | 2.170  | 55.12 | 1.800      | 45.72      | 1.383  | 35.13 | .270   | 6.86 | .394   | 10.01 | .183       | 4.65       | .416   | 10.57 | 1.442  | 36.63 | .360   | 9.14 |
| 100S   | 2.170  | 55.12 | 1.800      | 45.72      | 1.451  | 36.86 | .333   | 8.46 | .394   | 10.01 | .195       | 4.95       | .429   | 10.90 | 1.442  | 36.63 | .360   | 9.14 |
| 130P   | 2.520  | 64.00 | 2.160      | 54.86      | 1.735  | 44.07 | .270   | 6.86 | .394   | 10.01 | .183       | 4.65       | .416   | 10.57 | 1.780  | 45.21 | .360   | 9.14 |
| 130S   | 2.520  | 64.00 | 2.160      | 54.86      | 1.795  | 45.60 | .333   | 8.46 | .394   | 10.01 | .195       | 4.95       | .429   | 10.90 | 1.780  | 45.21 | .360   | 9.14 |

## 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        | Liquid Crystal Polymer (LCP)/ Polyphenyl Sulfide (PPS)                                                |
| Interfacial Seal | Fluorosilicone Rubber, Blue                                                                           |
| Pin Contact      | Beryllium Copper Gold over Nickel Plating                                                             |
| Socket Contact   | Copper Alloy Gold Over Nickel Plating                                                                 |
| Hardware         | 300 Series Stainless Steel                                                                            |
| Encapsulant      | Epoxy Resin Hysol EE4215                                                                              |