

# SERIES 28 HiPer-D® Combo Connectors



## 280-047S combo cable socket connectors with standard mounting flange, crimp termination



Combo HiPer-D® socket connectors feature size #20 signal contacts and size #8 power or coax contacts. **Size #8 contacts are ordered separately.** The HiPer-D® features a rugged machined aluminum shell, waterproof sealing and optional ground springs for improved resistance to electromagnetic interference. Size #20 contacts are packaged with connector. Terminate contacts with crimp tools purchased separately. Glass-reinforced thermoset epoxy insulators, copper alloy retention clips. Fluorosilicone rear grommet meets IP67 immersion requirement. 1000 VAC, 7.5 Amps (#20), up to 40 Amps with size #8 power contacts.

| How To Order                   |                                                                                                                                                                                                                                                                                    |       |    |   |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----|---|
| Sample Part Number             | 280-047S                                                                                                                                                                                                                                                                           | 3-5W5 | MT | P |
| Basic Part Number              | 280-047S                                                                                                                                                                                                                                                                           |       |    |   |
| Shell Size-Contact Arrangement | See Shell Size - Contact Arrangements Table                                                                                                                                                                                                                                        |       |    |   |
| Shell Finish                   | <b>ME</b> = Electroless Nickel (RoHS) <b>Z2</b> = Gold (RoHS)<br><b>MT</b> = Nickel-PTFE (RoHS) <b>Z1</b> = Passivated Stainless Steel (RoHS)<br><b>JF</b> = Cadmium with Yellow Chromate                                                                                          |       |    |   |
| Mating Hardware                | <b>N</b> = No Hardware (Through-Hole) <b>K</b> = Jackscrew, Slot Head, Extended Length<br><b>P</b> = #4-40 Female Jackpost <b>S</b> = Screwlock, Male, Hex Head, Low Profile<br><b>L</b> = Jackscrew, Hex Head, Low Profile <b>T</b> = Screwlock, Male, Slot Head, Extended Length |       |    |   |

| Contact Arrangements    |                      |    |
|-------------------------|----------------------|----|
| Shell Size-Contact Arr. | Contact Size and Qty |    |
|                         | #20                  | #8 |
| 1-2W2                   |                      | 2  |
| 1-5W1                   | 4                    | 1  |
| 2-3W3                   |                      | 3  |
| 2-7W2                   | 5                    | 2  |
| 2-11W1                  | 10                   | 1  |
| 3-5W5                   |                      | 5  |
| 3-9W4                   | 5                    | 4  |
| 3-13W3                  | 10                   | 3  |
| 3-17W2                  | 15                   | 2  |
| 3-21W1                  | 20                   | 1  |
| 4-8W8                   |                      | 8  |
| 4-13W6                  | 7                    | 6  |
| 4-17W5                  | 12                   | 5  |
| 4-21WA4                 | 17                   | 4  |
| 4-25W3                  | 22                   | 3  |
| 4-27W2                  | 25                   | 2  |
| 5-24W7                  | 17                   | 7  |
| 5-36W4                  | 32                   | 4  |
| 5-43W2                  | 41                   | 2  |
| 5-47W1                  | 46                   | 1  |

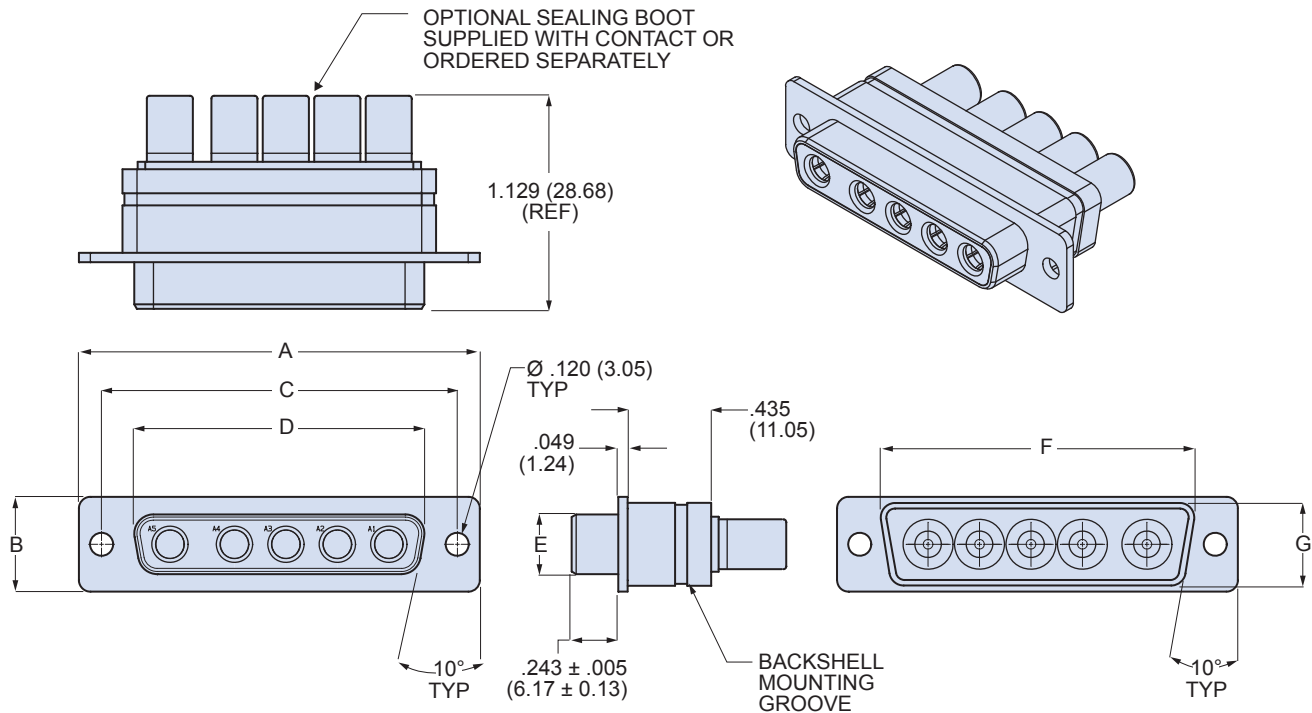
| Mating Hardware                                 |                                                         |
|-------------------------------------------------|---------------------------------------------------------|
| <b>N</b><br>Thru-Hole<br>No Hardware<br>        | <b>P</b><br>Female Jackpost<br>                         |
| <b>S</b><br>Captive Screwlock,<br>Hex Head<br>  | <b>L</b><br>Captive Jackscrew,<br>Hex Head<br>          |
| <b>K</b><br>Slot-Head Extended<br>Jackscrew<br> | <b>T</b><br>Slot-Head Extended<br>Captive Screwlock<br> |

| Specifications        |                          |
|-----------------------|--------------------------|
| Current Rating        | #20 7.5 AMPS, #8 40 AMPS |
| Test Voltage          | 1000 VAC RMS             |
| Insulation Resistance | 5000 megohms minimum     |
| Operating Temperature | -65° C. to +200° C.      |
| Ingress Protection    | IP 67                    |
| Shock                 | 300 g.                   |
| Vibration, Random     | 43.92 g.                 |

| Materials and Finishes |                                   |
|------------------------|-----------------------------------|
| Shell                  | Aluminum alloy                    |
| Contacts               | Copper alloy, 50 microinches gold |
| Insulators             | Thermoset epoxy                   |
| Retention Clips        | Copper alloy                      |
| Grommet                | Fluorosilicone rubber             |
| Hardware               | 300 series stainless steel        |

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### 280-047S DIMENSIONS



| Dimensions    |              |              |              |              |               |              |              |              |              |              |              |              |              |              |
|---------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Shell<br>Size | A            |              | B            |              | C Basic       |              | D            |              | E            |              | F            |              | G            |              |
|               | in<br>± .015 | mm<br>± 0.38 | in<br>± .015 | mm<br>± 0.38 | in.<br>± .005 | mm<br>± 0.13 | in<br>± .005 | mm<br>± 0.13 | in<br>± .005 | mm<br>± 0.13 | in<br>± .005 | mm<br>± 0.13 | in<br>± .005 | mm<br>± 0.13 |
| 1             | 1.213        | 30.81        | .494         | 12.55        | .984          | 24.99        | .643         | 16.33        | .311         | 7.90         | .769         | 19.53        | .432         | 10.97        |
| 2             | 1.541        | 39.14        | .494         | 12.55        | 1.312         | 33.32        | .971         | 24.66        | .311         | 7.90         | 1.093        | 27.76        | .432         | 10.97        |
| 3             | 2.088        | 53.04        | .494         | 12.55        | 1.852         | 47.04        | 1.511        | 38.38        | .311         | 7.90         | 1.635        | 41.53        | .432         | 10.97        |
| 4             | 2.729        | 69.32        | .494         | 12.55        | 2.500         | 63.50        | 2.159        | 54.84        | .311         | 7.90         | 2.282        | 57.96        | .432         | 10.97        |
| 5             | 2.635        | 66.93        | .605         | 15.37        | 2.406         | 61.11        | 2.054        | 52.17        | .423         | 10.74        | 2.188        | 55.58        | .544         | 13.82        |

### NOTES

1. See [About Series 28 HiPer-D® Shell Plating Options](#) for additional shell material and finish options. Glenair offers the industry's widest selection of plating options with no minimum order quantities or setup charges.
2. For panel cutouts, refer to [Panel Cutouts and Printed Circuit Board Footprints](#).
3. Connectors are supplied with size #20 crimp contacts per M39029. Contacts are not installed. Refer to [HiPer-D® Contacts and Tools](#) section for contact part numbers, specifications, crimp tool information, and insertion/extraction tools.
4. **Size 8 contacts are ordered separately.** Refer to [HiPer-D® Contacts and Tools](#) section for contact ordering information, specifications, crimp tool information, and insertion/extraction tools.
5. Combo HiPer-D® connectors meet the applicable requirements of MIL-DTL-24308 and are interchangeable with standard non-environmental D Subminiature connectors with corresponding contact arrangements and type. **Size 8 contacts from other manufacturers cannot be installed in HiPer-D® connectors.**
6. Additional electrical, mechanical and environmental specifications are listed in [HiPer-D® Product Specification](#).