

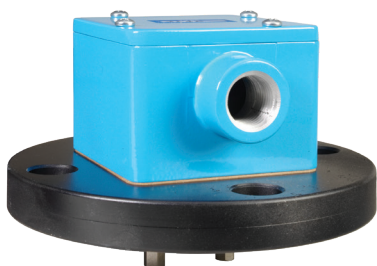
## Designed for OEM

- ▶ Compact
- ▶ One-Piece Probe/Body Construction
- ▶ Quick Install & Connect
- ▶ Order Sized to Your Spec

These Warrick fitting are designed for OEM use. They are shipped ready for quick installation. Integrated probes eliminate pre-assembly tasks, and avoid potential vibration-induced loosening when installed with power tools. Choose from single- or multi-electrode probe series. Gems supplies these series with probes pre-cut to lengths you specify.

| Series                                                                           | 3J                                                                                                                                                                                                                                                                                                                                                                                                    | 3H                                                                                                                                                                                                                                                                           | 3L                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                  |                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                |
| Probe Quantity                                                                   | 1, 2 or 3                                                                                                                                                                                                                                                                                                                                                                                             | 1                                                                                                                                                                                                                                                                            | 1                                                                                                                                                                                                                                                                                                                                                                                  |
| Mounting Size                                                                    | 1" NPT                                                                                                                                                                                                                                                                                                                                                                                                | 3/8" NPT or 5/8" NF/NFE                                                                                                                                                                                                                                                      | 1/8" NPT                                                                                                                                                                                                                                                                                                                                                                           |
| Materials                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                    |
| Body                                                                             | Case iron or red brass                                                                                                                                                                                                                                                                                                                                                                                | 316 stainless steel                                                                                                                                                                                                                                                          | 316 stainless steel                                                                                                                                                                                                                                                                                                                                                                |
| Terminal Housing                                                                 | Diecast aluminum, epoxy coated (optional)                                                                                                                                                                                                                                                                                                                                                             | —                                                                                                                                                                                                                                                                            | —                                                                                                                                                                                                                                                                                                                                                                                  |
| Probe                                                                            | 316 stainless steel                                                                                                                                                                                                                                                                                                                                                                                   | 316 stainless steel                                                                                                                                                                                                                                                          | 316 stainless steel                                                                                                                                                                                                                                                                                                                                                                |
| Insulation                                                                       | Teflon®                                                                                                                                                                                                                                                                                                                                                                                               | Teflon®                                                                                                                                                                                                                                                                      | Teflon®                                                                                                                                                                                                                                                                                                                                                                            |
| Probe Diameter                                                                   | 3/16"                                                                                                                                                                                                                                                                                                                                                                                                 | 1/4"                                                                                                                                                                                                                                                                         | 3/16"                                                                                                                                                                                                                                                                                                                                                                              |
| Pressure/Temperature                                                             | 0 psig @ 500°F                                                                                                                                                                                                                                                                                                                                                                                        | 250 psig @ 406°F                                                                                                                                                                                                                                                             | 150 psig @ 365°F                                                                                                                                                                                                                                                                                                                                                                   |
| Approvals                                                                        | —                                                                                                                                                                                                                                                                                                                                                                                                     | U.L. File #MP2489, Vol. 1 Sec. 1; CSA                                                                                                                                                                                                                                        | U.L. File #MP2489                                                                                                                                                                                                                                                                                                                                                                  |
| Use the <b>Bold</b> characters from the chart below to construct a product code. | <p>Series <b>3J</b></p> <p>Number of Probes <b>1</b> – One <b>2</b> – Two <b>3</b> – Three</p> <p>Body Material<sup>1</sup><br/><b>B</b> – Cast Iron <b>C</b> – Red Brass</p> <p>Housing <b>0</b> – None <b>1</b> – Optional Housing</p> <p>Length of Probes<sup>2</sup><br/><b>A</b> – All probes 10-1/4"<br/><b>C</b> – For lengths less than 10-1/4" indicate length as inches in decimal form</p> | <p>Series <b>3H</b></p> <p>Thread<br/><b>1</b> – 3/8" – 18 NPT<br/><b>2</b> – 5/8" – 18 UNF<br/><b>3</b> – 5/8" – 24 UNEF</p> <p>Sleeve<sup>1</sup><br/><b>B</b> – Teflon® 3/4" Long</p> <p>Length (Feet)<sup>2</sup><br/><b>1</b> – One <b>2</b> – Two <b>3</b> – Three</p> | <p>Series <b>3L</b></p> <p>Connection Size<br/><b>1</b> – 1/8" NPT</p> <p>Insulator Length<br/><b>D</b> – Teflon® 1-1/4"</p> <p>Length in Inches<sup>1, 2</sup><br/><b>02</b> – Two <b>06</b> – Six <b>10</b> – Ten<br/><b>03</b> – Three <b>07</b> – Seven <b>11</b> – Eleven<br/><b>04</b> – Four <b>08</b> – Eight <b>12</b> – Twelve<br/><b>05</b> – Five <b>09</b> – Nine</p> |
| Notes                                                                            | <p>1. Probes are stainless steel.</p> <p>2. 10-1/4" maximum</p>                                                                                                                                                                                                                                                                                                                                       | <p>1. Longer Teflon® sleeves are available. Contact factory or your representative</p> <p>2. Custom probe and insulation lengths are available. Contact your representative.</p>                                                                                             | <p>1. 12" maximum</p> <p>2. Indicate fractional inches in decimal form (01.75 = 1-3/4")</p>                                                                                                                                                                                                                                                                                        |

## Top Mounting Fixtures – General Purpose

| Series                                         | 3F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                      |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------------|--------------------------|--------------------------------------|---|---|--------|----------|-----------------------|-----|---|----|----------|-----------------------|---|-------|----|----------|-----------------------|-----|---|--------|----------|---------------|--|
|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                      |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| Mounting Connection                            | Flange — 4.5" to 7.5" Dia.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | NPT, Flange, Bracket (Plate)                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          |                                      |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| Probe Quantity                                 | 1 thru 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1 thru 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                      |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| Description                                    | Designed for general purpose service, Series 3F flanged, pressure-tight fittings can handle up to 7 probes. They mate with standard pipe flanges coupled to the top of the vessel. Available in a variety of materials.                                                                                                                                                                                                                                                                                                                                      | Series 3G fittings are designed for general purpose use, and are made of PVC to withstand corrosive conditions. The flanged assemblies are sized to accommodate up to 7 probes and to mate with standard flanges on the tops of vessels.                                                                                                                                                                                                                                                          |                          |                                      |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| Materials                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                      |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| Terminal Housing                               | Die-cast aluminum, epoxy coated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Polycarbonate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                      |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| Body                                           | Forged steel, red brass, 316 S.S., 1018 C.S, PVC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | PVC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                      |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| Probe Insulation                               | Teflon®                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Teflon®                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                      |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| Pressure/Temperature                           | 125 psig @ 323°F (cast iron)<br>225 psig @ 150°F (brass)<br>230 psig @ 100°F (316 S.S.)<br>275 psig @ 100°F (1018 C.S.)<br>PVC – not rated                                                                                                                                                                                                                                                                                                                                                                                                                   | 0 psig @ 150°F (PVC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                      |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| Approvals                                      | CSA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                      |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| Dimensions                                     | <table><tr><th>No. of Probes</th><th>Nominal Pipe Flange Size</th><th>Diameter of Flange</th><th>Conduit Boss Thread Size</th><th>Terminal Housing Size (W" x D" x H")</th></tr><tr><td>1</td><td>1</td><td>4-1/2"</td><td>1/2" NPT</td><td>2-1/4 x 2-1/4 x 2-1/4</td></tr><tr><td>2-3</td><td>2</td><td>6"</td><td>1/2" NPT</td><td>3-1/4 x 3-1/4 x 2-3/8</td></tr><tr><td>4</td><td>2-1/2</td><td>7"</td><td>1/2" NPT</td><td>3-1/4 x 3-1/4 x 2-3/8</td></tr><tr><td>5-7</td><td>3</td><td>7-1/2"</td><td>3/4" NPT</td><td>4 x 4 x 2-1/2</td></tr></table> | No. of Probes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nominal Pipe Flange Size | Diameter of Flange                   | Conduit Boss Thread Size | Terminal Housing Size (W" x D" x H") | 1 | 1 | 4-1/2" | 1/2" NPT | 2-1/4 x 2-1/4 x 2-1/4 | 2-3 | 2 | 6" | 1/2" NPT | 3-1/4 x 3-1/4 x 2-3/8 | 4 | 2-1/2 | 7" | 1/2" NPT | 3-1/4 x 3-1/4 x 2-3/8 | 5-7 | 3 | 7-1/2" | 3/4" NPT | 4 x 4 x 2-1/2 |  |
| No. of Probes                                  | Nominal Pipe Flange Size                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Diameter of Flange                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Conduit Boss Thread Size | Terminal Housing Size (W" x D" x H") |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| 1                                              | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4-1/2"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1/2" NPT                 | 2-1/4 x 2-1/4 x 2-1/4                |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| 2-3                                            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1/2" NPT                 | 3-1/4 x 3-1/4 x 2-3/8                |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| 4                                              | 2-1/2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1/2" NPT                 | 3-1/4 x 3-1/4 x 2-3/8                |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| 5-7                                            | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7-1/2"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3/4" NPT                 | 4 x 4 x 2-1/2                        |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| How to Order                                   | <p>Use the <b>Bold</b> characters from the chart at right to construct a product code.</p> <p>Electrode Probes are ordered separately.</p> <p>Series <b>3F</b> <b>X</b> <b>X</b></p> <p>Number of Probes <b>1 thru 7</b></p> <p>Body Material <b>A</b> – Forged Steel (Raised Face)<br/><b>B</b> – Red Brass (Flat Face)<br/><b>C</b> – 316 S.S. (Raised Face)<br/><b>D</b> – 1018 C.S. (Raised Face)<br/><b>E</b> – PVC (Flat Face)</p>                                                                                                                     | <p>Series <b>3G</b> <b>X</b> <b>X</b> <b>X</b></p> <p>Number of Probes <b>1 thru 7</b></p> <p>Base Size and Style <b>A</b> – 2" Flange (6" O.D.)<sup>3</sup> <b>E</b> – 2" NPT<sup>3</sup><br/><b>B</b> – 3" Flange (7-1/2" O.D.) <b>H</b> – 3" NPT<br/><b>C</b> – 3-1/4" x 6" x 3/4" PVC Plate</p> <p>Probe Type <b>1</b> – 316 S.S. Inserts for Use with 1/4" Rod Extensions<sup>4</sup><br/><b>2</b> – Tapered Probe Assembly<sup>5</sup><br/><b>3</b> – Wire-Suspended Probes<sup>6</sup></p> |                          |                                      |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |
| Compatible Electrode Probes (order separately) | 3R, 3W <sup>1</sup> , 3Y <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 3R, 3T, 3W <sup>1</sup> , 3Y <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                      |                          |                                      |   |   |        |          |                       |     |   |    |          |                       |   |       |    |          |                       |     |   |        |          |               |  |

**Notes:**

- Requires 3Z1B Adapter and 3Z1A Wire.
- Requires 3Z1B Adapter.
- Maximum 4 probes.

- Order 3R rods separately. See page E-21.
- Order 3T rods separately. See page E-21.
- Order 3W/3Y probes separately. See page E-22.

Custom options available. Consult factory.

| <b>3E</b>                                                                                                                                                                                                                                 |               | <b>3N</b>                                                                                                                                                                                                                      |                          | <b>3B</b>                                                                                                                                                                                                                                                                                                          |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                                                                                                                                          |               |                                                                                                                                               |                          |                                                                                                                                                                                                                                 |  |
| 1" to 3" NPT                                                                                                                                                                                                                              |               | #10 Machine Screws from Underside                                                                                                                                                                                              |                          | 3/8" - 18NPT, 5/8" - 18UNF, 5/8" - 24UNEF                                                                                                                                                                                                                                                                          |  |
| 1 thru 7                                                                                                                                                                                                                                  |               | 1 thru 3                                                                                                                                                                                                                       |                          | 1                                                                                                                                                                                                                                                                                                                  |  |
| Series 3E fittings are cast metal, pressure-tight assemblies capable of handling 1-7 probes. Attachment to vessels is accomplished with external pipe threading. 3E Fittings require the use of 3R rigid or 3W wire suspended electrodes. |               | Series 3N fittings accommodate 1-3 probes operating at atmospheric pressure. The assembly mounts on a flat surface atop open tanks or closed vessels. 3N Fittings require the use of 3R rigid or 3W wire suspended electrodes. |                          | Series 3B fittings are compact pressure tight assemblies that hold a single electrode probe for use in water and chemicals. These fittings incorporate a 1/4-20 female thread that must be combined with a Series 3R (rigid rod electrode) or Series 3W/3Y (wire suspended electrode) to make a complete assembly. |  |
| Die-cast aluminum, epoxy coated                                                                                                                                                                                                           |               | Die-cast aluminum, epoxy coated                                                                                                                                                                                                |                          | —                                                                                                                                                                                                                                                                                                                  |  |
| Cast iron, red brass, 316 stainless steel                                                                                                                                                                                                 |               | PVC, red brass, 316 stainless steel                                                                                                                                                                                            |                          | 316 stainless steel                                                                                                                                                                                                                                                                                                |  |
| Teflon®                                                                                                                                                                                                                                   |               | Teflon®                                                                                                                                                                                                                        |                          | Teflon®                                                                                                                                                                                                                                                                                                            |  |
| 125 psig @ 353°F (cast iron)<br>250 psig @ 406°F (brass, 316 S.S.)                                                                                                                                                                        |               | 0 psig @ 150°F (PVC)<br>0 psig @ 500°F (brass, 316 S.S.)                                                                                                                                                                       |                          | 250 psig @ 406°F<br>500 psig @ 75°F                                                                                                                                                                                                                                                                                |  |
| U.L. File #MP2489, Vol. 1 Sec. 1; CSA                                                                                                                                                                                                     |               | CSA File #LR11644                                                                                                                                                                                                              |                          | U.L. File #MP2489, Vol. 1 Sec. 1; CSA                                                                                                                                                                                                                                                                              |  |
|                                                                                                                                                                                                                                           | No. of Probes | Attachment to Vessel                                                                                                                                                                                                           | Conduit Boss Thread Size | Terminal Housing Size (W" x D" x H")                                                                                                                                                                                                                                                                               |  |
| <b>3E</b>                                                                                                                                                                                                                                 | 1             | 1" NPT                                                                                                                                                                                                                         | 1/2" NPT                 | 2-1/4 x 2-1/4 x 2-1/4                                                                                                                                                                                                                                                                                              |  |
|                                                                                                                                                                                                                                           | 2-3           | 2" NPT                                                                                                                                                                                                                         | 1/2" NPT                 | 3-1/4 x 3-1/4 x 2-3/8                                                                                                                                                                                                                                                                                              |  |
|                                                                                                                                                                                                                                           | 4             | 2-1/2" NPT                                                                                                                                                                                                                     | 1/2" NPT                 | 3-1/4 x 3-1/4 x 2-3/8                                                                                                                                                                                                                                                                                              |  |
|                                                                                                                                                                                                                                           | 5-7           | 3" NPT                                                                                                                                                                                                                         | 3/4" NPT                 | 4 x 4 x 2-1/2                                                                                                                                                                                                                                                                                                      |  |
| <b>3N</b>                                                                                                                                                                                                                                 | 1-3           | 2-1/4" square flat pad, 1-1/2" dia. hole in top of vessel secured with #10 machine screws at the corners of a 1-1/2" square                                                                                                    | 1/2" NPT                 | 2-1/4 x 2-1/4 x 2-1/4                                                                                                                                                                                                                                                                                              |  |
| Series <b>3E</b><br>Number of Probes <b>1 thru 7</b><br>Body Material<br><b>A</b> – Cast Iron<br><b>B</b> – Red Brass<br><b>C</b> – 316 Stainless Steel                                                                                   |               | Series <b>3N</b><br>Number of Probes <b>1 thru 3</b><br>Body Material<br><b>A</b> – PVC<br><b>B</b> – Red Brass<br><b>C</b> – 316 Stainless Steel                                                                              |                          | Series <b>3B</b><br>Thread<br><b>1</b> – 3/8" - 18 NPT<br><b>2</b> – 5/8" - 18 UNF<br><b>3</b> – 5/8" - 24 UNEF<br>Metal Parts<br><b>B</b> – 316 Stainless Steel                                                                                                                                                   |  |
| 3R, 3W <sup>1</sup>                                                                                                                                                                                                                       |               | 3R, 3W <sup>1</sup>                                                                                                                                                                                                            |                          | 3R solid rod (up to 4')<br>3W <sup>1</sup> or 3Y <sup>2</sup> (greater than 4')                                                                                                                                                                                                                                    |  |

Custom options available. Consult factory.