

## Data Sheet

### 80 Wafer Isolation Ring

#### FEATURES

- 360° Instrument rotation with SQR™ option
- Selection of 2" through 20" nominal pipe size
- Non-clogging/low maintenance
- Complete instrument protection
- Ensure reliable/accurate pressure readings
- Optional retrofit end plates to replace competitive units

#### TYPICAL USES

- Water and wastewater
- Mining

#### SPECIFICATIONS

|                             |                                                                                                                                                                                                   |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sizes:                      | 2" to 20"                                                                                                                                                                                         |
| Instrument Connection Size: | ¼, ½ NPT                                                                                                                                                                                          |
| Pressure Rating (MAWP):     | Per customer flanges:<br>ASME B16.5 150 or 300 class                                                                                                                                              |
| Fill:                       | Glycerin: 0°F to 400°F (-18°C to 204°C)<br>Silicone (10Cst): -40°F to 500°F (-40°C to 260°C)<br>Silicone (50Cst): -40°F to 600°F (-40°C to 316°C)<br>Halocarbon®: -70°F to 300°F (-57°C to 149°C) |
| Instrument Options:         | Direct-mount, Needle valve, Safe Quick Release (SQR™), Needle valve and SQR™ (02T conn.)                                                                                                          |
| Added Tolerance:            | ±0.5% typical                                                                                                                                                                                     |
| Approvals:                  | CRN                                                                                                                                                                                               |

#### WETTED COMPONENTS

|                                           |                                              |
|-------------------------------------------|----------------------------------------------|
| End Plate Material                        | Flexible Liner                               |
| Carbon steel, 316L SS, PVDF, Acetal, CPVC | Buna, PTFE, EPDM, Natural rubber, and Viton® |

#### NON-WETTED COMPONENTS

|                                   |                                                                             |
|-----------------------------------|-----------------------------------------------------------------------------|
| Body                              | Instrument Fittings                                                         |
| Carbon Steel, 316 Stainless steel | Adapters: 316L SS<br>Needle Valve: 316L SS<br>SQR: Zinc-plated carbon steel |

#### MIN/MAX TEMPERATURE LIMITS

| Liner          | Temperature Limits              |
|----------------|---------------------------------|
| Buna-N         | -30°F to 225°F (-34°C to 107°C) |
| Teflon         | -15°F to 350°F (-25°C to 177°C) |
| Viton          | -15°F to 350°F (-25°C to 177°C) |
| Natural Rubber | -30°F to 225°F (-34°C to 107°C) |
| EPDM           | -40°F to 300°F (-40°C to 149°C) |



#### 80 Wafer Isolation Ring

Nominal Size: 2" to 20"

#### KEY BENEFITS

- Reliable when continuous pressure measurements are needed
- Non-clogging and low maintenance
- Complete instrument protection

# Data Sheet

## 80 Wafer Isolation Ring

| ORDERING CODE                                                                                               | Example: | 80 | 02 | E | B | B | 02T | N | 000 | XCK | H3 | NH |
|-------------------------------------------------------------------------------------------------------------|----------|----|----|---|---|---|-----|---|-----|-----|----|----|
| <b>Seal Type</b>                                                                                            |          |    |    |   |   |   |     |   |     |     |    |    |
| 80 - Wafer style isolation ring                                                                             |          | 80 |    |   |   |   |     |   |     |     |    |    |
| <b>Process Connection Size</b>                                                                              |          |    |    |   |   |   |     |   |     |     |    |    |
| 02 - 2" (see table 2 on page 3)                                                                             |          |    | 02 |   |   |   |     |   |     |     |    |    |
| <b>Inner Flexible Wall</b>                                                                                  |          |    |    |   |   |   |     |   |     |     |    |    |
| E - Buna-N                                                                                                  |          |    |    | E |   |   |     |   |     |     |    |    |
| T - PTFE (available in 2" to 10")                                                                           |          |    |    |   |   |   |     |   |     |     |    |    |
| Y - Viton®                                                                                                  |          |    |    |   |   |   |     |   |     |     |    |    |
| R - Natural rubber                                                                                          |          |    |    |   |   |   |     |   |     |     |    |    |
| P - EPDM                                                                                                    |          |    |    |   |   |   |     |   |     |     |    |    |
| <b>End Plate Material</b>                                                                                   |          |    |    |   |   |   |     |   |     |     |    |    |
| A - Acetal                                                                                                  |          |    |    |   |   |   |     |   |     |     |    |    |
| K - CPVC                                                                                                    |          |    |    |   |   |   |     |   |     |     |    |    |
| B - Carbon steel                                                                                            |          |    |    |   | B |   |     |   |     |     |    |    |
| S - 316L Stainless steel                                                                                    |          |    |    |   |   |   |     |   |     |     |    |    |
| F - PVDF                                                                                                    |          |    |    |   |   |   |     |   |     |     |    |    |
| <b>Body Material</b>                                                                                        |          |    |    |   |   |   |     |   |     |     |    |    |
| B - Carbon steel                                                                                            |          |    |    |   | B |   |     |   |     |     |    |    |
| S - 316L Stainless steel                                                                                    |          |    |    |   |   |   |     |   |     |     |    |    |
| <b>Instrument Connection Size</b>                                                                           |          |    |    |   |   |   |     |   |     |     |    |    |
| 02T - ¼ NPT Female                                                                                          |          |    |    |   |   |   | 02T |   |     |     |    |    |
| 04T - ½ NPT Female (ring body tapped with ¼ NPT connection; 04T connection utilizes ¼-½ NPT adapter)        |          |    |    |   |   |   |     |   |     |     |    |    |
| <b>Instrument Removal Option</b>                                                                            |          |    |    |   |   |   |     |   |     |     |    |    |
| N - Direct-mount                                                                                            |          |    |    |   |   |   |     | N |     |     |    |    |
| V - Needle valve                                                                                            |          |    |    |   |   |   |     |   |     |     |    |    |
| Q - Safe Quick Release (SQR™)                                                                               |          |    |    |   |   |   |     |   |     |     |    |    |
| Z - Needle valve and SQR (Requires 02T instrument connection)                                               |          |    |    |   |   |   |     |   |     |     |    |    |
| <b>Pressure Class</b>                                                                                       |          |    |    |   |   |   |     |   |     |     |    |    |
| 000 - Wafer design                                                                                          |          |    |    |   |   |   |     |   | 000 |     |    |    |
| <b>Options</b> (if choosing option(s) must include an "X")                                                  |          |    |    |   |   |   |     |   |     | X__ |    |    |
| Fill Fluid (see table 3 on page 3 for more available fill fluids)                                           |          |    |    |   |   |   |     |   |     |     |    |    |
| CG - Glycerin                                                                                               |          |    |    |   |   |   |     |   |     |     |    |    |
| CK - Silicone 50cSt                                                                                         |          |    |    |   |   |   |     |   |     | CK  |    |    |
| CF - Halocarbon®                                                                                            |          |    |    |   |   |   |     |   |     |     |    |    |
| CT - 50/50 Ethylene Glycol/water                                                                            |          |    |    |   |   |   |     |   |     |     |    |    |
| <b>Multiple Instrument Assemblies</b> (contact factory for additional arrangements or custom orientations.) |          |    |    |   |   |   |     |   |     |     |    |    |
| H3 - ¼ NPT gauge/ ¼ NPT transducer/ 02T isolation ring                                                      |          |    |    |   |   |   |     |   |     |     | H3 |    |
| H5 - ½ NPT gauge/ ½ NPT switch/ 04T isolation ring                                                          |          |    |    |   |   |   |     |   |     |     |    |    |
| H6 - ½ NPT gauge/2 ½ NPT switches/ 02T isolation ring                                                       |          |    |    |   |   |   |     |   |     |     |    |    |
| H7 - ¼ NPT gauge/ ¼ NPT switch/ 02T isolation ring                                                          |          |    |    |   |   |   |     |   |     |     |    |    |
| <b>Optional Features</b>                                                                                    |          |    |    |   |   |   |     |   |     |     |    |    |
| IR - Retrofit end plates (custom end plate widths for drop-in replacements)                                 |          |    |    |   |   |   |     |   |     |     |    |    |
| NH - Stainless steel tag wired to ring                                                                      |          |    |    |   |   |   |     |   |     |     | NH |    |
| Q8 - Elbow for vertical pipe installation (02T connection only)                                             |          |    |    |   |   |   |     |   |     |     |    |    |

Consult factory for multiple instrument assemblies, welded assembly options, additional process connection sizes and fill fluids. When selecting an instrument, refer to the [Min/Max Guide](#) for compatibility with this isolation ring or scan the QR code to the right.



## Data Sheet

### 80 Wafer Isolation Ring

**TABLE 2 – PROCESS CONNECTION TABLE**

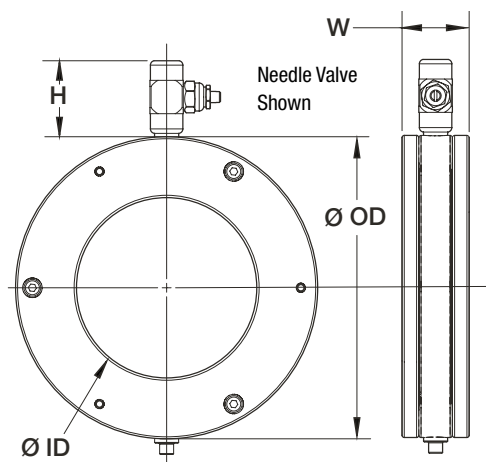
| Process Connection Code<br>(Nominal Size) | Type 80<br>(Ordering Code) |
|-------------------------------------------|----------------------------|
| 2"                                        | 02                         |
| 3"                                        | 03                         |
| 4"                                        | 04                         |
| 5"                                        | 05                         |
| 6"                                        | 06                         |
| 8"                                        | 08                         |
| 10"                                       | 10                         |
| 12"                                       | 12                         |
| 14"                                       | 14                         |
| 16"                                       | 16                         |
| 18"                                       | 18                         |
| 20"                                       | 20                         |

Consult factory for larger sizes

**TABLE 3 – FILL FLUID TABLE**

| Fill Fluid                  | Temperature Range               | Code |
|-----------------------------|---------------------------------|------|
| Glycerin                    | 0°F to 400°F (-18°C to 204°C)   | CG   |
| Silicone 10cSt              | -40°F to 500°F (-40°C to 260°C) | DJ   |
| Silicone 50cSt              | -40°F to 500°F (-40°C to 260°C) | CK   |
| Halocarbon®                 | -80°F to 390°F (60°C to 200°C)  | CF   |
| 50/50 Ethylene Glycol/Water | -25°F to 190°F (-32°C to 88°C)  | CT   |

#### DIMENSIONS



| Nominal<br>Pipe Size<br>Inches | Inner<br>Diameter<br>(ID) | Outer<br>Diameter<br>(OD) | Width (W)<br>(Metalic<br>Endplates<br>Only) | Width (W)<br>*See Note | H      |                       |              | Weight Lbs.<br>(Std. CSS/SS<br>end plates) |
|--------------------------------|---------------------------|---------------------------|---------------------------------------------|------------------------|--------|-----------------------|--------------|--------------------------------------------|
|                                |                           |                           |                                             |                        | Direct | Safe Quick<br>Release | Needle Valve |                                            |
| 2                              | 2.07                      | 4.00                      | 2.00                                        | 2.13                   | 1.89   | 2.04                  | 1.70         | 4.00                                       |
| 3                              | 3.07                      | 5.25                      | 2.00                                        | 2.13                   | 1.89   | 2.04                  | 1.70         | 6.30                                       |
| 4                              | 4.03                      | 6.75                      | 1.50                                        | 2.13                   | 1.89   | 2.04                  | 1.70         | 8.00                                       |
| 5                              | 5.05                      | 7.63                      | 1.50                                        | 2.25                   | 1.89   | 2.04                  | 1.70         | 9.50                                       |
| 6                              | 6.07                      | 8.63                      | 1.50                                        | 2.25                   | 1.89   | 2.67                  | 2.32         | 10.20                                      |
| 8                              | 7.98                      | 10.88                     | 1.50                                        | 2.50                   | 2.39   | 2.67                  | 2.32         | 14.90                                      |
| 10                             | 10.02                     | 13.25                     | 1.50                                        | 2.75                   | 2.39   | 2.67                  | 2.32         | 21.30                                      |
| 12                             | 12.00                     | 16.00                     | 1.75                                        | 3.00                   | 2.39   | 2.67                  | 2.32         | 39.10                                      |
| 14                             | 13.25                     | 17.63                     | 1.75                                        | 3.00                   | 2.89   | 3.17                  | 2.82         | 47.80                                      |
| 16                             | 15.25                     | 20.13                     | 1.75                                        | 3.00                   | 2.89   | 3.17                  | 2.82         | 58.00                                      |
| 18                             | 17.25                     | 21.50                     | 1.75                                        | 3.00                   | 2.89   | 3.67                  | 3.32         | 61.80                                      |
| 20                             | 19.25                     | 23.75                     | 1.75                                        | 3.00                   | 2.89   | 3.67                  | 3.32         | 68.80                                      |

\* Widths for all rings ordered with XIR retrofit option, and all K, F, and A endplate materials.