

## ALL-WELDED PROCESS SEAL GAUGE

Reotemp's All-Welded Pressure Seal Gauge offers superior diaphragm seal safety and performance at an economical price. Combined with a gauge or transmitter, the tamper-resistant all-welded diaphragm seal reduces potential leak points, making it ideal for installations where process integrity and worker safety are paramount. Combined with PulsePlus™ protection, the Series MS8 can potentially triple the life of your gauge or transmitter.



MS8P2

MS8P4

MS8PT



Fillable



Dials



Custom Logo

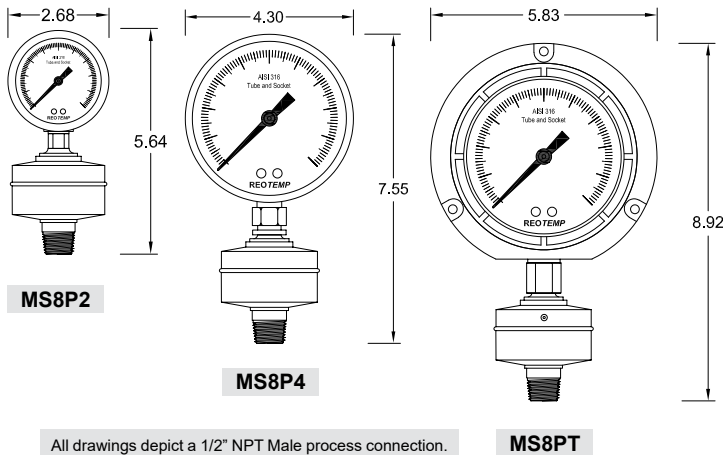
### FEATURES / BENEFITS

- Increases the Life of the Gauge by Up to 3x
- Reduce/Eliminate Fugitive Emissions
- Available Up to 5,000 psi
- Eliminate Potential Leak Points
- Tamper Resistant
- Compliant to NACE MR0175, MR0103



### SPECIFICATIONS

|                                           |                                                                                                                                                      |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Accuracy</b>                           | With appropriate pressure range, seal gauge accuracy is gauge accuracy plus 0.5%. (May be subject to thermal error. Consult factory with questions.) |
| <b>Ambient Limits</b>                     | -40°F/150°F                                                                                                                                          |
| <b>Process Limits with Diaphragm Seal</b> | -40°F/400°F (Direct Mount)*<br>-110°F/750°F (Remote Mount or Cooling Tower)*<br>*Exact limits depend on diaphragm seal and fill fluids.              |
| <b>Wetted Materials</b>                   | Diaphragm, Lower and Process Connection: 316LSS or Hast. C-276<br>Gasket: None                                                                       |
| <b>Lens</b>                               | Tempered Safety Glass, Plastic or Laminated Safety Glass                                                                                             |
| <b>Other Materials</b>                    | Upper Housing: 316SS                                                                                                                                 |
| <b>Fillable</b>                           | Yes                                                                                                                                                  |
| <b>Maximum Working Pressure</b>           | See table left.                                                                                                                                      |
| <b>Environmental Protection</b>           | NEMA 4X/IP65                                                                                                                                         |
| <b>Weight</b>                             | 0.6 lbs (Seal Only)                                                                                                                                  |



All drawings depict a 1/2" NPT Male process connection. See online configurator for specific assembly drawings.

#### DIAPHRAGM SEAL MAX WORKING PRESSURE (AT 100°F)

|         |                              | 316SS     | Hast. C-276 | Monel     |
|---------|------------------------------|-----------|-------------|-----------|
| Male    | 1/4" NPT                     | 5,000 psi | 2,000 psi   | 2,000 psi |
|         | 1/2" NPT                     | 5,000 psi | 2,000 psi   | 2,000 psi |
|         | 3/4" NPT                     | 2,000 psi | n/a         | n/a       |
|         | 1" NPT                       | 2,000 psi | n/a         | n/a       |
| Female  | 1/4" NPT                     | 2,500 psi | n/a         | n/a       |
|         | 1/2" NPT                     | 2,500 psi | n/a         | n/a       |
| Flanged | Based on ANSI flange rating. |           |             |           |

Note: Maximum working pressure is lesser of proof pressure and 130% of gauge range.

## ALL-WELDED PROCESS SEAL GAUGE

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HOW TO ORDER: Choose options to build a part number. For example: MS8PTAM3XP23-SDDDASPGT-HV

| MS8PT                                                                                                                                                                                                                                                                                                                                                                                              | A                                                                                                                                                                                                         | M3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | X                                                                               | P23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -S                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PRESSURE INSTRUMENT                                                                                                                                                                                                                                                                                                                                                                                | GAUGE MOUNT                                                                                                                                                                                               | PROCESS CONNECTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FLUSH CONNECTION                                                                | PRESSURE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | WETTED MATERIAL                                                                                                                                                                                                                                                                                                                                                                              |
| <i>Solid Front/ Blowout Back Process Gauges</i><br><b>MS8PT</b> = 4.5" Thermoplastic Safety Gauge<br><b>MS8PS</b> = 4.5" Stainless Safety Gauge<br><br><i>Industrial All Stainless Steel Gauges</i><br><b>MS8P6</b> = 6" SS<br><b>MS8P4</b> = 4" SS<br><b>MS8P3</b> = 3.5" SS<br><b>MS8P2</b> = 2.5" SS<br><br><i>Hinged-Ring Process Gauge</i><br><b>MS8PI</b> = 4.5" Aluminum Case, SS internals | <b>A</b> = Bottom<br><b>C</b> = Back (4", 4.5", 6")<br>Lower Back (2.5", 3.5")<br>Center Back<br><br><b>E</b> = Back/ Front Flange (Panel Mount) (4", 4.5", 6")<br>Lower Back (2.5", 3.5")<br>Center Back | <i>Threaded</i><br><b>M2</b> = 1/2" male NPT<br><b>M4</b> = 1/4" male NPT<br><b>M3</b> = 3/4" male NPT<br><b>M1</b> = 1" male NPT<br><b>F2</b> = 1/2" female NPT<br><b>F4</b> = 1/4" female NPT<br><b>F3</b> = 3/4" female NPT<br><br><i>Flanged</i><br><b>R01</b> = 1/2"x150# ANSI RF<br><b>R03</b> = 1/2"x300/600# ANSI RF<br><b>RT1</b> = 3/4"x150# ANSI RF<br><b>RT3</b> = 3/4"x300/600# ANSI RF<br><b>R11</b> = 1"x150# ANSI RF<br><b>R13</b> = 1"x300# ANSI RF<br><b>RH1</b> = 1.5"x150# ANSI RF<br><b>RH3</b> = 1.5"x300# ANSI RF | <b>X</b> = No Flush<br><b>F</b> = Single 1/4" Flush (Ships with Plug Installed) | <i>Common Ranges</i><br><b>P03</b> = -30" inHg/0/30 psi<br><b>P15</b> = 15 psi<br><b>P16</b> = 30 psi<br><b>P17</b> = 60 psi<br><b>P18</b> = 100 psi<br><b>P20</b> = 200 psi<br><b>P21</b> = 300 psi<br><b>P22</b> = 400 psi<br><b>P23</b> = 600 psi<br><b>P25</b> = 1,000 psi<br><b>P31</b> = 2,000 psi<br><b>P32</b> = 3,000 psi<br><b>P34</b> = 5,000 psi<br><br><i>Available Ranges</i><br>■ 15 psi to 6,000 psi<br>■ Gauge Pressure, Vacuum, or Compound<br><br><i>Standard Units</i><br>■ psi    ■ psi/bar<br><br>Note: Minimum Span for 4" Gauges and Greater is 30 psi<br><br>For Additional Range Codes See Page 87 | <b>-S</b> = 316L SS<br><b>-H</b> = Hast. C-276<br><b>-M</b> = Monel 400 <sup>†</sup><br><b>-Z</b> = Hastelloy C-276 Diaphragm, 316SS Lower Body**<br><b>-F</b> = 304L SS<br><br>Note: see maximum working pressure table on previous page for available process connections.<br><br><sup>†</sup> Furnished with Monel upper housing.<br><br>**Max working pressure is the same as all 316SS. |

| DDD                                                                                                                                                                                                                                                                               | AS                                                                                                                                                                               | P                                                                | G                                                                                                                                                         | T                                                                                           | -HV                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SEAL MOUNTING                                                                                                                                                                                                                                                                     | SEAL FILL                                                                                                                                                                        | PULSATION PROTECTION                                             | CASE FILL                                                                                                                                                 | LENS                                                                                        | OPTIONS                                                                                                                                                                                                                                                                                                                                              |
| <b>DDD</b> = Direct<br><b>RTR</b> = Cooling Tower<br><b>B??</b> = Armored 316 SS Capillary (5-40 ft.)<br><b>W??</b> = PVC Coated Armored 316 SS Capillary<br>Note: ?? = Length in feet (e.g. 05 = 5 feet)<br><br>Note: Capillary connection is welded unless otherwise specified. | <b>AS</b> = Silicone DC200<br><b>AG</b> = Glycerin<br><b>C1</b> = Fomblin Y06<br><b>BH</b> = Silicone DC704<br><b>C2</b> = Halocarbon 6.3<br><br>See 108 for Complete Fill Guide | <b>X</b> = None<br><b>P</b> = Pulse Plus™ (Pulsation Protection) | <b>D</b> = Dry<br><b>G</b> = Glycerin<br><b>W</b> = Glycerin Water (65/35)<br><b>S</b> = Silicone<br><b>I</b> = Inert<br><br>Note: MS8PI is not fillable. | <b>T</b> = Tempered Safety Glass<br><b>S</b> = Laminated Safety Glass<br><b>P</b> = Plastic | <b>-HV</b> = Hi-Vis™ Dial<br><b>-C3</b> = 3 Point Calibration Certificate<br><b>-TS</b> = Stainless Steel Tag<br><b>-OX</b> = Cleaned for O <sub>2</sub> Service<br><b>-CN</b> = NACE Certificate<br><b>-PM</b> = Positive Material Identification Certification<br><b>-MM</b> = Monel Wetted Gauge<br><br>See Pages 93 & 180 for Additional Options |

## PRESSURE GAUGE RANGES AND CODES

### VACUUM/COMPOUND RANGES

| psi       |           | Dual Scale & psi & Metric |                |                          |                               |           |                    | Single Scale-Metric |          |                    |                         |      |              |
|-----------|-----------|---------------------------|----------------|--------------------------|-------------------------------|-----------|--------------------|---------------------|----------|--------------------|-------------------------|------|--------------|
| "Hg/0/psi |           | psi & bar                 |                | psi & kg/cm <sup>2</sup> |                               | psi & kPa |                    | bar                 |          | kg/cm <sup>2</sup> |                         | kPa  |              |
| Code      | Range     | Code                      | Range          | Code                     | Range                         | Code      | Range              | Code                | Range    | Code               | Range                   | Code | Range        |
| P01       | -30"Hg/0  | D01                       | "Hg & -1/0 bar | G01                      | "Hg & -1/0 kg/cm <sup>2</sup> | L01       | "Hg & -100/0 kPa   | B00                 | -1/0 bar | K00                | -1/0 kg/cm <sup>2</sup> | A00  | -100/0 kPa   |
| P02       | -30/0/15  | D02                       | psi & -1/0/1   | G02                      | psi & -1/0/1                  | L02       | psi & -100/0/100   | B01                 | -1/0/1   | K01                | -1/0/1                  | A01  | -100/0/100   |
| P03       | -30/0/30  | D03                       | psi & -1/0/2   | G03                      | psi & -1/0/2                  | L03       | psi & -100/0/200   | B02                 | -1/0/2   | K02                | -1/0/2                  | A02  | -100/0/200   |
| P04       | -30/0/60  | D04                       | psi & -1/0/4   | G04                      | psi & -1/0/4                  | L04       | psi & -100/0/400   | B04                 | -1/0/4   | K04                | -1/0/4                  | A04  | -100/0/400   |
| P05       | -30/0/100 | D05                       | psi & -1/0/7   | G05                      | psi & -1/0/7                  | L05       | psi & -100/0/700   | B07                 | -1/0/7   | K07                | -1/0/7                  | A07  | -100/0/700   |
| P06       | -30/0/160 | D06                       | psi & -1/0/11  | G06                      | psi & -1/0/11                 | L06       | psi & -100/0/1,100 | B011                | -1/0/11  | K011               | -1/0/11                 | A011 | -100/0/1,100 |
| P07       | -30/0/200 | D07                       | psi & -1/0/14  | G07                      | psi & -1/0/14                 | L07       | psi & -100/0/1,400 | B014                | -1/0/14  | K014               | -1/0/14                 | A014 | -100/0/1,400 |
| P08       | -30/0/300 | D08                       | psi & -1/0/20  | G08                      | psi & -1/0/20                 | L08       | psi & -100/0/2,000 | B020                | -1/0/20  | K020               | -1/0/20                 | A020 | -100/0/2,000 |

### PRESSURE RANGES

| psi  |          | Dual Scale & psi & Metric |               |                          |                             |           |                 | Single Scale-Metric |         |                    |                        |      |           |
|------|----------|---------------------------|---------------|--------------------------|-----------------------------|-----------|-----------------|---------------------|---------|--------------------|------------------------|------|-----------|
| psi  |          | psi & bar                 |               | psi & kg/cm <sup>2</sup> |                             | psi & kPa |                 | bar                 |         | kg/cm <sup>2</sup> |                        | kPa  |           |
| Code | Range    | Code                      | Range         | Code                     | Range                       | Code      | Range           | Code                | Range   | Code               | Range                  | Code | Range     |
| P14  | 0-10 psi | D14                       | psi & .7 bar  | G14                      | psi & .7 kg/cm <sup>2</sup> | L14       | psi & 70 kPa    | B1                  | 0-1 bar | K1                 | 0-1 kg/cm <sup>2</sup> | A1   | 0-100 kPa |
| P15  | 0-15     | D15                       | psi & 0-1     | G15                      | psi & 0-1                   | L15       | psi & 0-100     | B2                  | 0-2     | K2                 | 0-2                    | A2   | 0-200     |
| P16  | 0-30     | D16                       | psi & 0-2     | G16                      | psi & 0-2                   | L16       | psi & 0-200     | B4                  | 0-4     | K4                 | 0-4                    | A4   | 0-400     |
| P17  | 0-60     | D17                       | psi & 0-4     | G17                      | psi & 0-4                   | L17       | psi & 0-400     | B7                  | 0-7     | K7                 | 0-7                    | A7   | 0-700     |
| P18  | 0-100    | D18                       | psi & 0-7     | G18                      | psi & 0-7                   | L18       | psi & 0-700     | B11                 | 0-11    | K11                | 0-11                   | A11  | 0-1,100   |
| P19  | 0-160    | D19                       | psi & 0-11    | G19                      | psi & 0-11                  | L19       | psi & 0-1,100   | B14                 | 0-14    | K14                | 0-14                   | A14  | 0-1,400   |
| P20  | 0-200    | D20                       | psi & 0-14    | G20                      | psi & 0-14                  | L20       | psi & 0-1,400   | B20                 | 0-20    | K20                | 0-20                   | A20  | 0-2,000   |
| P21  | 0-300    | D21                       | psi & 0-20    | G21                      | psi & 0-20                  | L21       | psi & 0-2,000   | B28                 | 0-28    | K28                | 0-28                   | A28  | 0-2,800   |
| P22  | 0-400    | D22                       | psi & 0-28    | G22                      | psi & 0-28                  | L22       | psi & 0-2,800   | B40                 | 0-40    | K40                | 0-40                   | A40  | 0-4,000   |
| P23  | 0-600    | D23                       | psi & 0-40    | G23                      | psi & 0-40                  | L23       | psi & 0-4,000   | B55                 | 0-55    | K55                | 0-55                   | A55  | 0-5,500   |
| P24  | 0-800    | D24                       | psi & 0-55    | G24                      | psi & 0-55                  | L24       | psi & 0-5,500   | B70                 | 0-70    | K70                | 0-70                   | A70  | 0-7,000   |
| P25  | 0-1,000  | D25                       | psi & 0-70    | G25                      | psi & 0-70                  | L25       | psi & 0-7,000   | B100                | 0-100   | K100               | 0-100                  | A100 | 0-10,000  |
| P30  | 0-1,500  | D30                       | psi & 0-100   | G30                      | psi & 0-100                 | L30       | psi & 0-10,000  | B140                | 0-140   | K140               | 0-140                  | A140 | 0-14,000  |
| P31  | 0-2,000  | D31                       | psi & 0-140   | G31                      | psi & 0-140                 | L31       | psi & 0-14,000  | B200                | 0-200   | K200               | 0-200                  | A200 | 0-20,000  |
| P32  | 0-3,000  | D32                       | psi & 0-200   | G32                      | psi & 0-200                 | L32       | psi & 0-20,000  | B280                | 0-280   | K280               | 0-280                  | A280 | 0-28,000  |
| P33  | 0-4,000  | D33                       | psi & 0-280   | G33                      | psi & 0-280                 | L33       | psi & 0-28,000  | B350                | 0-350   | K350               | 0-350                  | A350 | 0-35,000  |
| P34  | 0-5,000  | D34                       | psi & 0-350   | G34                      | psi & 0-350                 | L34       | psi & 0-35,000  | B400                | 0-400   | K400               | 0-400                  | A400 | 0-40,000  |
| P35  | 0-6,000  | D35                       | psi & 0-400   | G35                      | psi & 0-400                 | L35       | psi & 0-40,000  | B550                | 0-550   | K550               | 0-550                  | A550 | 0-55,000  |
| P36  | 0-8,000  | D36                       | psi & 0-550   | G36                      | psi & 0-550                 | L36       | psi & 0-55,000  | B700                | 0-700   | K700               | 0-700                  | A700 | 0-70,000  |
| P37  | 0-10,000 | D37                       | psi & 0-700   | G37                      | psi & 0-700                 | L37       | psi & 0-70,000  | B1K                 | 0-1,000 | K1K                | 0-1,000                | A1K  | 0-100,000 |
| P38  | 0-15,000 | D38                       | psi & 0-1,000 | G38                      | psi & 0-1,000               | L38       | psi & 0-100,000 |                     |         |                    |                        |      |           |
| P39  | 0-20,000 | D39                       | psi & 0-1,400 | G39                      | psi & 0-1,400               | L39       | psi & 0-140,000 |                     |         |                    |                        |      |           |
| P40  | 0-30,000 | D40                       | psi & 0-2,000 | G40                      | psi & 0-2,000               | L40       | psi & 0-200,000 |                     |         |                    |                        |      |           |
| P41  | 0-40,000 | D41                       | psi & 0-2,800 | G41                      | psi & 0-2,800               | L41       | psi & 0-280,000 |                     |         |                    |                        |      |           |
| P42  | 0-50,000 | D42                       | psi & 0-3,500 | G42                      | psi & 0-3,500               | L42       | psi & 0-350,000 |                     |         |                    |                        |      |           |



**Don't See The Range You Need?** Reotemp has thousands of specialty dial ranges available and will work with you to create a custom range, just contact Reotemp customer service.

## FILL GUIDE

Diaphragm seals are designed to protect pressure instruments from hot process media and corrosive chemicals while minimizing any negative effect on instrument accuracy and durability. A well-made diaphragm seal can achieve this goal only if it is properly assembled, filled, and tested. Reotemp's highly trained technicians use state-of-the-art equipment so that every diaphragm seal assembly is filled and tested to assure optimal instrument performance:

- ✓ 24-hour Minimum Fluid De-gassing
- ✓ Evacuated Instrument Chamber Up to 10<sup>-8</sup> mbar Absolute
- ✓ Complete Fill Integrity Check
- ✓ Fill-port Leak Test
- ✓ Post-fill Static Test
- ✓ Verification of Instrument Calibration
- ✓ High-temp Pipe Sealant Option for Joints
- ✓ Tamper-proof (Inspection Seal) Lacquer used on All Threaded Joints
- ✓ Sturdy Diaphragm Packaging Protection

| Part Number Code                                                                        | Name                         | Description                                                                                                                                                                                                                 | Temperature Range (Vacuum Service <5psia) |  | Viscosity cst @ ~77°F | Specific Gravity @ ~77°F | Thermal Expansion cc/cc°C |
|-----------------------------------------------------------------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------|-----------------------|--------------------------|---------------------------|
| STANDARD FILL FLUID                                                                     |                              |                                                                                                                                                                                                                             |                                           |                                                                                     |                       |                          |                           |
| AS                                                                                      | Silicone DC200 <sup>1</sup>  | This is the standard fill fluid for most diaphragm seal applications.                                                                                                                                                       | -40°F to 400°F (-40°F to 250°F)           | Yes                                                                                 | 20                    | 0.94                     | .00104                    |
| HIGH TEMP SILICONE                                                                      |                              |                                                                                                                                                                                                                             |                                           |                                                                                     |                       |                          |                           |
| BH                                                                                      | Silicone DC704 <sup>1</sup>  | Standard for Smart Transmitters and capillary systems. Performs well in applications with high temperature and a deep vacuum.                                                                                               | 0°F to 650°F (0°F to 450°F)               | No                                                                                  | 44                    | 1.07                     | .00077                    |
| B1                                                                                      | Silicone DC710 <sup>1</sup>  | Highest temperature rating; ideal for gauge seal assemblies. Too thick for capillary assemblies. Response time can become very slow in cold conditions.                                                                     | 50°F to 750°F (50°F to 400°F)             | Yes                                                                                 | 500                   | 1.11                     | .00043                    |
| C8                                                                                      | Syltherm 800 <sup>2</sup>    | Low viscosity allows it to perform well in both low and high temperatures. Not recommended for vacuum service or at high temperatures when under low static pressure.                                                       | -40°F to 750°F (-40°F to 150°F)           | No                                                                                  | 9.5                   | 0.93                     | .00136                    |
| B5                                                                                      | Silicone DC705 <sup>1</sup>  | Performs very well in high temperatures when under vacuum. The high viscosity and freezing point of this fluid makes it a poor choice for cold or outdoor installations without heat tracing.                               | 50°F to 675°F (50°F to 550°F)             | Yes                                                                                 | 175                   | 1.09                     | .00096                    |
| B2                                                                                      | Silicone DC550 <sup>1</sup>  | Similar high temperature performance as DC705, however it performs better at lower temperatures.                                                                                                                            | -40°F to 575°F (-40°F to 400°F)           | No                                                                                  | 125                   | 1.07                     | .00076                    |
| FOOD GRADE                                                                              |                              |                                                                                                                                                                                                                             |                                           |                                                                                     |                       |                          |                           |
| AG                                                                                      | Glycerin USP                 | This is the standard fill fluid for most gauge seal assemblies for food, beverage, and pharmaceutical applications. Its high viscosity will cause very slow response at times in low temperature and outdoor installations. | 60°F to 450°F (Not Suitable)              | Yes                                                                                 | 1100                  | 1.26                     | .00061                    |
| BN                                                                                      | NEOBEE M20 <sup>7</sup>      | Low viscosity and a wide temperature range makes this the standard sanitary fill fluid for Smart Transmitters and capillary systems.                                                                                        | -10°F to 400°F (-10°F to 200°F)           | No                                                                                  | 10                    | 0.92                     | .00101                    |
| BS                                                                                      | Food Grade Silicone          | Highest temperature limit for food grade fluids. Because of its high viscosity it does not perform well in low temperatures.                                                                                                | 20°F to 550°F (20°F to 250°F)             | Yes                                                                                 | 350                   | 0.97                     | .00096                    |
| BP                                                                                      | Propylene Glycol             | This is the fill fluid used when Glycol is called for on the customer specification. It has a very narrow temperature range.                                                                                                | 0°F to 200°F (Not Suitable)               | No                                                                                  | 2.85                  | 1.03                     | .00073                    |
| INERT (TYPICALLY FOR CHLORINE AND OXYGEN APPLICATIONS OR IN SILICONE-FREE ENVIRONMENTS) |                              |                                                                                                                                                                                                                             |                                           |                                                                                     |                       |                          |                           |
| C1                                                                                      | Fomblin Y06 <sup>4</sup>     | Ideal inert fluid for transmitter applications. Relatively high vapor pressure above 200°F. Not recommended for use in high temperature situations with low static pressure.                                                | -40°F to 450°F (0°F to 250°F)             | No                                                                                  | 71                    | 1.88                     | .00086                    |
| C2                                                                                      | Halocarbon 6.3 <sup>3</sup>  | Standard inert fluid used in gauge seal assemblies.                                                                                                                                                                         | -40°F to 400°F (-40°F to 200°F)           | Yes                                                                                 | 6.3                   | 1.87                     | .00084                    |
| C3                                                                                      | Halocarbon 1.8 <sup>3</sup>  | Typically used in low temperature applications because of its low viscosity.                                                                                                                                                | -110°F to 220°F (-100°F to 100°F)         | No                                                                                  | 1.8                   | 1.82                     | .00084                    |
| C4                                                                                      | Fluorolube FS-5 <sup>5</sup> | Similar performance to Halocarbon 6.3, however not suitable for vacuum service.                                                                                                                                             | -40°F to 450°F (Not Suitable)             | No                                                                                  | 5                     | 1.86                     | .00087                    |
| SPECIALTY                                                                               |                              |                                                                                                                                                                                                                             |                                           |                                                                                     |                       |                          |                           |
| CK                                                                                      | Krytox 1506 <sup>6</sup>     | Specialty fill fluid, inert.                                                                                                                                                                                                | -40°F to 350°F (-40°F to 300°F)           | No                                                                                  | 62                    | 1.88                     | .00095                    |
| BE                                                                                      | Ethylene Glycol              | Occasionally used in annular (O-ring) seal assemblies.                                                                                                                                                                      | -25°F to 320°F (Not Suitable)             | No                                                                                  | 30                    | 1.10                     | .00062                    |
| CT                                                                                      | Syltherm XLT <sup>2</sup>    | Used for very low process temperatures.                                                                                                                                                                                     | -150°F to 500°F (Not Suitable)            | No                                                                                  | 1.4                   | 0.85                     | .00168                    |

1 Trademark Dow Corning

2 Trademark The Dow Chemical Company

3 Trademark Halocarbon Product Corporation

4 Trademark AUSIMONT S.P.A.

5 Trademark Hooker Chemical Company

6 Trademark The Chemours Company FC, LLC

7 Trademark Stepan Specialty Products

Note: PulsePlus™ fill fluids may have different physical properties than specified. Chemical composition and temperature ranges do not vary.

## DIAPHRAGM SEAL OPTIONS

DIAPHRAGM SEALS

|                                                                                   |                                                    | MS4<br>MS6<br>MS8 | W5<br>W6<br>W7 | T5<br>T6<br>V5 | W9FF<br>W9FR<br>W9RD | W9XT | W9FP | DSTC75 | DSTC15<br>AND<br>LARGER | DSTF05 | DSTF75<br>AND<br>LARGER | DSPP | OR  | DXFR |
|-----------------------------------------------------------------------------------|----------------------------------------------------|-------------------|----------------|----------------|----------------------|------|------|--------|-------------------------|--------|-------------------------|------|-----|------|
| PULSATION PROTECTION (ONLY AVAILABLE WITH REOTEMP PRESSURE GAUGE MOUNTED TO SEAL) |                                                    |                   |                |                |                      |      |      |        |                         |        |                         |      |     |      |
| -PP                                                                               | Pulse Plus™                                        | ✓                 | ✓              | ✓              | ✓                    | ✓    | N/A  | N/A    | ✓                       | N/A    | ✓                       | ✓    | ✓   | N/A  |
| DIAPHRAGM COATING                                                                 |                                                    |                   |                |                |                      |      |      |        |                         |        |                         |      |     |      |
| -AU                                                                               | Gold Plated Diaphragm                              | N/A               | ✓              | N/A            | ✓                    | ✓    | ✓    | ✓      | ✓                       | ✓      | ✓                       | ✓    | N/A | N/A  |
| -TC                                                                               | Teflon Coated Diaphragm PTFE                       | N/A               | ✓              | N/A            | ✓                    | ✓    | ✓    | N/A    | ✓                       | N/A    | ✓                       | ✓    | N/A | N/A  |
| -EP                                                                               | Electropolished Diaphragm                          | N/A               | N/A            | N/A            | N/A                  | N/A  | N/A  | ✓      | ✓                       | ✓      | ✓                       | ✓    | N/A | N/A  |
| FILL                                                                              |                                                    |                   |                |                |                      |      |      |        |                         |        |                         |      |     |      |
| -FW                                                                               | Fill Port Welded Closed                            | STD <sup>1</sup>  | ✓              | ✓              | ✓                    | ✓    | ✓    | ✓      | ✓                       | ✓      | ✓                       | ✓    | N/A | N/A  |
| -VF                                                                               | Fill for Vacuum Service                            | N/A               | ✓              | N/A            | ✓                    | ✓    | ✓    | N/A    | ✓                       | N/A    | ✓                       | ✓    | N/A | N/A  |
| CLEANING AND FINISH                                                               |                                                    |                   |                |                |                      |      |      |        |                         |        |                         |      |     |      |
| -DG                                                                               | Degreased, Shipped in Sealed Bag                   | ✓                 | ✓              | ✓              | ✓                    | ✓    | ✓    | ✓      | ✓                       | ✓      | ✓                       | ✓    | N/A | ✓    |
| -OX                                                                               | Cleaned for Oxygen Service per ASME B40.1          | ✓                 | ✓              | N/A            | ✓                    | ✓    | ✓    | ✓      | ✓                       | ✓      | ✓                       | ✓    | N/A | ✓    |
| -OY                                                                               | Cleaned for Oxygen Service per MIL-STD-1330D       | ✓                 | ✓              | N/A            | ✓                    | ✓    | ✓    | ✓      | ✓                       | ✓      | ✓                       | ✓    | N/A | ✓    |
| PLUG FOR FLUSH PORT                                                               |                                                    |                   |                |                |                      |      |      |        |                         |        |                         |      |     |      |
| -GS                                                                               | 1/4" SS Plug Installed                             | STD               | STD            | STD            | N/A                  | N/A  | N/A  | N/A    | N/A                     | N/A    | N/A                     | N/A  | N/A | ✓    |
| -JS                                                                               | 1/2" SS Plug Installed                             | N/A               | STD            | STD            | N/A                  | N/A  | N/A  | N/A    | N/A                     | N/A    | N/A                     | N/A  | N/A | ✓    |
| -GH                                                                               | 1/4" Hast C Plug Installed                         | ✓                 | ✓              | ✓              | N/A                  | N/A  | N/A  | N/A    | N/A                     | N/A    | N/A                     | N/A  | N/A | ✓    |
| -JH                                                                               | 1/2" Hast C Plug Installed                         | N/A               | ✓              | ✓              | N/A                  | N/A  | N/A  | N/A    | N/A                     | N/A    | N/A                     | N/A  | N/A | ✓    |
| -GM                                                                               | 1/4" Monel Plug Installed                          | N/A               | ✓              | ✓              | N/A                  | N/A  | N/A  | N/A    | N/A                     | N/A    | N/A                     | N/A  | N/A | ✓    |
| -JM                                                                               | 1/2" Monel Plug Installed                          | N/A               | ✓              | ✓              | N/A                  | N/A  | N/A  | N/A    | N/A                     | N/A    | N/A                     | N/A  | N/A | ✓    |
| TAG OPTION                                                                        |                                                    |                   |                |                |                      |      |      |        |                         |        |                         |      |     |      |
| -TS                                                                               | Stainless Steel Tag (1-10 Characters)              |                   |                |                |                      |      |      |        | ✓                       |        |                         |      |     |      |
| -TM                                                                               | Stainless Steel Tag (11-80 Characters)             |                   |                |                |                      |      |      |        | ✓                       |        |                         |      |     |      |
| -TP                                                                               | Paper Tag                                          |                   |                |                |                      |      |      |        | ✓                       |        |                         |      |     |      |
| CERTIFICATION OPTIONS                                                             |                                                    |                   |                |                |                      |      |      |        |                         |        |                         |      |     |      |
| -NC                                                                               | Certificate of NACE Compliance                     | ✓                 | ✓              | N/A            | ✓                    | ✓    | ✓    | N/A    | N/A                     | ✓      | ✓                       | ✓    | N/A | ✓    |
| -CM                                                                               | General Material Conformance                       | ✓                 | ✓              | ✓              | ✓                    | ✓    | ✓    | ✓      | ✓                       | ✓      | ✓                       | ✓    | ✓   | ✓    |
| -MR                                                                               | MTR - Mill Test Report Certificate                 | ✓                 | ✓              | ✓              | ✓                    | ✓    | ✓    | ✓      | ✓                       | ✓      | ✓                       | ✓    | N/A | ✓    |
| -PM                                                                               | PMI - Positive Material Identification Certificate | ✓                 | ✓              | ✓              | ✓                    | ✓    | ✓    | ✓      | ✓                       | ✓      | ✓                       | ✓    | N/A | ✓    |
| -HT                                                                               | Hydrostatic Test per ASME B31.3                    | ✓                 | ✓              | ✓              | ✓                    | ✓    | ✓    | ✓      | ✓                       | ✓      | ✓                       | ✓    | N/A | N/A  |
| -HL                                                                               | Helium Leak Test Certificate                       | ✓                 | ✓              | N/A            | ✓                    | ✓    | ✓    | ✓      | ✓                       | ✓      | ✓                       | ✓    | N/A | N/A  |

✓ Indicates that the option is available

N/A Indicates the option is not available

<sup>1</sup> Standard on MS8, available on MS4 & MS6.