



Application

- ✓ High pressure measurement
- ✓ For hot or viscous media
- ✓ Process industry with possible pressure spike
- ✓ Chemical or water treatment

Special Features

- ✓ Welded construction with no bolts
- ✓ Threaded process connection with various sizes
- ✓ Preferred design for high pressures

Description

Seal-Mate group of diaphragm seals come between the pressure measuring instrument and some medias which can damage the instrument or be harmful if they get directly in touch with the instrument. In many industrial processes, it happens a lot that the media cannot or should not get into direct contact with the instrument. Sometimes that is for the sake of keeping the instrument work properly as the media is too viscous and might easily clog the process connections. And sometimes it is for hygienic purposes.

The flexible metal diaphragm of InstruMate seals is made of SS316L by default and the space between this flexible diaphragm and the instrument process connection is filled with a filling fluid, chosen in best interest of where the instrument is going to be installed.

So the intended pressure is transmitted via the flexible diaphragm to the filling fluid and then via the filling fluid to the pressure instrument.

InstruMate diaphragm seals are vacuum protected and also not sensitive to sudden sharp increase in pressure.

InstruMate threaded diaphragm seal Model 8202 can be used for corrosive and hot media and also poisonous fluid which is dangerous for environments. Seal-Mate 8202 is very much suitable for high pressure measurement at high temperatures. At 400C process temperature, the maximum pressure on 8202 diaphragm seal shall not exceed 700 bar (if Z=22mm).

Material Combinations

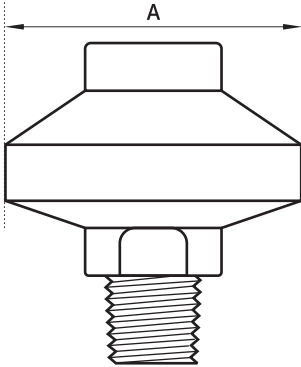
| Versions | Upper body of diaphragm seal | Lower body of diaphragm seal | Diaphragm | Maximum permissible process temperature with Metal seal in °C |
|------------------|------------------------------|------------------------------|----------------|---|
| Standard version | SS316 | SS316L | SS316L | 400 ¹ |
| Option | SS316L | SS316L | SS316L | |
| | | | Monel 400 | |
| | | | Hastelloy C276 | |

1. This value is the maximum temperature that the diaphragm seal can safely endure. Indeed the maximum permissible process temperature in operation is limited by system filling fluid and also the joining method.

Instrument and Process Connections

| Standards | Male process connection | | Female process connection | | Female Instrument connection | |
|--------------------|-------------------------|--|---------------------------|--|------------------------------|---------|
| | Standard | Options | Standard | Options | Standard | Options |
| ASME B 1.20.1 | 1/2 NPT | 1/4 NPT 3/8 NPT 3/4 NPT 1 NPT | 1/2 NPT | 1/4 NPT 3/8 NPT 3/4 NPT 1 NPT | 1/2 NPT | 1/4 NPT |
| DIN ISO 228-1 | G 1/2 A | G 1/4 A G 3/8 A G 3/4 A G 1 A | G 1/2 | G 1/4 G 3/8 G 3/4 G 1 | G 1/2 | G 1/4 |
| DIN 13-1 (ISO 724) | M20 x 1.5 | – | M20 x 1.5 | – | M20 x 1.5 | – |

Dimensions (in mm)



A: Diameter of diaphragm
Z: Effective diameter of diaphragm

| PN | Dimensions in mm | | Lowest measuring range | Highest measuring range |
|------|------------------|----|------------------------|-------------------------|
| | A | Z | | |
| 1000 | 32 | 24 | NS63: 250bar | NS63: 1000bar |
| | | | NS100: 400bar | NS100: 1000bar |
| 600 | 40 | 30 | NS63: 160bar | NS63: 600bar |
| | | | NS100: 250bar | NS100: 600bar |
| 400 | 54 | 42 | NS63: 60bar | NS63: 400bar |
| | | | NS100: 40bar | NS100: 400bar |
| 160 | 64 | 52 | NS63: 2.5bar | NS63: 160bar |
| | | | NS100: 4bar | NS100: 160bar |

How To Order

| Product Group Name | Model | PN | Upper Body Material | Lower Body Material | Diaphragm material | Level of Cleanliness of Wetted Parts | Female Instrument connection | Process connection | Options |
|---------------------------|-------|-------|---------------------|---------------------|--------------------|--------------------------------------|------------------------------|--------------------|---------|
| <i>Example:</i> Seal-Mate | 8202 | PN160 | SS316 | SS316L | SS316L | Oil & Grease Free | 1/2 NPT | 1/2 NPT male | - |

Or simply order by item number on the basis of your previous purchases.

InstruMate®

InstruMate Co, Limited

www.Instrumate.com | info@Instrumate.com