

The selection is detailed on page 6



H15

Flange Joint Type

Product application

Special form integral flange and saddle type flange

A corrosive, polluting, highly viscous or hot medium

Process industry

Functional characteristics

Flush diaphragm

Bolted to monolithic or saddle-type flange

Product description

Diaphragm seals are used to protect pressure measuring instruments used in difficult media. In diaphragm sealing systems, the diaphragm affects the separation of the instrument and the medium. The pressure is transferred to the measuring instrument through a system filled with fluid inside the diaphragm seal system.

To achieve demanding customer applications, we have a wide range of designs, materials and system fillers to choose from.

Model H15 diaphragm seals and welded monolithic flanges or saddle-type flanges form a perfectly matched system.

By welding the process interface of the integral flange and the saddle flange, the compact assembly can be realized at the measurement point.

The process connection can be designed as a flange connection. The measuring instrument is installed in a vertical position.



Technical parameter

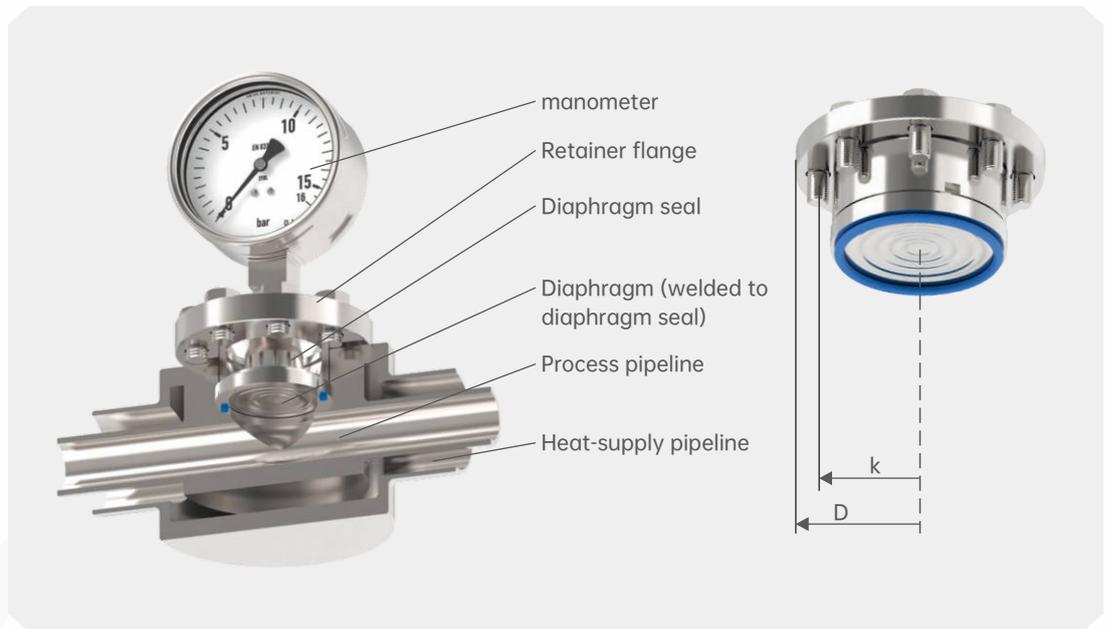
| Model H15 | Standard | Selectable |
|--|---|---|
| Pressure range | 0...0.06 MPa(0...8.7 psi) to 0...25 MPa (0...3600 psi) | |
| Cleanliness of liquid receiving parts | No oil and no fat treatment, according to ASTM G93-03 standard E ISO 15001(< 1,000 mg/m ²) | No oil and no fat treatment according to ASTM G93-03 grade D and ISO 15001(<220 mg/m ²) |
| | | No oil and no fat treatment according to ASTM G93-03 grade D and ISO 05001(<66 mg/m ²) |
| Origin of raw materials for liquid parts | Internation | European Union, Switzerland, United States |
| Connection of measuring instruments | Axial adapter G1/2 | - |
| Seal | FPM to 200°C | PTFE to 260 °C |
| | | Metal (1.4571 silver plated or Inconel silver plated) to 400°C |
| Installation mode | Direct connection | Capillaries |
| | | Cooling element |
| Process connection element | Clamping flange | - |
| | Hexagon screw | |
| | Pressure ring | |
| | Sealing element | |
| Designed to comply with NACE standards | - | MR0175 |
| | | MR0103 |
| Vacuum service | Basic requirement | Quality service |
| | | Premium service |
| Meter mounting bracket (capillary option only) | - | Form H, conforming to DIN 16281,100 mm, aluminum, black |
| | | Form H, conforming to DIN 16281,100 mm, stainless steel |
| | | Pipe mounting bracket for pipe Ø20... 80 mm, steel |

Case

Pressure strap model H15 Mounting by welding monolithic flange

Legend

- D Outer diameter of diaphragm seal
- k Pitch diameter



Combination of materials

| Diaphragm seals the upper | Liquid connection unit | Maximum allowable process temperature (° C / ° F) | |
|--------------------------------|--|---|-------------------------------|
| Stainless Steel 1.4404 (316L) | Stainless Steel 1.4404/1.4435 (316L), standard version | 400/752 | |
| | Stainless Steel 1.4539 (904L) | | |
| | Stainless Steel 1.4541 (321) | | |
| | Stainless Steel 1.4571 (316Ti) | | |
| | ECTFE coating | | 150/302 |
| | PFA (Perfluoroalkoxy) spray (FDA standard) | | 260/500 |
| | PFA (perfluoroalkoxy) coating (Anti-static) | | |
| | gild | | 400/752 |
| | Ceramic coating | | |
| | Hastelloy C22 (2.4602) | | 260/500 |
| | Hastelloy C276 (2.4819) | | 400/752 |
| | Inconel 600 (2.4816) | | |
| | Inconel 625 (2.4856) | | |
| | Incoloy 825 (2.4858) | | |
| | Monel Alloy 400 (2.4360) | | |
| | Nickel 200 (2.4060, 2.4066) | | 260/500 |
| | Titanium (3.7035) | | 150/302 |
| | Titanium (3.7035) | | |
| | tantalum | | |
| | Stainless Steel 1.4435 (316L) | | Stainless Steel 1.4435 (316L) |
| Stainless Steel 1.4539 (904L) | Stainless Steel 1.4539 (904L) | | |
| Stainless Steel 1.4541 (321) | Stainless Steel 1.4541 (321) | | |
| Stainless Steel 1.4571 (316Ti) | Stainless Steel 1.4571 (316Ti) | | |

Combination of materials

| Diaphragm seals the upper cavity | Liquid connection unit | Maximum permissible process temperature (°C/°F) ¹⁾ |
|----------------------------------|-----------------------------|---|
| Duplex steel 2205 (1.4462) | Duplex steel 2205 (1.4462) | 300/572 |
| Super Duplex Steel (1.4410) | Super Duplex Steel (1.4410) | |
| Hastelloy C22 (2.4602) | Hastelloy C22 (2.4602) | 400/752 |
| Hastelloy C276 (2.4819) | Hastelloy C276 (2.4819) | |
| Inconel 600 (2.4816) | Inconel 600 (2.4816) | |
| Inconel 625 (2.4856) | Inconel 625 (2.4856) | |
| Incoloy 825 (2.4558) | Incoloy 825 (2.4858) | |
| Monel Alloy 400 (2.4360) | Monel Alloy 400 (2.4360) | |
| Nickel 200 (2.4060, 2.4066) | Nickel 200 (2.4060, 2.4066) | |
| Titanium, Grade 2 (3.7035) | Titanium Grade 2 (3.7035) | |
| Titanium, Grade 7 (3.7235) | Titanium Grade 11 (3.7225) | |

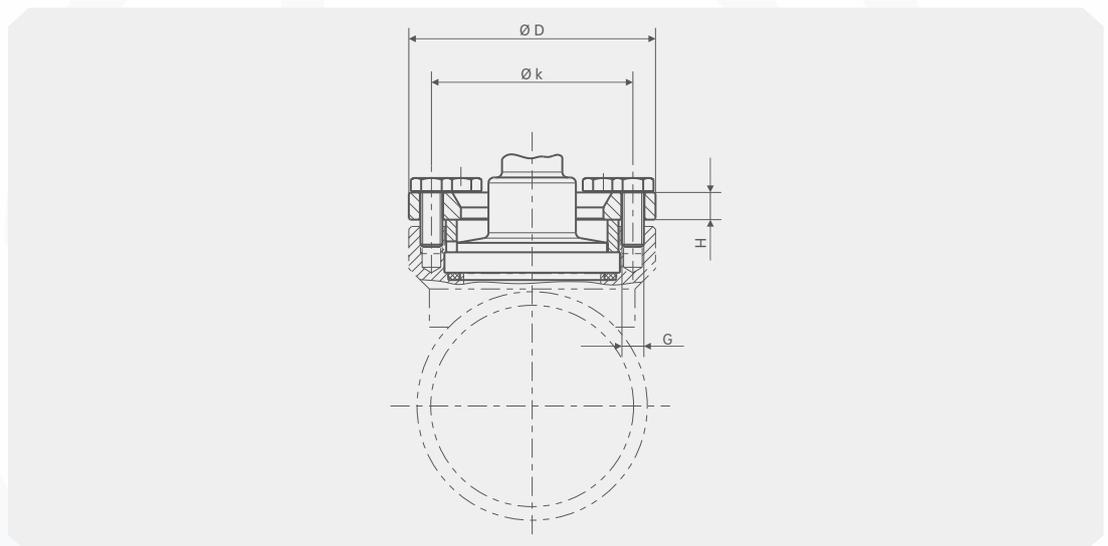
1) Process temperature limits for diaphragm sealing systems depend on the connection type, system filling fluid, and measuring instrument

Size mm [in]

Install through saddle-type flange

Emote

- D diameter
- k Pitch diameter
- H Altitude
- G Screw thread



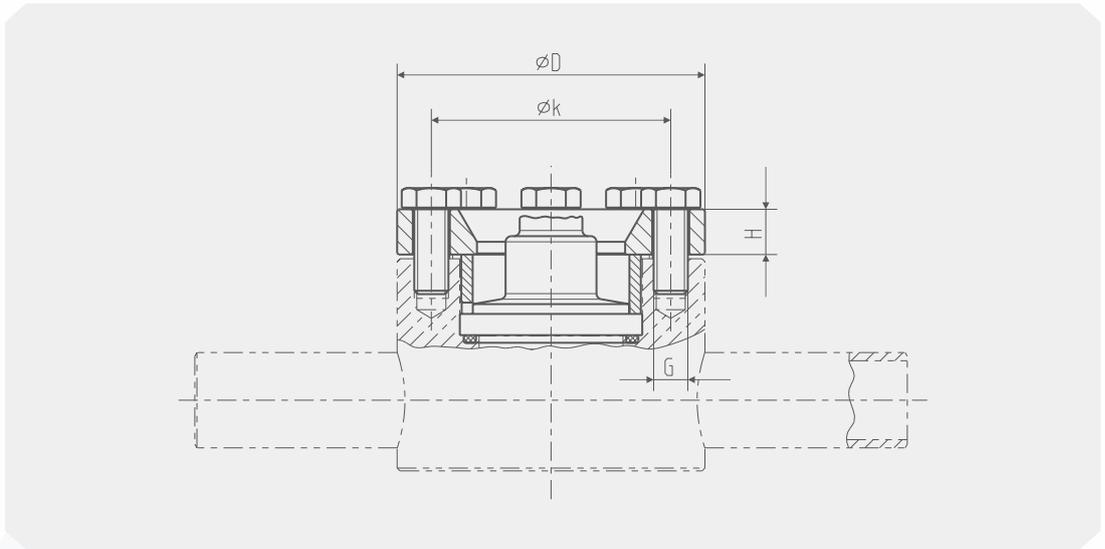
| PN MPa [psi] | Size mm [in] | | | G |
|-----------------------------|--------------|--------------|------------|------|
| | D | k | H | |
| 0 ... 10 [1,450] | 90 [3.543] | 73.5 [2.894] | 10 [0.394] | M 8 |
| 10 ... 25 [1,450 ... 3,600] | 108 [4.252] | 84 [3.307] | 16 [0.63] | M 12 |

Size mm [in]

Mounting by welding monolithic flange (single pipe)

Emote

- D diameter
- k Pitch diameter
- H Altitude
- G Screw thread

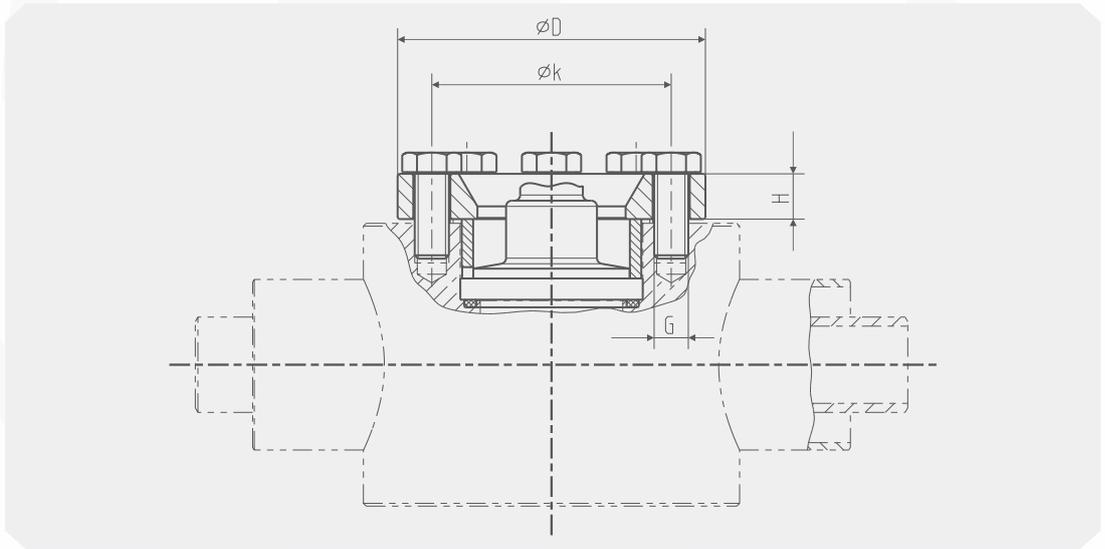


| PN MPa [psi] | Size mm [in] | | | G |
|-----------------------------|--------------|--------------|------------|------|
| | D | k | H | |
| 0 ... 10 [1,450] | 90 [3.543] | 73.5 [2.894] | 10 [0.394] | M 8 |
| 10 ... 25 [1,450 ... 3,600] | 108 [4.252] | 84 [3.307] | 16 [0.63] | M 12 |

Mounting by welding monolithic flange (casing)

Emote

- D diameter
- k Pitch diameter
- H Altitude
- G Screw thread



| PN MPa [psi] | Size mm [in] | | | G |
|-----------------------------|--------------|--------------|------------|------|
| | D | k | H | |
| 0 ... 10 [1,450] | 90 [3.543] | 73.5 [2.894] | 10 [0.394] | M 8 |
| 10 ... 25 [1,450 ... 3,600] | 108 [4.252] | 84 [3.307] | 16 [0.63] | M 12 |



H15-Selection composition

 Selection example **H15** **H** / **P** / **Y**

| | | |
|----------------------------------|--------------|---------------------------------|
| 1.Meter connection specification | A | 1 NPT |
| | B | 1/2NPT |
| | C | 1/4NPT |
| | D | M14*1.5 |
| | E | M20*1.5 |
| | F | M27*2 |
| | G | G 1 |
| | H | G1/2 |
| | I | G1/4 |
| | T () | Other connection specifications |
| 2.Field connection specification | N | DN15 |
| | O | DN20 |
| | P | DN25 |
| | Q | DN32 |
| | R | DN40 |
| | S | DN50 |
| | T | DN65 |
| | U | DN80 |
| | V | DN100 |
| | T () | Other connection specifications |
| 3.Material | X | Carbon steel |
| | Y | 304SS |
| | Z | 316L |
| | T () | Other materials |

Instructions:

It indicates that the H15 diaphragm seal is connected to the instrument with the specification of G1/2, and the field connection specification is DN25, and the material is 304 stainless steel.

Product Certification

Compliance and approval; Rodewieg pressure gauges meet key standards and certifications for process measurement technology; Thus guaranteeing the highest reliability in such Settings;