



Parto Sahand Ara

DFI DIAPHRAGM

DIAPHRAGM FLANGE INTERNAL





Diaphragm Seal Type DFI

Applications

- Aggressive, highly viscous, crystallising or hot media
- Process industry
- Small flange process connections



Diaphragm seal with flange connection, model DFI

Description

Diaphragm seals are used for the protection of pressure measuring instruments in applications with difficult media. In diaphragm seal systems, the diaphragm of the diaphragm seal effects the separation of the instrument and the medium.

The pressure is transmitted to the measuring instrument via the system fill fluid which is inside the diaphragm seal system.

The model DID diaphragm seal is ideally suited for applications with small process connections. Due to the internal diaphragm low measuring ranges can be realised. The large diameter of the diaphragm effects a lower deviation at the measuring instrument when the temperature changes.

- Pressure range : From 400 mbar [5,8 psi] depending on diameter of diaphragm
For diaphragm seal systems with pressure gauges from 6 bar [87 psi]
- Mounting of the diaphragm seal to the measuring instrument may be made via a direct connection, for high temperatures via a cooling element or via a flexible capillary.



Diaphragm Seal Type DFI

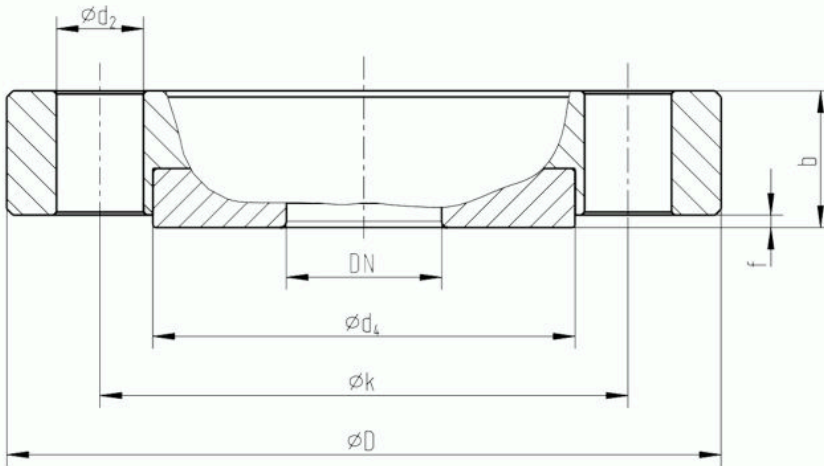
Material combinations

| Upper body of diaphragm seal | Wetted parts | Maximum permissible process temperature in °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) coating, FDA | 260 [500] |
| | PFA (perfluoroalkoxy) coating, antistatic | |
| | Gold plating | 400 [752] |
| | Wikaramic [®] coating | |
| | Hastelloy C22 (2.4602) | |
| | Hastelloy C276 (2.4819) | 400 [752] |
| | Inconel 600 (2.4816) | |
| | Inconel 625 (2.4856) | |
| | Incoloy 825 (2.4858) | |
| | Monel 400 (2.4360) | 260 [500] |
| | Nickel 200 (2.4060, 2.4066) | |
| | Titanium grade 2 (3.7035) | |
| Titanium grade 11 (3.7225) | 150 [302] | |
| Tantalum | 300 [572] | |
| Stainless steel 1.4435 (316L) | Stainless steel 1.4435 (316L) | 400 [752] |
| 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) | |
| Duplex 2205 (1.4462) | Duplex 2205 (1.4462) | 300 [572] |
| Superduplex 2507 (1.4410) | Superduplex 2507 (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 400 (2.4360) | Monel 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) | |



Diaphragm Seal Type DFI

Dimensions in mm [in]



Legend:
 Mb Effective diameter of diaphragm
 D Outer diameter of diaphragm seal
 b Flange thickness
 d₂ Bore diameter
 f Height of raised face
 k Pitch circle diameter
 d₄ Sealing face diameter
 x Number of screws

| DN | PN | Dimensions in mm [in] | | | | | | | X | Weight in kg [lbs] |
|----|-----|-----------------------|-------------|------------|----------------|-----------|--------------|----------------|------------|--------------------|
| | | Mb | D | b | d ₂ | f | k | d ₄ | | |
| ½" | 150 | 32 [1.26] | 90 [3.543] | 22 [0.866] | 16 [0.63] | 2 [0.079] | 60.3 [2.374] | 34.9 [1.374] | 4 | 1 [2.2] |
| | 300 | 40 [1.575] | 95 [3.740] | | | | 66.7 [2.626] | 4 | | |
| ¾" | 150 | | 100 [3.937] | | | | 69.9 [2.752] | 42.9 [1.689] | 4 | 1.1 [2.4] |
| | 300 | | 115 [4.528] | | | | 19 [0.748] | 82.6 [3.252] | 4 | 1.6 [3.5] |
| 1" | 150 | 52 [2.047] | 110 [4.331] | | | | 79.4 [3.126] | 50.8 [2] | 4 | 1.4 [3] |
| | 300 | | 125 [4.921] | | | | 19 [0.748] | | 88.9 [3.5] | 4 |



Diaphragm Seal Type DFI

Order Code

| DFI Configuration | | |
|-------------------|------------------------------------|-------------------------|
| 1 | Process Connection | |
| | 15 | 1/2" DN15 |
| | 20 | 3/4" DN20 |
| | 25 | 1" DN25 |
| | * | Other - please specify |
| 2 | Nominal Pressure Rating DIN | |
| | C1 | Class 150 |
| | C2 | Class 300 |
| | P2 | PN 16 |
| | P3 | PN 40 |
| * | Other - please specify | |
| 3 | Sealing Face | |
| | RF | RF |
| | RTJ | RTJ |
| | FF | FF |
| | * | Other - please specify |
| 4 | Flanged Material | |
| | S | 316L SS (1.4435) |
| | * | Other - please specify |
| 5 | Lower Housing Material | |
| | S | 316L SS (1.4435) |
| | H | Hastelloy C276 (2.4819) |
| | I | Inconel 600 (2.4816) |
| | T | Tantalum |
| | P | PTFE |
| | G | Gold |
| | M | Monel 400 (2.4360) |
| * | Other - please specify | |

| | | |
|---|------------------------------|--------------------------|
| 6 | instrument connection | |
| | 1 | 1/4" NPT-female |
| | 2 | 1/2" NPT-female |
| | 3 | Axial weld-in connection |
| | * | Other - please specify |
| 7 | Accessory | |
| | 1 | Capillary |
| | 2 | Cooling |
| | 3 | Flush Ring |
| | 4 | PTFE line |
| | 5 | N/A |
| * | Other - please specify | |

Additional order details _____

DFI - -

1 2 3 4 5 6 7



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