

# Flush type flanged diaphragm seal

## Model DF50

ASME B40.100

### Features

- Welded diaphragm seal
- Variety of wetted parts material
- Filling port in the upper housing
- Suitable for pressure gauges, switches and transmitters

### Size

1 ½", 2" & 3" ASME/ANSI  
DN40, DN50 & DN80

### Pressure Rating

From 150 lbs up to 2500 lbs  
From PN10 up to PN160

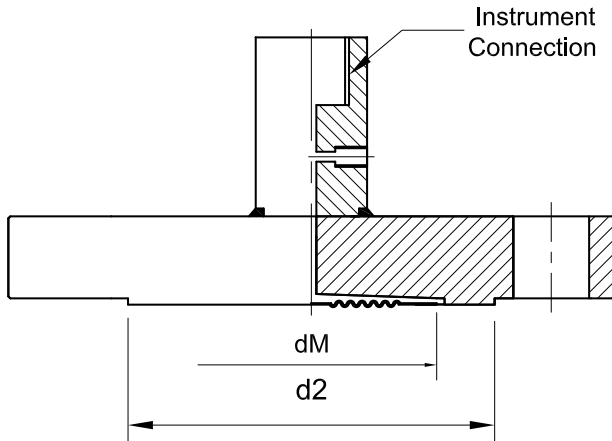
### Applications

Chemical and petrochemical industry  
Machine and apparatus construction  
Offshore installations  
Pulp and paper industry



| Technical specification   | DF50   |
|---|--|
| Process connection size, flanged ASME<br>B16.5<br>EN 1092-1                 | ANSI<br>DIN<br>1 ½", 2", 3"<br>DN40, DN50, DN80  |
| Rating  | ANSI<br>DIN<br>150 lbs, 300 lbs, 600 lbs, 900 lbs, 1500 lbs, 2500 lbs<br>PN10, PN16, PN25, PN40, PN64, PN100, PN160 others on request  |
| Construction<br>Fill port   | Machined flange with welded flush diaphragm<br>In upper housing side with stainless steel ball and set screw   |
| Maximum pressure  | According to flange rating   |
| Measuring principle   | Diaphragm welded to flange   |
| Instrument connections [female]   | 3/8" BSP(F), Others on request   |
| Sealing surfaces<br>ANSI/ASME<br>EN   | B16.5 RF, optional RTJ<br>EN 1092-1 Form B1  |
| Material (wetted parts)<br>Diaphragm & contact surface                      | Stainless steel 316L, Optional 316L with PTFE protection, Hasteloy-C276  |
| Material (non wetted parts)<br>Instrument connection<br>Capillary and armor | Stainless steel 304<br>Stainless steel 316 and stainless steel 304   |
| Filling liquids (temperature range)   | Glycerin (0/400 °F, -18/204 °C),<br>silicone (-40/600 °F, -40/315 °C),<br>halocarbon (-70/300 °F, -56/149 °C),<br>Syltherm 800 (-40/750 °F, -40/400 °C),<br>vegetable oil (32/248 °F, 0/120 °C),<br>Food grade silicone (-13/400 °F, -25/200 °C),<br>Others on request, also depending on selected material and configuration. |
| Accuracy  | Additional 0.5% to the specified tolerance of the mounted instrument   |
| Mounting  | Direct or with capillary   |
| Weight dry in kg  | Depending on flange size   |
| Accessories, options  | NACE, pressure gauges, pressure switches, transducers, capillaries   |

## General dimensions in mm



| SIZE   | RATING      | d2  | dM | Min.Range Direct mounting (kg/cm <sup>2</sup> ) | Min.Range with Capillary (kg/cm <sup>2</sup> ) |
|--------|-------------|-----|----|---|--|
| 1 1/2" | 150 ~ 2500# | 73  | 40 | 4   | 10   |
| 2"     | 150 ~ 2500# | 92  | 63 | 1   | 1  |
| 3"     | 150 ~ 2500# | 127 | 63 | 1   | 1  |
| DN 40  | PN 10 ~ 160 | 88  | 40 | 4   | 10   |
| DN 50  | PN 10 ~ 160 | 102 | 63 | 1   | 1  |
| DN 80  | PN 10 ~ 160 | 138 | 63 | 1   | 1  |

## Order information

| Process Size   | Type | Diaphragm                                   | Flange material | Instrument connection | Flange Rating   | Flange Facing   | Filling fluid  | Options   |  |
|--|------|---|-----------------|-----------------------|---|---|--|---|--|
| <b>ANSI Flanged</b><br>(15) 1 1/2"<br>(20) 2"<br>(30) 3" | DF50 | (S) 316L                                    | (S) 316         | (14T) 3/8 BSP(F)      | <b>ANSI</b><br>(150) 150 lbs<br>(300) 300 lbs<br>(600) 600 lbs<br>(900) 900 lbs<br>(1500) 1500 lbs<br>(2500) 2500 lbs | <b>(RF)</b> Raised face <sup>2)</sup><br><b>(RTJ)</b> Ring joint type <sup>2)</sup> | <b>(CG)</b> Glycerin (direct mounted, -18/204 °C)<br><b>(CK)</b> Silicone (direct mounted or with capillary, -40/315 °C)<br><b>(CF)</b> Halocarbon (direct mounted or with capillary, -56/149 °C)<br><b>(HA)</b> Syltherm 800 (direct mounted or with capillary, -40/400 °C)<br><b>(GZ)</b> Vegetable oil (direct mounted or with capillary, 0/120 °C)<br><b>(CZ)</b> Food grade silicone (direct mounted or with capillary, -25/200 °C) | <b>(NH)</b> Tagging wired<br><b>(OF)</b> Oil free (only filled with halocarbon)<br><b>(CA)</b> Stainless steel armored capillary <sup>3)</sup><br><b>(CP)</b> Stainless steel armored capillary with PVC sleeving <sup>3)</sup> |  |
|  |      | (SJ) 316L with Teflon Coating <sup>1)</sup> | (L) 316L        |                       |   |   |  |   | (SJ) 316 with PTFE coating <sup>1)</sup> |
|  |      | (H) Hastelloy C                             | (H) Hastelloy C |                       |   |   |  |   | (H) Hastelloy C                          |
|  |      |   |                 |                       |   |   |  |   |  |
| <b>DIN Flanged</b><br>(DN40)<br>(DN50)<br>(DN80)         |      |   |                 |                       | <b>DIN</b><br>(PN10)<br>(PN16)<br>(PN25)<br>(PN40)<br>(PN64)<br>(PN100)<br>(PN160)                                    |   |  |   |  |

others on request

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3) Max length 30m, specify length in meter  
EG. CP1.0= CP with 1m

1) Restricted to temperature 200 °C 2) The DIN-flange facing depends on nominal size and nominal pressure

## How to order

|              |      |              |                 |                       |               |               |               |         |
|--------------|------|--------------|-----------------|-----------------------|---------------|---------------|---------------|---------|
| Process Size | Type | Wetted Parts | Flange material | Instrument connection | Flange rating | Flange facing | Filling fluid | Options |
| 20           | DF50 | S            | S               | 14T                   | 150           | RF            | CK            | CA1.0   |

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