

Diaphragm seal

Direct flanged flushed type



Features:

- Laser welded flush diaphragm
- Easy flushing (through flushing ring)
- Most suitable for slurry, corrosive & high viscous service
- Flushing ring, flange & diaphragm are available in various type of SS and exotic materials

Applications:

- Diaphragm seals are provided in the instruments like pressure gauges, switches, transmitters in order to isolate the element from the main service due to its corrosive viscous and sedimented nature and to avoid clogging and solidification. These kinds of seals are widely used in the viscous & corrosive services where flushing is required frequently.

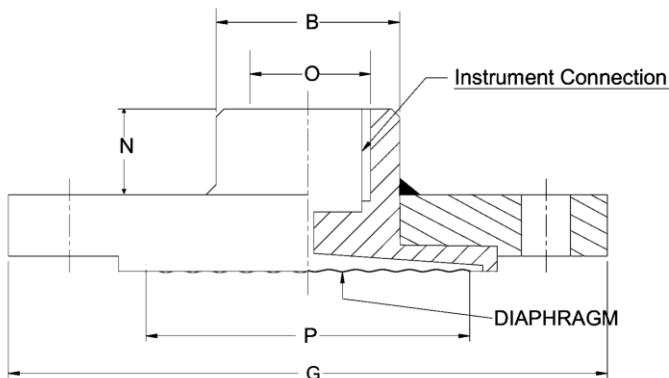
Standard Parameters

| | |
|-----------------------|--|
| Range | : S06 = -1 to 0 kg/cm ² & 0 to 250 kg/cm ² |
| Process temperature | : - 40 °C to 200 °C or as per fill fluid |
| Instrument connection | : 1/2" BSP[F] |
| Process connection | : Flange (As per DIN/BS/ANSI/JIS), 40NB(1½") & above |
| Flange finish | : 125-250 AARH |

Materials of Construction

| | |
|------------|------------------------|
| Diaphragm | : AISI 316L SS |
| Flange | : AISI 316 SS |
| Fill fluid | : Silicon oil – DC 200 |
| Gasket | : PTFE |

Dimensional drawing



| B | G | N | O | P |
|----|----|----|------------|-----|
| 30 | ** | 20 | 1/2"BSP[F] | *** |

Note: ● Drawings are not to scale ● All dimensions are in mm

**As per standard flange table ANSI, DIN, BS, JIS Etc.,
***40/53/63/70 mm Dia to suit flange.

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FF

How to select

E.g. for flange size of 1 1/2" as per BS-10 table E with raised face: C10-A2

A2 Raised face **A3** Flat face

As per DIN 2527

| DN | PN | CODE | DN | PN | CODE |
|-----|-----|------|-----|-----|------|
| 40 | 6 | A41 | 65 | 6 | A61 |
| | 10 | A42 | | 10 | A62 |
| | 16 | A43 | | 16 | A63 |
| | 25 | A44 | | 25 | A64 |
| | 40 | A45 | | 40 | A65 |
| | 64 | A46 | | 64 | A66 |
| | 100 | A47 | | 100 | A67 |
| | 160 | A48 | | 160 | A68 |
| | 250 | A49 | | 250 | A69 |
| 400 | A50 | 400 | A70 | | |
| 50 | 6 | A51 | 80 | 6 | A71 |
| | 10 | A52 | | 10 | A72 |
| | 16 | A53 | | 16 | A73 |
| | 25 | A54 | | 25 | A74 |
| | 40 | A55 | | 40 | A75 |
| | 64 | A56 | | 64 | A76 |
| | 100 | A57 | | 100 | A77 |
| | 160 | A58 | | 160 | A78 |
| | 250 | A59 | | 250 | A79 |
| | 400 | 60 | | 400 | A80 |

As per DIN 2642

| DN | PN | CODE |
|----|----|------|
| 40 | 10 | A95 |
| 50 | | A96 |
| 65 | | A97 |
| 80 | | A98 |

As per DIN 2633

| DN | PN | CODE |
|----|----|------|
| 40 | 16 | A86 |
| 50 | | A87 |
| 65 | | A88 |
| 80 | | A89 |

As per DIN 2635

| DN | PN | CODE |
|----|----|------|
| 40 | 40 | B05 |
| 50 | | B06 |
| 65 | | B07 |
| 80 | | B08 |

As per JIS-B 2210

| Nominal Size | Rating/Class | CODE |
|--------------|--------------|------|
| 40A | 5K | B72 |
| | 10K | B73 |
| | 40K | B74 |
| 50A | 5K | B75 |
| | 10K | B76 |
| | 40K | B77 |
| 65A | 5K | B78 |
| | 10K | B79 |
| | 40K | B80 |
| 80A | 5K | B81 |
| | 10K | B82 |
| | 40K | B83 |

As per ANSI B 16.5

| Nominal Size | Rating/Class | CODE | Nominal Size | Rating/Class | CODE |
|--------------|--------------|------|--------------|--------------|------|
| 1 1/2" | 150 | B33 | 2 1/2" | 150 | B45 |
| | 300 | B34 | | 300 | B46 |
| | 600 | B35 | | 600 | B47 |
| | 900 | B36 | | 900 | B48 |
| | 1500 | B37 | | 1500 | B49 |
| | 2500 | B38 | | 2500 | B50 |
| 2" | 150 | B39 | 3" | 150 | B51 |
| | 300 | B40 | | 300 | B52 |
| | 600 | B41 | | 600 | B53 |
| | 900 | B42 | | 900 | B54 |
| | 1500 | B43 | | 1500 | B55 |
| | 2500 | B44 | | 2500 | B56 |

As per BS-10

| Nominal Size | Table | CODE |
|--------------|-------|------|
| 1 1/2" | D | C09 |
| | E | C10 |
| | F | C11 |
| | H | C12 |
| | J | C13 |
| | K | C14 |
| | 2" | D |
| E | | C16 |
| F | | C17 |
| H | | C18 |
| J | | C19 |
| K | | C20 |

| Nominal Size | Table | CODE |
|--------------|-------|------|
| 2 1/2" | D | C21 |
| | E | C22 |
| | F | C23 |
| | H | C24 |
| | J | C25 |
| | K | C26 |
| 3" | D | C27 |
| | E | C28 |
| | F | C29 |
| | H | C30 |
| | J | C31 |
| | K | C32 |

Ordering codes

| | | | |
|---|-------------|--|-------------|
| 1. Instrument Connection 10BF 3/8" BSP [F] 15BF 1/2" BSP [F](Standard) 15NF 1/2" NPT [F] *(Select this option when dry seal is required) | 15BF | 6. Filling fluid S1 Silicon DC 200 [-40 to 205°C] S2 Silicon DC 704 [10 to 337°C] S3 Silicon DC 710 [7 to 371°C] FG Food Grade Oil [-20 to 140°C] | FG |
| 2. Diaphragm S6L AISI 316L SS (Standard) MO MONEL HC Hastelloy 'C' TI Titanium TN Tantalum *(Range up to 21Kg/cm ²) | S6 | 7. Remote Mounting* Specify in Meters *with capillary of max up to 6 Meters | 3Mtr |
| 3. Flange Material S4 AISI 304 SS S6 AISI 316 SS (Standard) S6L AISI 316L SS TN Tantalum TI Titanium HC Hastelloy 'C' MO MONEL CS Carbon steel | S6 | 8. Capillary S4 AISI 304 SS S6 AISI 316 SS | S4 |
| 4. Process Connection As Per DIN / BS / ANSI / JIS (Select Code from Flange Table) | C10 | 9. Capillary covered with armour* S4 AISI 304 SS S6 AISI 316 SS PV PVC (Ambient Temp. Max. 60°C) *Applicable with Capillary option if selected. | S4 |
| 5. Protection on wetted parts PT PTFE Protection for Diaphragm (Max. Up to 150 °C) (Suitable for Pressure Ranges only) PC PTFE Coating on Diaphragm (Max. Up to 315 °C) | PT | 13. Other Options HL Helium leak test WI Dry Seal Only Without Instrument MT Material Test Certificates* *Material test certificates will be provided for wetted parts only with chemical composition testing. For others, please consult factory. | MT |

Ordering example: FF-15BF-S6-S6-C10-PT-FG-3MTR-S4-S4-MT

Compatible models: IP, IE

Note:

1. It is recommended that the MOC of the diaphragm be equivalent or superior than the MOC of the bottom chamber.
2. Specifications and dimensions given in this product catalogue represents the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.