

Diaphragm seal Flange I-section type



Features:

- Continuous duty
- Flushing ring (optional)
- I section extension to facilitate smaller flange sizes
- Suitable for corrosive & viscous service.

Applications:

- Diaphragm seals are designed to isolate the sensing element of pressure gauges and pressure switches from process fluids that they may be corrosive, viscous, sedimentous and / or with a high temperature.

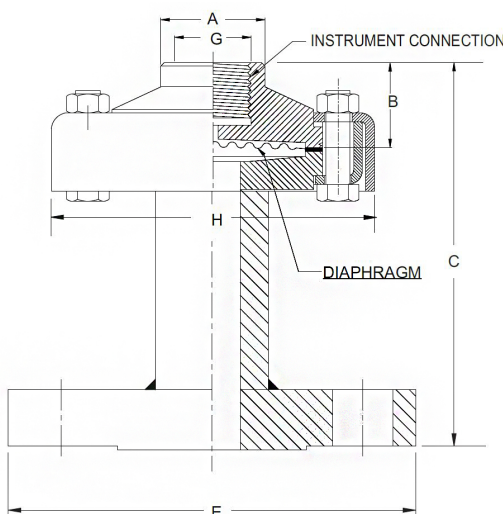
Standard Parameters

Seal type & Range	: T09 = -1 to 0 kg/cm ² & 0 to 70 kg/cm ² (Standard)
	: T10 = 100 kg/cm ² to 400 kg/cm ²
	: T11 = -1 to 0 kg/cm ² & 0 to 70 kg/cm ²
Process temperature	: Max 150°C for PTFE lined
	: -40°C to 200°C for without PTFE lined
Instrument connection	: 1/2" BSP[F]
Process connection	: Flange (as per DIN/BS/ANSI/JIS)
Fill fluid	: Silicon Oil - DC 200
Mounting	: Direct (without capillary)

Materials of Construction

Diaphragm	: AISI 316L SS
Top chamber	: AISI 304 SS
Bottom chamber ("I" Section)	: AISI 316 SS Flange (as per DIN/BS/ANSI/JIS)
Nuts, Bolts & Slip ring (Cup type)	: Steel (Plated)
Sealing gasket	: PTFE

Dimensional drawing



Type T09 (Standard)

A	~B	~C	E	H	G
30	31	75	*	98	1/2" BSP[F]

*As per standard flange table ANSI, DIN, BS, JIS Etc..

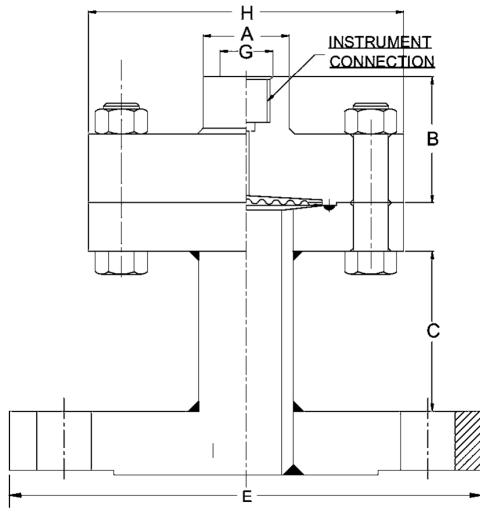
Note: ● Drawings are not to scale ● All dimensions are in mm

Diaphragm seal

Flange I-section type

IF

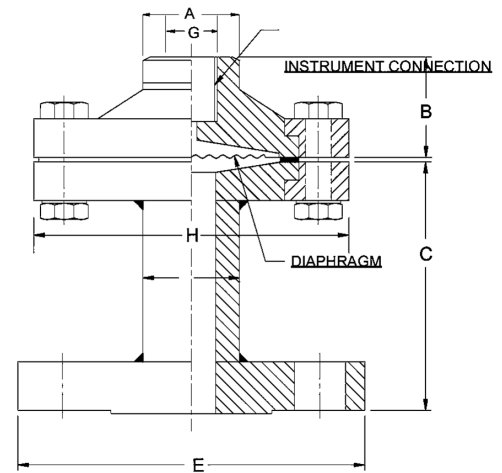
Type T10



A	~B	~C	E	H	G
30	44	50	*	110	1/2" BSP[F]

*As per standard flange table ANSI, DIN, BS, JIS Etc.

Type T11



A	~B	~C	E	H	G
30	31	75	*	98	1/2" BSP[F]

*As per standard flange table ANSI, DIN, BS, JIS Etc.

How to select

E.g. for flange size of 1 as per BS-10 table E with raised face: B97-A2

A2 Raised face **A3** Flat face

AS Per DIN 2527		
DN	PN	CODE
10	6	A01
	10	A02
	16	A03
	25	A04
	40	A05
	64	A06
	100	A07
	160	A08
	250	A09
	400	A10
15	6	A11
	10	A12
	16	A13
	25	A14
	40	A15
	64	A16
	100	A17
	160	A18
	250	A19
	400	A20
20	6	A21
	10	A22
	16	A23
	25	A24
	40	A25
25	6	A26
	10	A27
	16	A28
	25	A29
	40	A30
	64	A31
	100	A32
	160	A33
	250	A34
400	A35	

AS Per DIN 2633		
DN	PN	CODE
10	16	A81
15		A82
20		A83
25		A84
AS Per DIN 2635		
DN	PN	CODE
10	40	A99
15		B01
20		B02
25		B03
AS Per DIN 2642		
DN	PN	CODE
10	10	A90
15		A91
20		A92
25		A93

As per ANSI B 16.5		
Nominal Size	Rating/Class	CODE
1/2"	150	B09
	300	B10
	600	B11
	900	B12
	1500	B13
	2500	B14
	150	B15
3/4"	300	B16
	600	B17
	900	B18
	1500	B19
	2500	B20
	150	B21
	300	B22
1"	600	B23
	900	B24
	1500	B25
	2500	B26

As per JIS-B 2210		
Nominal Size	Rating/Class	CODE
10A	5K	B57
	10K	B58
	40K	B59
	5K	B60
15A	10K	B61
	40K	B62
20A	5K	B63
	10K	B64
	40K	B65
25A	5K	B66
	10K	B67
	40K	B68

As per BS-10		
Nominal Size	Table	CODE
1/2"	D	B84
	E	B85
	F	B86
	H	B87
	J	B88
3/4"	K	B89
	D	B90
	E	B91
	F	B92
	H	B93
1"	J	B94
	K	B95
	D	B96
	E	B97
	F	B98
	H	B99
	J	C01
K	C02	

Ordering Codes

1. Type T09 -1 to 0 kg/cm ² & 0 to 70 kg/cm ² (Standard) T10 100 kg/cm ² to 400 kg/cm ² T11 -1 to 0 kg/cm ² & 0 to 70 kg/cm ²	T09	6. Bottom chamber (I Section) S4 AISI 304 SS S6 AISI 316 SS (Standard) S6L AISI 316L SS TT TITANIUM MO MONEL HC Hastelloy 'C' TN Tantalum CS Carbon Steel PV PVC* PD PVDF* PP <small>*Refer pressure vs temperature table below Polypropylene*</small>	S6	10. 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. Instrument Connection* 10BF 3/8" BSP [F] 15BF 1/2" BSP [F](Standard) 15NF 1/2" NPT [F]	15BF	7. Tension Flange & Nut – Bolts* S4 AISI 304 SS (Standard) S6 AISI 316 SS	S6	11. Remote Mounting* Specify in Meters <small>*with capillary of max up to 6 Meters</small>	3Mtr
3. Top Chamber S4 AISI 304 SS (Standard) S6 AISI 316 SS S6L AISI 316L SS CS Carbon Steel	S6	8. Process Connection As per din / bs / ansi/ jis (select code from flange table)	S6	11. Capillary S4 AISI 304 SS S6 AISI 316 SS	S4
4. Diaphragm S6L AISI 316L SS (Standard) MO MONEL HC Hastelloy 'C' SL Silver* TI Titanium TN Tantalum <small>*(Range up to 21Kg/cm²)</small>	S6	9. Protection on wetted parts PL PTFE Lining on Bottom Chamber ("I" Section)- 2 mm THICK (Max. Up to 150 °C) * 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)	B97-A2	12. Capillary covered with armour* S4 AISI 304 SS S6 AISI 316 SS PV PVC (Ambient Temp. Max. 60°C) <small>*Applicable with capillary option if applied</small>	S4
5. Sealing Gasket TF PTFE (Standard) ME Metal	TF		PT	13. Other Options HL Helium leak test WI Dry Seal Only Without Instrument Material Test MT Material Test Certificates* <small>*Material test certificates will be provided for wetted parts only with chemical composition testing. For others, please consult factory.</small>	MT

Ordering example: IF-T09-15BF-S6-S6-TF-S6-S6-B97-A2-PT-FG-3MTR-S4-S4-MT

Compatible Model: 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.

MOC of bottom chamber	Pressure Vs Temperature					
	20°C	40°C	60°C	80°C	100°C	120°C
PVDF	10Kg/cm ²	10Kg/cm ²	10Kg/cm ²	7Kg/cm ²	4Kg/cm ²	2Kg/cm ²
PP	10Kg/cm ²	10Kg/cm ²	6Kg/cm ²	4Kg/cm ²	1Kg/cm ²	NA
PVC	10Kg/cm ²	10Kg/cm ²	4Kg/cm ²	1Kg/cm ²	NA	NA