

Flush type flanged diaphragm seal model DF

Flanged connections to ANSI/ASME or EN

Features

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

Flange size

From DN25 up to DN100
From 2" up to 4"

Pressure rating

From PN16 up to PN400
From 150 lbs up to 2500 lbs

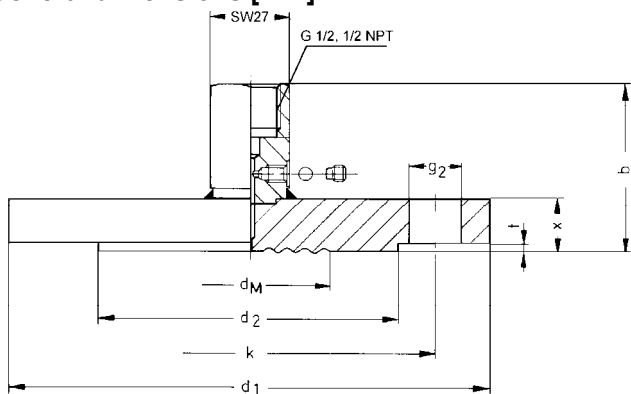
Applications

Chemical and petrochemical industry
Machine and apparatus construction
Offshore installations
Waste water treatment



Technical specification	DF
Process connection size, flanged	2", 3", 4", DN25, DN50, DN80, DN100, others on request
Rating	ANSI EN 150 lbs, 300 lbs, 600 lbs, 900 lbs, 1500 lbs, 2500 lbs PN16, PN40, PN63, PN100, PN160, PN250, PN400
Construction	Machined flange with welded flush diaphragm
Fill port	In hexagon of instrument connection with stainless steel ball and set screw
Measuring principle	Diaphragm welded to flange, optional alloys welded over sealing surface, or optional vacuum proof foils glued over diaphragm and sealing surface
Instrument connections (female)	
ANSI/ASME	½ NPT
ISO 228-1	G ½, others on request
Sealing surfaces	
ANSI/ASME	B16.5 RF, optional RTJ
EN	EN 1092-1 Form B1
Material (wetted parts)	
Flange	Stainless steel 316Ti (1.4571)
Diaphragm	Stainless steel 316L (1.4435), optional welded diaphragms Tantalum, Hastelloy B2, Hastelloy C276, Monel 400, others on request, optional glued vacuum proof foils PTFE, silver, others on request
Material (non wetted parts)	
Flange	Stainless steel 316Ti (1.4571)
Instruments connection	Stainless steel 316Ti (1.4571)
Capillary and armor	Stainless steel 316Ti (1.4571) and stainless steel 304 (1.4301)
Accuracy	Additional 0,5 % to the specified tolerance of the mounted instrument
Minimum range span (100=T5500)	d _m 28 = 6 bar, d _m 38 = 1,6 bar, d _m 52 = 1 bar, d _m 80 = 0,6 bar
Filling liquids (temperature range)	Glycerin (0/400 °F, -18/204 °C - not for vacuum or compound ranges) Silicone (-40/600 °F, -40/315 °C), Halocarbon (-70/300 °F, -56/149 °C) Syltherm 800 (-40/750 °F, -40/400 °C), Vegetable oil (32/248 °F, 0/120 °C), Neobee M-20 (0/320 °F, -17/160 °C), others on request, also depending on selected material and configuration
Mounting	Direct, optionally with capillary
Weight dry [kg]	Depending on flange size
Accessories, options	Flushing ring, pressure gauges, pressure switches, cooling element, capillaries

General dimensions [mm]



DN	Min span
25	6 bar
50	1 bar
80	0,6 bar
100	0,6 bar

DN	Min span
2"	1 bar
3"	0,6 bar
4"	0,6 bar

Related to pressure gauges 100 mm and valid also for vacuum and compound ranges.

DN	PN	b	d ₁	d ₂	d _M	f	g ₂	k	x
25	40	55,5	115	68	28	2	4 x Ø 14	85	18
	40	57,5	165				4 x Ø 18	125	20
50	63	63,5	180	102	52	3	4 x Ø 22	135	26
	100	65,5	195				4 x Ø 26	145	28
	160	67,5	195				4 x Ø 26	145	30
	250	75,5	200				8 x Ø 26	150	38
	320	79,5	210				8 x Ø 26	160	42
	400	89,5	235				8 x Ø 30	180	52
80	16	57,5	200	138	80	3	8 x Ø 18	160	20
	40	61,5	200				8 x Ø 18	160	24
	63	65,5	215				8 x Ø 22	170	28
	100	69,5	230				8 x Ø 26	180	32
	160	73,5	230				8 x Ø 26	180	36
	250	83,5	255				8 x Ø 30	200	46
100	16	57,5	220	158	80	3	8 x Ø 18	180	20
	40	61,5	235				8 x Ø 22	190	24

DN	PN	b	d ₁	d ₂	d _M	f	g ₂	k	x
2"	150	57	152	91,9	52	1,6	4 x Ø 20	120,7	19,5
	300	60	165				8 x Ø 20	127	22,5
	600	69,5	165				8 x Ø 20	127	32
	1500	82	216				8 x Ø 26	163,1	44,5
	2500	95	235				8 x Ø 29	171,5	57,5
3"	150	61,5	191	127	80	1,6	4 x Ø 20	152,4	24
	300	66	210				8 x Ø 23	168,1	28,5
	600	76	210				8 x Ø 23	168,1	38,5
	900	82	241			8 x Ø 26	190,5	44,5	
	1500	92	267			8 x Ø 32	203,2	54,5	
	2500	110,5	305			8 x Ø 36	228,6	73	
4"	150	61,5	229	157,2	80	1,6	8 x Ø 20	190,5	24
	300	69,5	254				8 x Ø 23	200,1	32
	600	82	273			8 x Ø 26	215,9	44,5	
	900	88,5	292			8 x Ø 32	234,9	51	

Order information

Process connection	Diaphragm material	Flange housing material	Instrument connection	Rating	Flange Facing	Filling fluid	Options
ANSI Flanged	(S) 316L (1.4435)	(S) 316Ti (1.4571)	(04T) ½ NPT female	ANSI	(RF) Raised face ¹⁾	(CG) Glycerin (direct mounted, 0/400 °F, -18/204 °C)	(NH) Tagging wired
(20) 2" ²⁾	(P) Monel 400	others on request		(150) 150 lbs	(RTJ) Ring joint type ¹⁾	(CK) Silicone (direct mounted or with capillary ≤ 10' (3 m), -40/600 °F, -40/315 °C)	(6B) Oxygen cleaned (only filled with Halocarbon)
(30) 3" ³⁾	(U) Tantalum max temperature limit 480 °F, 250 °C		(15T) G ½ female	(300) 300 lbs			
(40) 4" ³⁾	(H) Hastelloy C276		others on request	(600) 600 lbs			
EN Flanged	(G) Hastelloy B2			(900) 900 lbs	¹⁾ the EN-flange facing depends on nominal size and nominal pressure	(EJ) Silicone (with capillary > 10' (3 m), -40/600 °F, -40/315 °C)	(1115A) Stainless steel armored capillary ¹⁾
Nominal Diameter	(T) Teflon (PTFE) max temperature limit 300 °F, 150 °C			(1500) 1500 lbs			
(DN25) ¹⁾	(TI) Titanium max temperature limit 480 °F, 250 °C			(2500) 2500 lbs			
(DN50) ²⁾	(SH) Halar coated (ECTFE) max temperature limit 300 °F, 150 °C			EN			
(DN80) ³⁾	(W) Gold plated			Nominal pressure			
(DN100) ³⁾				(PN40)			
¹⁾ minimum span 6 bar				(PN63)	(CF) Halocarbon (direct mounted or with capillary, -70/300 °F, -56/149 °C)	(1115P) Stainless steel armored capillary with PVC sleeving ¹⁾	
²⁾ minimum span 1 bar				(PN100)			
³⁾ minimum span 0,6 bar				(PN160)			
others on request				(PN250)			
				(PN400)		(HA) Syltherm 800 (direct mounted or with capillary, -40/750 °F, -40/400 °C)	¹⁾ max. length 30 m, specify connections as per connection table and length in [mm], E. G. armored line with length 3 meters 1115A-3000
				others on request		(GZ) Vegetable oil (direct mounted or with capillary, 32/248 °F, 0/120 °C)	
						others on request	

How to order

Process connection	Type	Diaphragm material	Flange housing material	Instrument connection	Rating	Flange Facing	Filling fluid	Option
20	DF	H	S	04T	150 LBS	RF	CF	NH

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