

# Diaphragm seals flanged types

## Model DF21

ASME B40.100

### Features

- Removable diaphragm seal capsule
- Metal diaphragms with Teflon gasket
- Removable top and bottom housing
- Variety of wetted parts materials

### Pressure rating

From 150 lbs up to 1500 lbs

From PN6 up to PN100

### Applications

Chemical and petrochemical industry

Machine and apparatus construction

Offshore installations

Pulp and paper industry

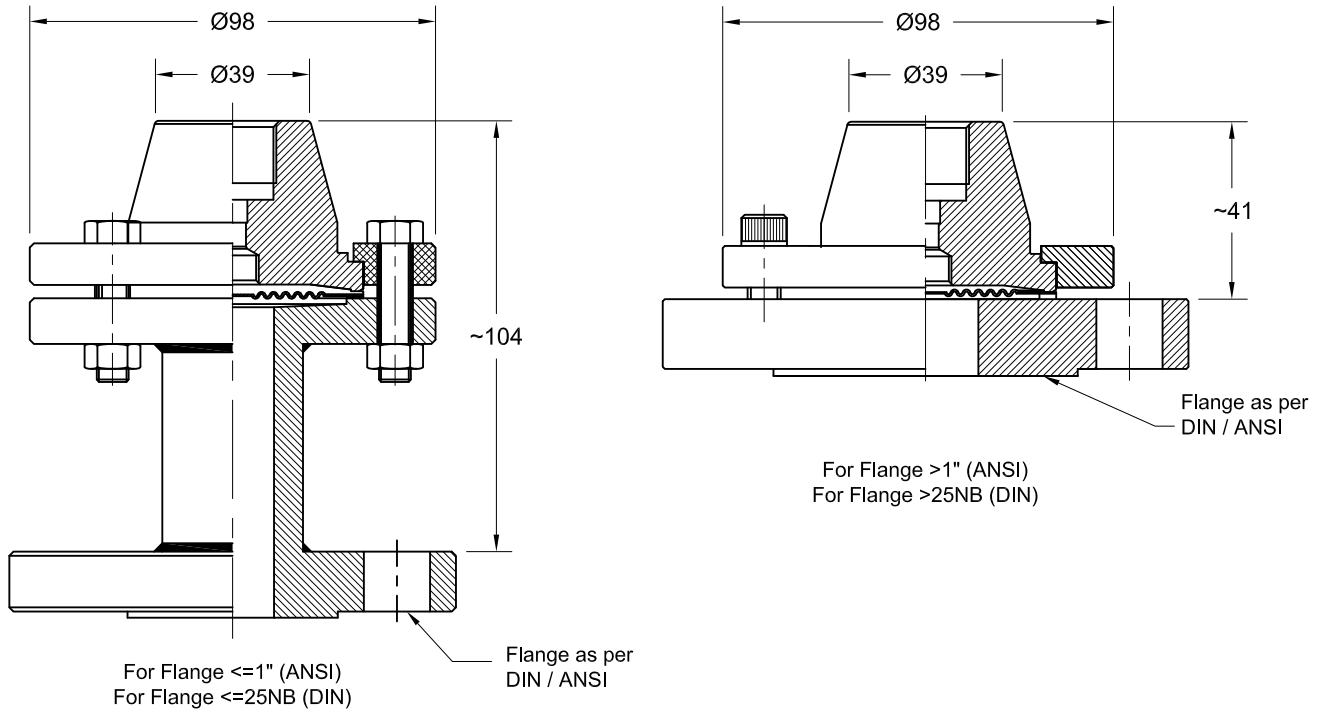
Waste water treatment



Technical specification	DF21	
Process connection size, flanged		
ASME B16.5	ANSI	1/2", 3/4", 1", 1 1/2", 2", 3"
EN 1092-1	DIN	DN15, DN25, DN40, DN50, DN80, others on request
Rating	ANSI	150 lbs, 300 lbs, 600 lbs, 900 lbs, 1500 lbs
	DIN	PN10, PN16, PN25, PN40, PN64, PN100, others on request
Construction		Bolted top and bottom housing, removable for easy maintenance
Fill port		At the side with stainless steel ball and set screw
Flushing connection		Optional flushing
Flushing connection size		1/4" 1/2" NPT female
Maximum pressure		
Metal bottom housing [lbs / bar]		1500/100
Other bottom housing [lbs / bar]		150/10
Measuring principle		Screwed capsule to top housing
Instrument connections [female]		3/8" BSP, 1/2" NPT, others on request
Material (wetted parts)		
Bottom housing		Stainless steel 316, 316L, 316 with teflon protection, polypropylene, PVC, Hastelloy-C, Monel
Diaphragm (metal type)		Stainless steel 316L, 304L, Carpenter 20, Hastelloy B, Hastelloy C, Nickel, K-Monel, Tantalum
Material (non wetted parts)		
Top housing		Stainless steel 304, 316
Clamp rings		Steel painted black, optional stainless steel
Bolts and nuts		Stainless steel 300 series
Accuracy		Additional 0,5 % to the specified tolerance of the mounted instrument
Filling liquids (temperature range)		Glycerin (0/400 °F, -18/204 °C), 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), Food grade silicone (-13/400 °F, -25/200 °C), Others on request, also depending on selected material and configuration.
Mounting		Direct or with capillary
Accessories, options		NACE, pressure gauges, pressure switches, transducers, capillaries

All specifications are subject to change without notice.

IN.DF21 Rev. I 18/01/2018

**General dimensions in mm**

**Order information**

Process connection	Type	Diaphragm	Bottom housing material	Instrument connection	Rating	Flange facing	Filling fluid	Options		
<b>ANSI Flanged</b>	DF21	(S) 316L	(S) 316	(14T) 3/8" BSP(F)	<b>ANSI</b> (150) 150 lbs (300) 300 lbs (600) 600 lbs (900) 900 lbs (1500) 1500 lbs	(FF) Flat face <sup>2)</sup>	(CG) Glycerin (direct mounted, -18/204 °C)	(NH) Tagging wired		
(05) 1/2"		(C) 304L	(L) 316L	(04T) 1/2" NPT(F)		(RF) Raised face <sup>2)</sup>	(CK) Silicone (direct mounted or with capillary, -40/315 °C)	(OF) Oil free (only filled with halocarbon)		
(07) 3/4"		(D) Carpenter 20	(SP) 316 with teflon lined <sup>1)</sup>			(RTJ) Ring joint type <sup>2)</sup>	(CF) Halocarbon (direct mounted or with capillary, -56/149 °C)	(YT) Stainless steel 316 top housing		
(10) 1"		(G) Hastelloy B	(PP) Polypropylene <sup>3)</sup>				(CF) Halocarbon (direct mounted or with capillary, -56/149 °C)	(SE) Stainless steel clamp rings		
(15) 1 1/2"		(H) Hastelloy C	(V) PVC <sup>3)</sup>				(HA) Syltherm 800 (direct mounted or with capillary, -40/400 °C)	(SR4) Spacer ring with 1/2" NPT flushing <sup>5)</sup>		
(20) 2"		(N) Nickel	(H) Hastelloy C	(M) Monel				(GZ) Vegetable oil (direct mounted or with capillary, 0/120 °C)	(SR2) Spacer ring with 1/4" NPT flushing <sup>5)</sup>	
(30) 3"		(P) K-Monel						(CZ) Food grade silicone (direct mounted or with capillary, -25/200 °C)	(CA) Stainless steel armored capillary <sup>4)</sup>	
		(U) Tantalum							(CP) Stainless steel armored capillary with PVC sleeving <sup>4)</sup>	
<b>DIN Flanged</b>							<b>DIN</b>			
(DN15)							(PN10)			
(DN25)							(PN16)			
(DN40)							(PN25)			
(DN50)							(PN40)			
(DN80)					(PN64)					
					(PN100)					
					others on request		others on request	4) Max length 30m, specify length in meter EG. CP1.0 = CP with 1m		

1) Restricted to maximum temperature 200 °C, not available with option SR2, SR4 2) The DIN-flange facing depends on nominal size and nominal pressure  
 3) Only 1/4" and 1/2" NPT, max. Rating/temp. limit: 200 psi / 14 bar at 74 °F / 23 °C; 125 psi / 8.6 bar at 125 °F / 52 °C; 80 psi / 5.5 bar at 150 °F / 65 °C  
 5) Not for (SP), (PP) & (V)

**How to order**

Process connection	Type	Diaphragm capsule material	Bottom housing material	Instrument connection	Rating	Flange facing	Filling fluid	Option
15	DF21	S	S	14T	300	RF	CK	CA1.0