



Parto Sahand Ara

DFC DIAPHRAGM

DIAPHRAGM FLANGE CONNECTION



www.arainstrument.com



Diaphragm Seal Type DFC

Applications

- Aggressive, contaminated or hot media
- Chemical and petrochemical industries
- Oil and gas industry



Description

Diaphragm seals are used for the protection of pressure measuring instruments in applications with difficult media. In diaphragm seal systems, the diaphragm of the diaphragm seal effects the separation of the instrument and the medium.

The pressure is transmitted to the measuring instrument via the system fill fluid which is inside the diaphragm seal system.

The model DFC diaphragm seal is ideally suited for applications with small process connections. Due to the internal diaphragm low measuring ranges can be realised.

- Assembly of the diaphragm seal to the measuring instrument may be made via a direct connection, for high temperatures via a cooling element or via a flexible capillary



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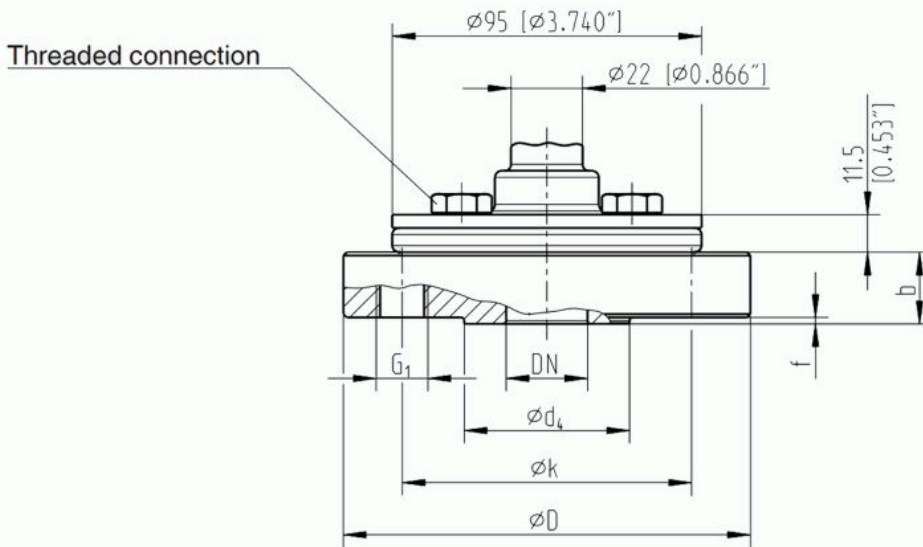
Material combinations

Upper body of diaphragm seal	Wetted parts	Maximum permissible process temperature in °C [°F]
Stainless steel 1.4404 (316L)	Stainless steel 1.4404 / 1.4435 (316L), standard version	400 [752]
	Stainless steel 1.4539 (904L)	
	Stainless steel 1.4541 (321)	
	Stainless steel 1.4571 (316Ti)	
	ECTFE coating	150 [302]
	PFA (perfluoroalkoxy) coating, FDA	260 [500]
	PFA (perfluoroalkoxy) coating, antistatic	
	Gold plating	400 [752]
	Wikaramic [®] coating	
	Hastelloy C22 (2.4602)	260 [500]
	Hastelloy C276 (2.4819)	400 [752]
	Inconel 600 (2.4816)	
	Inconel 625 (2.4856)	
	Incoloy 825 (2.4858)	
	Monel 400 (2.4360)	
	Nickel 200 (2.4060, 2.4066)	
	Titanium grade 2 (3.7035)	150 [302]
Titanium grade 11 (3.7225)		
Tantalum	300 [572]	
Stainless steel 1.4435 (316L)	Stainless steel 1.4435 (316L)	400 [752]
Stainless steel 1.4539 (904L)	Stainless steel 1.4539 (904L)	
Stainless steel 1.4541 (321)	Stainless steel 1.4541 (321)	
Stainless steel 1.4571 (316Ti)	Stainless steel 1.4571 (316Ti)	
Duplex 2205 (1.4462)	Duplex 2205 (1.4462)	300 [572]
Superduplex 2507 (1.4410)	Superduplex 2507 (1.4410)	
Hastelloy C22 (2.4602)	Hastelloy C22 (2.4602)	400 [752]
Hastelloy C276 (2.4819)	Hastelloy C276 (2.4819)	
Inconel 600 (2.4816)	Inconel 600 (2.4816)	
Inconel 625 (2.4856)	Inconel 625 (2.4856)	
Incoloy 825 (2.4558)	Incoloy 825 (2.4858)	
Monel 400 (2.4360)	Monel 400 (2.4360)	
Nickel 200 (2.4060, 2.4066)	Nickel 200 (2.4060, 2.4066)	
Titanium grade 2 (3.7035)	Titanium grade 2 (3.7035)	
Titanium grade 7 (3.7235)	Titanium grade 11 (3.7225)	



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Dimensions in mm [in]



Legend:
 Mb Effective diameter of diaphragm
 D Outer diameter of diaphragm seal
 b Flange thickness
 d₄ Sealing face diameter
 f Height of raised face
 k Pitch circle diameter
 G₁ Thread
 x Number of screws

DN	Class	Dimensions in mm [in]						G1	Weight in kg [lbs]
		Mb	D	b	d ₄	f	k		
½"	150	52 [2.047]	95 [3.74]	28 [1.102]	34.9 [1.374]	2 [0.079]	60.3 [2.374]	½" UNC	1.6 [3.5]
	300			66.7 [2.626]					
	600			32 [1.26]		7 [0.276]	82.6 [3.252]	¾" UNC	1.8 [4]
	1,500			120 [4.724]					
¾"	150	52 [2.047]	100 [3.937]	28 [1.102]	42.9 [1.689]	2 [0.079]	69.9 [2.752]	½" UNC	1.7 [3.7]
	300			115 [4.528]			25 [0.984]		
	600			25 [0.984]		7 [0.276]	88.9 [3.5]	¾" UNC	2.2 [4.8]
	1,500			130 [5.118]					
1"	150	52 [2.047]	110 [4.331]	22 [0.866]	50.8 [2]	2 [0.079]	79.4 [3.13]	½" UNC	1.6 [3.5]
	300			125 [4.921]			24.5 [0.965]		
	600			7 [0.276]		101.6 [4]		¾" UNC	2.3 [5]
	1,500			150 [5.905]			36 [1.417]		

DN	PN	Dimensions in mm [in]						G1	Weight in kg [lbs]	
		Mb	D	b	d ₄	f	k			
15	10/40	52 [2.047]	95 [3.74]	28 [1.102]	45 [1.772]	2 [0.079]	65 [2.559]	M12	1.6 [3.5]	
	63/100			105 [4.134]			25 [0.984]	75 [2.953]	M12	2.0 [4.4]
	160			130 [5.118]			26 [1.024]	90 [3.543]	M12	3.2 [7]
	250									
20	10/40	52 [2.047]	105 [4.134]	25 [0.984]	58 [2.283]	2 [0.079]	75 [2.953]	M12	1.9 [4.2]	
25	10/40	52 [2.047]	115 [4.528]	22 [0.866]	68 [2.677]	2 [0.079]	85 [3.346]	M12	2.1 [4.6]	
	63/100			140 [5.512]			24 [0.945]			100 [3.937]
	160			150 [5.905]			28 [1.102]	105 [4.134]	M12	3.6 [8]
	250									



Diaphragm Seal Type DFC

Order Code

DFC Configuration		
1	Process Connection	
	15	1/2" DN15
	20	3/4" DN40
	25	1" DN25
	40	1½" DN40
	50	2" DN100
	*	Other - please specify
2	Nominal Pressure Rating DIN	
	C1	Class 150
	C2	Class 300
	C3	Class 600
	C4	Class 900
	C5	Class 1500
	C6	Class 2500
	P1	PN 10
	P2	PN 16
	P3	PN 40
	P4	PN 63
	P5	PN 100
	P6	PN 160
	*	Other - please specify
	3	Sealing Face
RF		RF
RJF		RJF
*		Other - please specify
5	Lower Housing Material	
	S	316L SS (1.4435)
	H	Hastelloy C276 (2.4819)
	I	Inconel 600 (2.4816)
	T	Tantalum
	M	Monel 400 (2.4360)
	*	Other - please specify

6	Diaphragm Material	
	S	316L SS (1.4435)
	H	Hastelloy C276 (2.4819)
	I	Inconel 600 (2.4816)
	P	PTFE
	T	Tantalum
	G	Gold
	M	Monel 400 (2.4360)
*	Other - please specify	
7	Connection to Pressure Instrument	
	1	1/4" NPT-female
	2	1/2" NPT-female
	3	Axial weld-in connection
	*	Other - please specify
8	Accessory	
	1	Capillary
	2	Cooling
	3	Flush Ring
	4	PTFE coated
	5	N/A
*	Other - please specify	

Additional order details _____

DFC - -

1 2 3 4 5 6 7 8



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