



Parto Sahand Ara

# DTC DIAPHRAGM

DIAPHRAGM THREAD CONNECTION



[www.arainstrument.com](http://www.arainstrument.com)



## Diaphragm Seal Type DTC

### Applications

- Process industry
- Aggressive, hot, corrosive, hazardous or hot media



### Description

The ARA DTC diaphragm seal with threaded connection in threaded design is suitable for versatile application areas.

- A replacement of the lower body is possible without modifications on the diaphragm seal system.
- Pressure range : 0 ... 250 bar [0 ... 3,600 psi] or all other equivalent vacuum or combined pressure and vacuum ranges.
- Connection to the measuring instrument :  
Axial adapter  
Axial adapter with G ½, G ¼, ½ NPT or ¼ NPT (female)
- Type of mounting :  
Direct mounting  
Capillary or Cooling element



## Diaphragm Seal Type DTC

### 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)	260 [500]
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)	



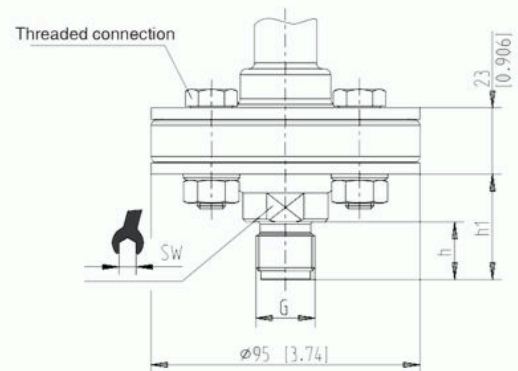


## Diaphragm Seal Type DTC

### Dimensions in mm [in]

#### Male thread

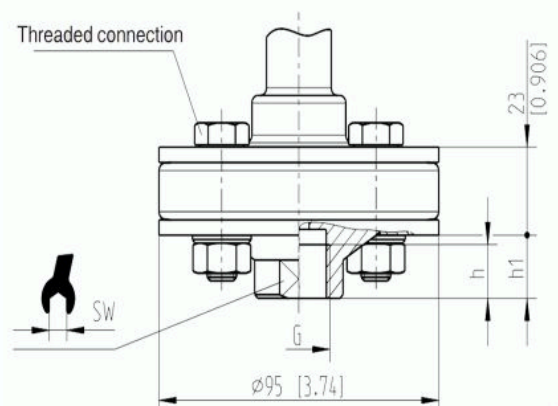
G	Dimensions in mm [in]			
	h	h <sub>1</sub>	Mb	SW
G ¼ A	32 [1.26]	29.5 [1.161]	52 [2.047]	27 [1.063]
G ⅜ A	16 [0.63]	32.5 [1.28]		
G ½ A	20 [0.787]	36.5 [1.437]		41 [1.614]
G ¾ A		43 [1.693]		
G 1 A	28 [1.102]	51 [2.008]		27 [1.063]
G 1 ½ A		58.5 [2.303]		
¼ NPT	13 [0.512]	29.5 [1.161]		41 [1.614]
⅜ NPT	15 [0.591]	31.5 [1.24]		
½ NPT	19 [0.748]	35.5 [1.398]		27 [1.063]
¾ NPT	20 [0.787]	36.5 [1.437]		
1 NPT	25 [0.984]	48 [1.98]		41 [1.614]
1 ½ NPT	26 [1.024]	56.5 [2.224]		
M20 x 1.5	20 [0.787]	36.5 [1.437]		27 [1.063]
R ¼	15 [0.591]	31.5 [1.28]		
R ⅜	18 [0.709]	34.5 [1.358]		41 [1.614]
R ½	19 [0.748]	35.5 [1.398]		
R ¾	20 [0.787]	36.5 [1.437]	27 [1.063]	



**Threaded connections:**  
 4x to 100 bar  
 8x 101 ... 250 bar  
 8x with metal sealing to 250 bar  
**Legend:**  
 Mb Diameter of diaphragm  
 G Thread  
 SW Spanner width

#### Female thread

G	Dimensions in mm [in]				
	h	h <sub>1</sub>	Mb	SW	
G ¼	10 [0.394]	16.5 [0.65]	52 [2.047]	27 [1.063]	
G ⅜	12 [0.472]				
G ½	14 [0.551]				
G ¾	16 [0.63]	22.5 [0.886]		32 [1.26]	
G 1	18 [0.709]	24.5 [0.965]		41 [1.614]	
¼ NPT	15.5 [0.61]	16.5 [0.65]		27 [1.063]	
⅜ NPT		20.5 [0.807]		32 [1.26]	
½ NPT					41 [1.614]
¾ NPT					
1 NPT	28.5 [1.122]	41 [1.614]			
M20 x 1.5	15.5 [0.61]	18.5 [0.728]		27 [1.063]	



**Threaded connections:**  
 4x to 100 bar  
 8x 101 ... 250 bar  
 8x with metal sealing to 250 bar  
**Legend:**  
 Mb Diameter of diaphragm  
 G Thread  
 SW Spanner width



## Diaphragm Seal Type DTC

### Order Code

DTC Configuration	
1	<b>Process Connection</b>
	08F 1/4" NPT female
	15F 1/2" NPT female
	20F 3/4" NPT female
	25F 1" NPT female
	08M 1/4" NPT male
	15M 1/2" NPT male
	20M 3/4" NPT male
	25M 1" NPT male
	* Other - please specify
2	<b>Nominal Pressure Rating</b>
	L 1,500 psi MWP (std - 4 bolts)
	H 3,625 psi MWP (special - 8 bolts)
* Other - please specify	
3	<b>Diaphragm Material</b>
	S 316L SS (1.4435)
	H Hastelloy C276 (2.4819)
	I Inconel 600 (2.4816 )
	P PTFE
	T Tantalum
	M Monel 400 (2.4360)
	* Other - please specify

4	<b>Lower Housing Material</b>
	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	
5	<b>Connection to Pressure Instrument</b>
	1 1/4" NPT-female
	2 1/2" NPT-female
	3 Axial weld-in connection
	* Other - please specify
6	<b>Accessory</b>
	1 Capillary
	2 Cooling
	3 PTFE coated
	4 N/A
* Other - please specify	

Additional order details \_\_\_\_\_

DTC - 

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