

Main Features

- Wide range of threaded process connections
- Internal welded diaphragm
- Lower part exchangeable
- Option : exotic materials for wetted parts
- Option : with cleaning ring

Applications

- Oil & Gas / Chemical
- Water & Waste water
- Energy
- Transportation & Logistics
- Machinery

Technical Data

This universal chemical seals with threaded process connection are used to protect pressure gauges from high temperatures, aggressive, crystalizing or corrosive fluids.

Chemical seals can be mounted to mechanical pressure gauges, switches or transmitters directly or with a flexible capillary.

The filling fluid of the measuring system has to be chosen compatible to the application.

A wide choice of materials for the wetted parts allow the user to adapt the seal to many different applications and process fluids.

The lower part of the product family DT can be exchanged very easy without new calibration of the filled system.

This allows the user to adapt the system to different process connections.

Upper parts alone are supplied with screws and gasket.

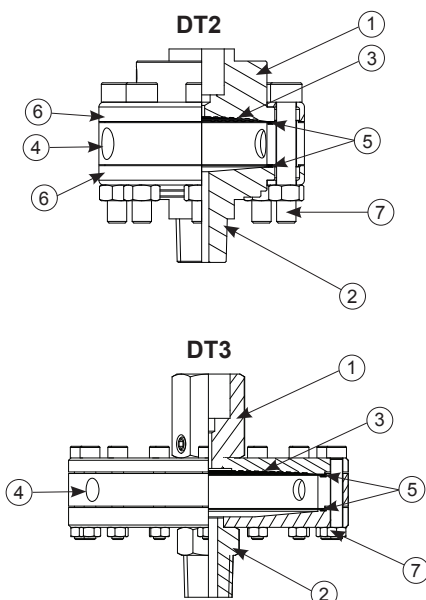
Pressure ranges 0 ... 160 mbar to 0 ... 1000 bar
(see ordering details)

Wetted parts Stainless steel 1.4404 (AISI 316L)
Stainless steel 1.4435 (AISI 316L)
Option : exotic materials or coatings
(see ordering details)

Cleaning ring (option) With 1 flushing port 1/8 NPT female
Only DT1, DT2, DT3

Gaskets DT1, DT2, DT3 : PTFE (max. 200°C)
DT5 : stainless steel 1.4404 (max. 200°C)
DT8 : graphite (max. 400°C)

Materials



	N°	DT1	DT2	DT3	DT5	DT8
Upper part	①	1.4404 (316L)				
Lower part	②	1.4404 (316L) ¹⁾				
Diaphragm	③	1.4435 (316L) ¹⁾				
Cleaning ring	④	1.4404 (316L) ¹⁾			-	-
Gaskets	⑤	PTFE	PTFE	PTFE	1.4404	Graphite
Fixing flanges ³⁾	⑥	1.4301 (304) ²⁾		-	Carbon steel	1.4404 (316L)
Bolts/Nuts	⑦	1.4301 (304) ²⁾			Carbon steel	1.4404 (316L)

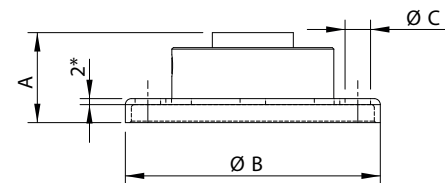
¹⁾ Others materials see ordering details on page 3

²⁾ 1.4404 (316L) with option 1999

³⁾ Stamped parts for DT1 and DT2, turned parts for DT5 and DT8

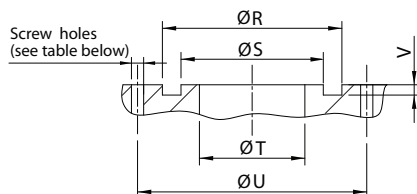
Dimensions - Types of mounting

Upper part

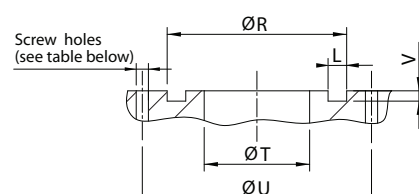


* Only DT1/DT2

Dimensions of counter flange



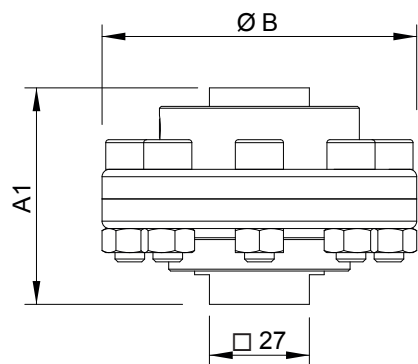
DT1/DT2/DT3/DT5



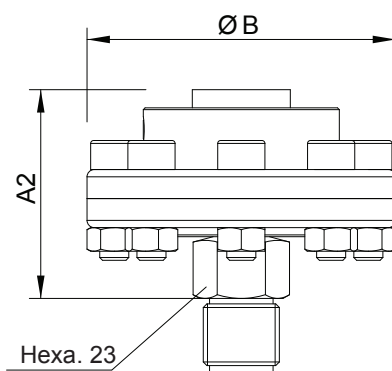
DT8

	Ø B	A	Ø C	Weight kg	Ø R	Ø S 0 / -0.1	L	V	Ø T 0 / -0.2	Ø U ±0.1	Screws	Gaskets
DT1	85	38	10.5	0.460	50.1 -0.05 / +0	46	-	0.6 -0 / +0.1	45	65	8 x M10	49.8 x 45.8 x 1 (PTFE)
DT2	85	30	8.5	0.500	59.1 -0.05 / +0	55	-	0.6 -0 / +0.1	54	70	8 x M8	58.8 x 54.8 x 1 (PTFE)
DT3	120	43	5.5	0.660	101.1 -0 / +0.2	96	-	0.6 -0 / +0.1	94	110	16 x M5	101 x 97 x 1 (PTFE)
DT5	85	43	10.5	0.800	40.1 -0.05 / +0	36	-	0.8 -0 / +0.1	35	65	8 x M10	40 x 36 x 1 (1.4404)
DT8	85	43	10.5	0.790	50.5 -0 / +0.05	-	2.25 -0 / +0.05	2.5 -0.1 / +0	45	65	8 x M10	50.5 x 46 x 3.3 (graphite)

Upper part + lower part



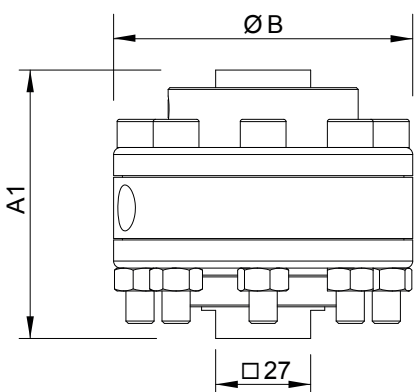
Female process connection



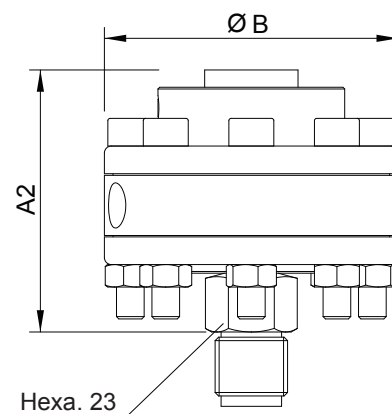
Male process connection

	A1	A2	Ø B	Weight kg
DT1	67	66	85	1.20
DT2	59	58	85	1.10
DT3	73	64	120	1.40
DT5	72	73	85	1.75
DT8	72	73	85	1.70

Upper part + cleaning ring + lower part



Female process connection



Male process connection

	A1	A2	Ø B	Weight kg
DT1	82	81	85	1.60
DT2	77	76	85	1.60
DT3	88	78	120	1.90

Ordering details DTx

Model	Min. range ¹⁾	P. max	DT3	DT2	DT1	DT8	DT5
For low pressure	-1...0 bar / 0...160 mbar	25 bar					
For normal pressure	-1...3 bar / 0... 1 bar	40 bar					
For medium high pressure	-1...9 bar / 0... 10 bar	160 bar					
For high pressure	-1...39 bar / 0... 40 bar	400 bar					
For very high pressure	0...160 bar	1000 bar					
Upper part material							
Stainless steel 1.4404 (316L)			2				
Instrument connection							
G½ female				L			
G¼ female ²⁾				H			
½ NPT female				N			
¼ NPT female ²⁾				8			
Diaphragm material							
Stainless steel 316L (1.4435)				2			
Uranus B6 (1.4539)				3			
Hastelloy B (2.4617)				5			
Hastelloy C276 (2.4819)				6			
Tantalum ³⁾				7			
Monel 400 (2.4360)				9			
Diaphragm coating							
No coating				0			
PTFE 20 µm ⁴⁾				1			
PTFE 250 µm adhesive liner ^{5) 6)}				2			
HALAR 200 µm				4			
Gold 15 µm				7			
Cleaning ring material ⁷⁾							
Without cleaning ring				0			
Stainless steel 316L (1.4404)				2			
Uranus B6 (1.4539)				3			
Hastelloy B (2.4617)				5			
Hastelloy C276 (2.4819)				6			
Monel 400 (2.4360)				9			
Lower part material							
Without lower part				0			
Stainless steel 316L (1.4404)				2			
Uranus B6 (1.4539)				3			
Hastelloy B (2.4617)				5			
Hastelloy C276 (2.4819)				6			
Monel 400 (2.4360)				9			
PVC	max. 10 bar/40°C			C			
PVDF	max. 10 bar/80°C			D			
PPH	max. 10 bar/80°C			E			
PTFE	max. 10 bar/80°C			F			
Process connection							
Without lower part				0			
Male thread	G½			3			
	½ NPT ⁸⁾			6			
	G¾ ⁹⁾			J			
	G¼ ²⁾			2			
	¼ NPT ^{2) 8)}			5			
Female thread	G½ ⁸⁾			L			
	½ NPT ⁸⁾			N			
	G¾ ^{2) 8)}			H			
	¼ NPT ^{2) 8)}			8			
Lower part coating ¹⁰⁾							
No coating				0			
PTFE 20 µm				1			
PTFE 2 mm	max. 10 bar/100°C			3			
HALAR 200 µm				4			

¹⁾ Valid for assembly with 100 mm pressure gauges and temperature between -20 and +70°C. For other conditions, the minimum pressure ranges may be different. Please contact Baumer

²⁾ Max. 600 bar

³⁾ No diaphragm coatings on Tantalum diaphragm available

⁴⁾ Thin anti-sticking coating, limited corrosion resistance

⁵⁾ Not for vacuum and compound pressure ranges

⁶⁾ Only available for models DT1, DT2 and DT3

⁷⁾ Cleaning rings only available for models DT1, DT2 and DT3

⁸⁾ Not available with coating on the lower part

⁹⁾ Max. 800 bar

¹⁰⁾ No lower part coating available with cleaning ring