

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, crystallizing 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.

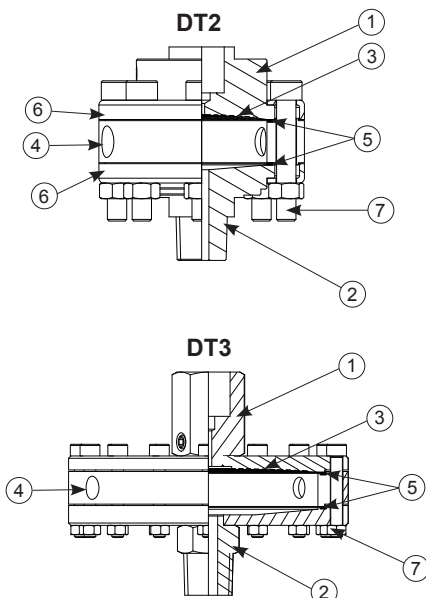
Pressure ranges 0 ... 160 mbar to 0 ... 1000 bar
(see ordering details)

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) |

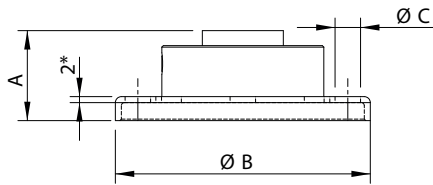
¹⁾ Others materials see ordering details on page 3

²⁾ 1.4404 (316L) with option 1999

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

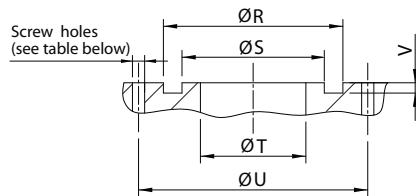
Dimensions - Types of mounting

Upper part

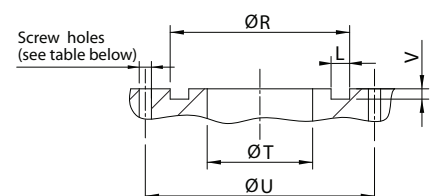


* Only DT1/DT2

Dimensions of counter flange



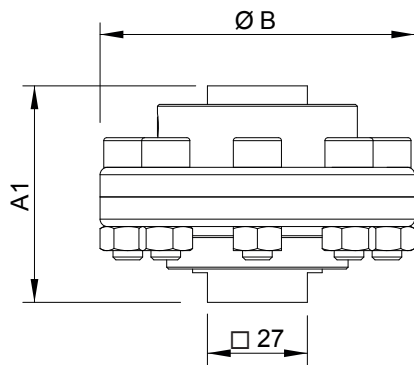
DT1/DT2/DT3/DT5



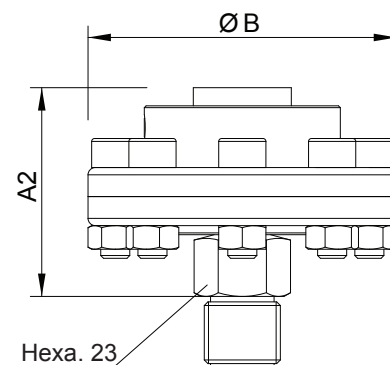
DT8

| | 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



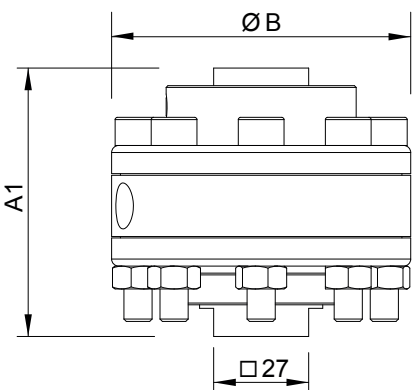
Female process connection



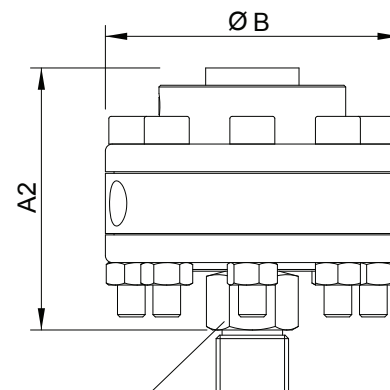
Male process connection

| | 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 | | | | | | | | | | | | | | | | | | |
|---|---------------------------------|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| 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) | | | | | | | | | | | | | | | | | | | | |
| 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 |
| | G¼ ^{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