



### Features

- Flush-mounted separating diaphragm of stainless steel, welded by laser
- Volume optimized diaphragm base
- Dead-zone free design
- Connection of measuring instrument:
  - directly welded
  - directly screwed
  - with temperature decoupler
  - with capillary

### Options

- Material certificate acc. to DIN EN 10204-3.1
- Hygienic design with advanced surface quality
- With reduced temperature effect and reinforced diaphragm (LTC-technology)
- Special materials upon request

### Application area

- Food industry
- Pharmaceutical industry
- Biotechnology

### Application

Suitable for mounting to bourdon tube pressure gauges and pressure transmitters. The diaphragm seal is used mainly for dead-zone free measuring.

### Technical Data

#### Process connections

sanitary connections design with coupling nut or threaded coupling

- DIN 11851
- IDF
- SMS

#### Diaphragm seal material

basic body:  
st. steel mat. no. 1.4435 (316L)  
coupling nut:  
st. steel mat. no. 1.4301 (304)  
connection of measuring instrument:  
st. steel mat. no. 1.4301 (304)

**Nominal pressure/nominal widths**  
see table

#### Separating diaphragm

standard material: st. steel mat. no. 1.4435 (316L), further materials upon request

#### Diaphragm outline

standard Sinus-type, option: with reduced temperature effect and reinforced diaphragm (LTC-technology)

#### Measuring instrument connection

- directly welded/screwed
- with temperature decoupler
- with capillary

see order code  
material stainless steel

#### Process temperature

dependent on measuring system, diaphragm seal filling liquid and installation.

#### Diaphragm seal filling liquid

see data sheet D5-003.  
Standard according to order code

#### Hygienic design

surface formation of wetted parts as per EHEDG guidelines  
( $R_a \leq 0.8 \mu\text{m}$ )

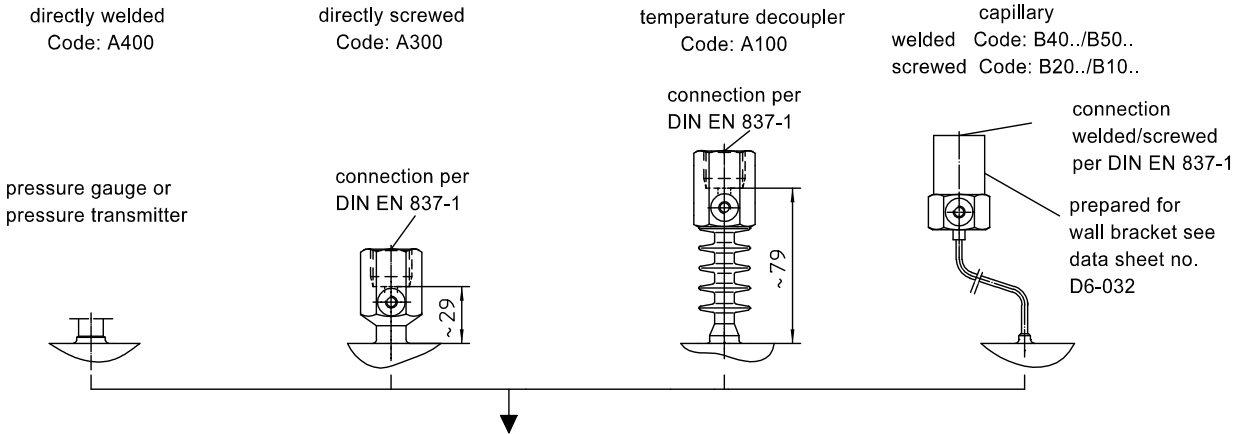
#### Installation instructions

see operating instructions BTA-062

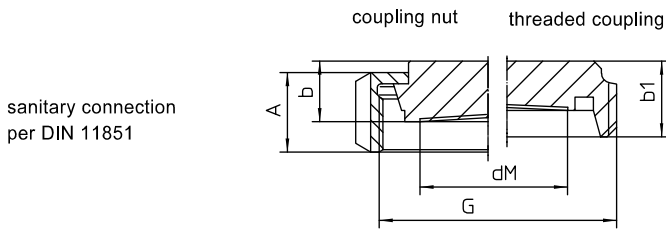
#### Weights

with measuring instrument connection  
G 1/2 see table

**Measuring instrument connection**

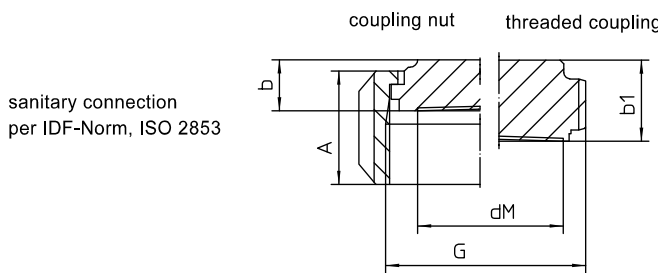


**Dimensions**



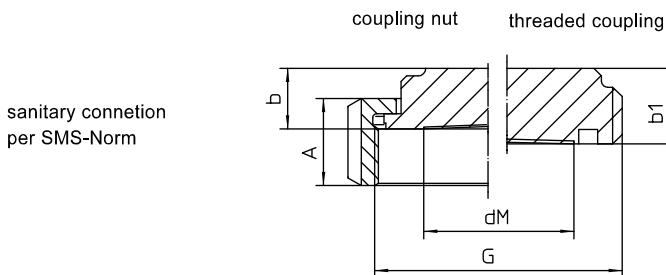
sanitary pipe connection per DIN 11851  
for pipes per DIN 11850

DN	PN	dM	G	A	b	b1	weight approx. (kg)
25	40	27	Rd. 52x1/6"	21	16	*	0.3
32	40	34	Rd. 58x1/6"	21	16	20	0.4
40	40	40	Rd. 65x1/6"	21	16	20	0.5
50	25	51	Rd. 78x1/6"	22	17	20	0.6
65	25	65	Rd. 95x1/6"	25	18	22	0.9
80	25	80	Rd. 110x1/4"	29	18	26	1.2
100	25	100	Rd. 130x1/4"	31	21	26	1.6



sanitary pipe connection per IDF-Norm, ISO 2853  
for pipes per BS 4825 Part 3 and O.D. Tube

DN mm	inch	PN	dM	G (IDF-thread)	A	b	b1	weight approx. (kg)
25	1"	40	21	1"	30	21	20	0.3
38	1 1/2"	40	34	1 1/2"	30	13.5	20	0.3
51	2"	25	46	2"	30	15	20	0.4
63.5	2 1/2"	25	54	2 1/2"	30	20	20	0.6
76.1	3"	25	65	3"	30	22	20	0.6



sanitary pipe connection per SMS  
for pipes per BS 4825 Part 3 and O.D. Tube

DN	PN	dM	G	A	b	b1	weight approx. (kg)
1"	40	21	Rd. 40x1/6"	19	16	16	0.3
1 1/2"	40	34	Rd. 60x1/6"	23	16	20	0.4
2"	25	46	Rd. 70x1/6"	24	16	20	0.5
2 1/2"	25	54	Rd. 85x1/6"	28	16	24	0.6
3"	25	65	Rd. 98x1/6"	30	20	24	0.9

**Order Details** - please give additional specifications for models not listed -**Diaphragm seal for food/pharmaceutical/biotechnology**

design <sup>1</sup>		with coupling nut	nominal width	· DN 25	DL2100		
design <sup>1</sup>	DIN 11851	with coupling nut	nominal width	· DN 32	DL2200		
				· DN 40	DL2300		
				· DN 50	DL2400		
				· DN 65	DL2500		
				· DN 80	DL2600		
				· DN 100	DL2700		
		with threaded coupling	nominal width	· DN 25	DL1100		
				· DN 32	DL1200		
				· DN 40	DL1300		
				· DN 50	DL1400		
				· DN 65	DL1500		
				· DN 80	DL1600		
	IDF	with coupling nut	nominal width	· 1"	DL7100		
				· 1 1/2"	DL7200		
				· 2"	DL7300		
				· 2 1/2"	DL7400		
				· 3"	DL7500		
				with threaded coupling	nominal width	· 1"	DL6100
		· 1 1/2"	DL6200				
		· 2"	DL6300				
		· 2 1/2"	DL6400				
		· 3"	DL6500				
		SMS	with coupling nut			nominal width	· 1"
				· 1 1/2"	DL7210		
· 2"	DL7310						
· 2 1/2"	DL7410						
· 3"	DL7510						
with threaded coupling	nominal width			· 1"	DL6110		
			· 1 1/2"	DL6210			
			· 2"	DL6310			
			· 2 1/2"	DL6410			
			· 3"	DL6510			
			surface roughness	· standard			
	· hygienic version as per EHEDG guidelines					HY	
connection of measuring instrument	· directly	· welded			A400 .		
		· screwed G 1/2			A300 .		
	· with temperature decoupler A100	· screwed G 1/2			A100 .		
	· with capillary	· welded			B40 . .		
		· screwed G 1/2			B20 . .		
	· with capillary and stainless steel protective tube	· welded			B50 . .		
· screwed G 1/2				B10 . .			
material wetted parts	· stainless steel mat.-no. 1.4435 (316L)				7		
	· stainless steel mat.-no. 1.4435 (316L), LTC membrane technology <sup>4</sup>				7L		
system filling <sup>2</sup>	filling liquid	temperature range <sup>3</sup>					
	· foodstuff oil FD1 (standard)	+10...+140 °C			L22		
	· foodstuff oil FD1, pls specify temperature, max.	-40...+200 °C			L23		
	· glycerine/water FGW	-20...+120 °C			L15		
<b>additional features (to be indicated in case of need, only)</b>							
material certificate acc. to DIN EN 10204-3.1, wetted parts					W1020		
<b>order code (example):</b>					DL2300	A4007	L22

capillary length	
length m	order-code
1	11
1.6	12
2.5	13
4	14
5	21
6	15
7	23
8	16
10	17
others	9

<sup>1</sup> other designs upon request<sup>2</sup> Please check data sheet D5-003 for further information.

Please state temperature range to allow an accurate calculation of the system.

<sup>3</sup> max. temperature of liquid filling for abs. pressure > 1 bar<sup>4</sup> for DN 50, DN 65, DN 80, 2 1/2" and 3"