



### Features

- Flush-mounted separating diaphragm of stainless steel, welded by laser
- Volume optimized diaphragm base
- Available with loose and fixed clamping flange
- 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 HYGIENIC Tubus is used mainly for dead-zone free measuring.

### Technical Data

#### Process connection

HYGIENIC Tubus Ø 76 mm with

- loose clamping flange, PN 16
- fixed clamping flange, PN 16

#### Diaphragm seal material

basic body:  
 st. steel mat. no. 1.4435 (316L) or Hastelloy C276  
 measuring instrument connection:  
 st. steel mat.no. 1.4301 (304)  
 clamping flange: st. steel mat. no. 1.4404 (316L)  
 gasket: EPDM, FDA listed

#### Separating diaphragm

material st. steel mat. no. 1.4435 (316L) or Hastelloy C 276, 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.

#### Temperature influence

Influence of process temperature to meas. system (when pressure transmitter is mounted):

- standard (Sinus-type): 0.8 mbar/10K
- LTC-technology: <0.4 mbar/10K

#### 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  
 $(R_a \leq 0.8 \mu\text{m})$

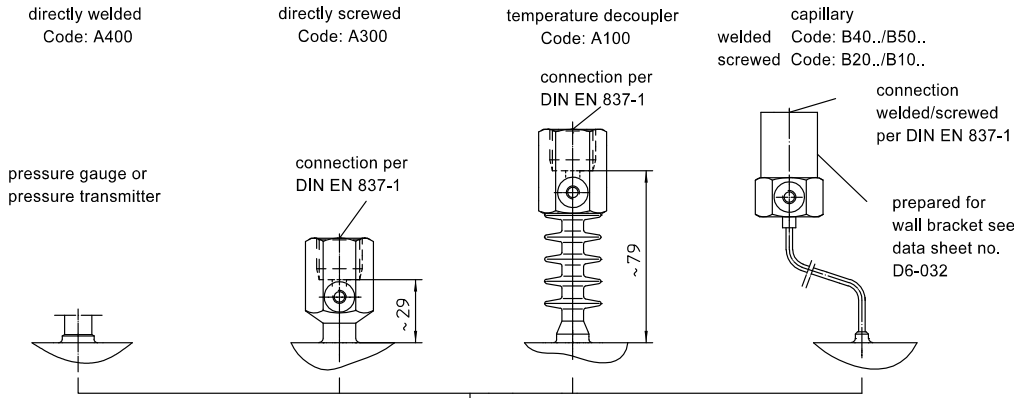
#### Installation instructions

see operating instructions BTA-062

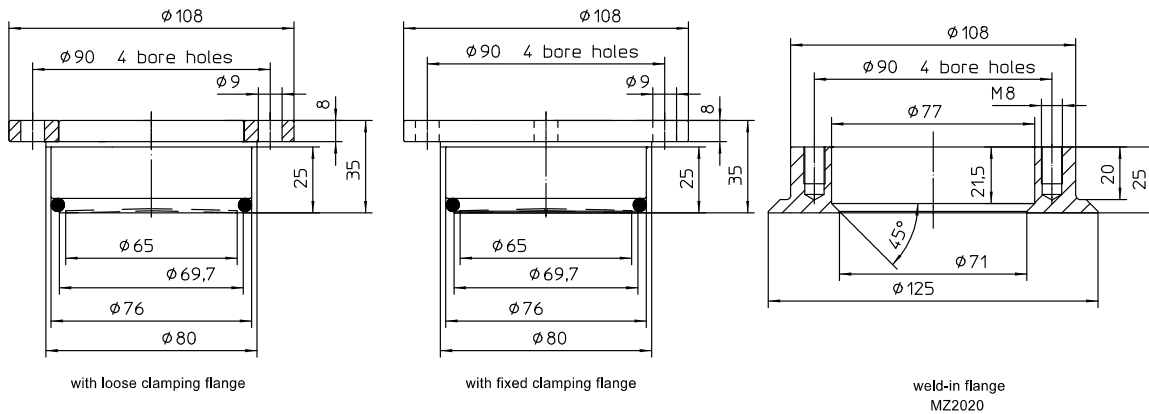
#### Weights

with measuring instrument connection approx. 0.8 kg

**Measuring instrument connection**



**Dimensions**



**Order Details** - please give additional specifications for models not listed -

Diaphragm seal HYGIENIC Tubus with clamping flange				capillary length		
design	HYGIENIC Tubus Ø 76 mm		DL8120	length m	order-code	
		· with loose clamping flange	DL8120	1	11	
		· with fixed clamping flange	DL8130	1.6	12	
surface roughness	· standard			2.5	13	
	· hygienic version as per EHEDG guidelines		HY	4	14	
basic body material	· stainless steel mat.no. 1.4435 (316L)		E7	5	21	
	· Hastelloy C276		E3	6	15	
	· variant		E9	7	23	
diaphragm material	· stainless steel mat.-no. 1.4435 (316L)		G7	8	16	
	· stainless steel mat.-no. 1.4435 (316L), LTC membrane technology		G7L	10	17	
	· Hastelloy C276		G3	others	9	
gasket	· EPDM, FDA listed		H2			
	· variant		H9			
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 ..			
system filling <sup>1</sup>	filling liquid		temperature range <sup>2</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	
additional features (to be indicated in case of need, only)						
material certificate acc. to DIN EN 10204- 3.1, wetted parts					W1020	
diaphragm seal electropolished					W4035	
order code (example):			DL8120	HY	E7	
accessories			G7	H2	A100	
weld-in flange, stainless steel mat.-no. 1.4435 (316L), hygienic design			L22			
hexagon screw M8x20 DIN 933, stainless steel mat.-no. 1.4301 (304)					MZ2020-E7	
					MZ8100-A11	

<sup>1</sup> Please check data sheet D5-003 for further information.  
 Please state temperature range to allow an accurate calculation of the system.  
<sup>2</sup> max. temperature of liquid filling for abs. pressure > 1 bar