



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 angle adapter
 - 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 with DRD-connection is used mainly for dead-zone free pressure and level measuring.

Technical Data

Process connection

DRD-connection

Diaphragm seal material

basic body: st. steel

Nominal width/nominal pressure

DN 50 PN 40

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 angle adapter
 - 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
($R_a \leq 0.8 \mu\text{m}$)

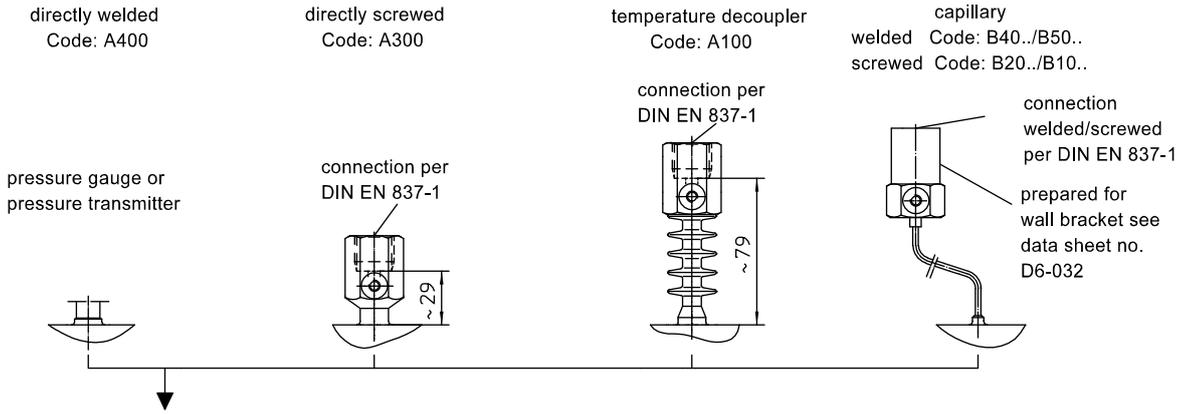
Installation instructions

see operating instructions BTA-062

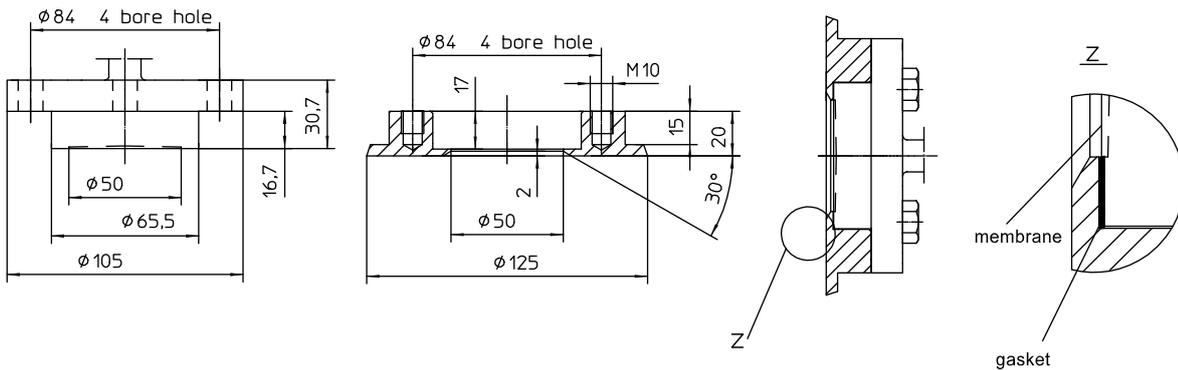
Weights

with measuring instrument connection
G 1/2 approx. 1.5 kg

Measuring instrument connection



Dimensions



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

Diaphragm seal for food/pharmaceutical/biotechnology DRD-connection			
nominal width/pressure	DN 50 / PN 40	DD4100	
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 angle adapter		A702 .
	· with capillary	· welded	B40 ..
		· screwed G 1/2	B20 ..
· with capillary and stainless steel protective tube	· welded	B50 ..	
	· screwed G 1/2	B10 ..	
wetted parts	· stainless steel mat. no. 1.4435 (316L)		7
	· stainless steel mat. no. 1.4435 (316L), LTC membrane technology		7L
system filling ¹	filling liquid	temperature range ²	
	· 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

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

additional features (to be indicated in case of need, only)

material certificate acc. to DIN EN 10204- 3.1, wetted parts W1020

Order code (example): DD4100 A4007 L22

accessories

weld-in flange, for DRD-connection, stainless steel mat.-no. 1.4404 (316L)	MZ2010
weld-in flange, for DRD-connection, stainless steel mat.-no. 1.4404 (316L), HYGIENIC	MZ2010-HY
sealing washers, for DRD-connection, material: PTFE gasket fiber-glass reinforced 65x50x1	MS2010-A10
hexagon screw M 10 x 25 DIN 933, material stainless steel mat.-no. 1.4571 (316Ti)	MZ8100-A10

¹ Please check data sheet D5-003 for further information.

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

² max. temperature of liquid filling for abs. pressure > 1 bar abs