



#### Features

- Flush-mounted separating diaphragm of stainless steel, welded by laser
- Volume optimized diaphragm base
- 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
- 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 clamp connection is used mainly for dead-zone free measuring.

#### Technical Data

##### Process connections

clamp connection per ISO 2852, DIN 32676 and Tri-Clamp.  
Other types of connections such as aseptic connection per Südmo upon request

##### Diaphragm seal material

basic body: stainless steel mat.-no. 1.4435 (316L)  
Gasket is not included.

##### Separating diaphragm

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

##### 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

with clamp connections operation outside the allowed nominal pressure rating is only possible with suitable clamps. In this case, note DIN 32676 for stipulations on heat resistance. For further information see operating instructions BTA-062.

##### Weights

with measuring instrument connection G 1/2 see table

**Measuring instrument connection**

directly welded  
Code: A400

directly screwed  
Code: A300

temperature decoupler  
Code: A100

capillary  
welded Code: B40../B50..  
screwed Code: B20../B10..

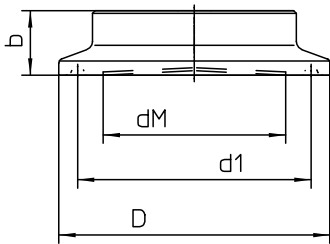
pressure gauge or  
pressure transmitter

connection per  
DIN EN 837-1

connection per  
DIN EN 837-1

connection  
welded/screwed  
per DIN EN 837-1  
prepared for  
wall bracket see  
data sheet no.  
D6-032

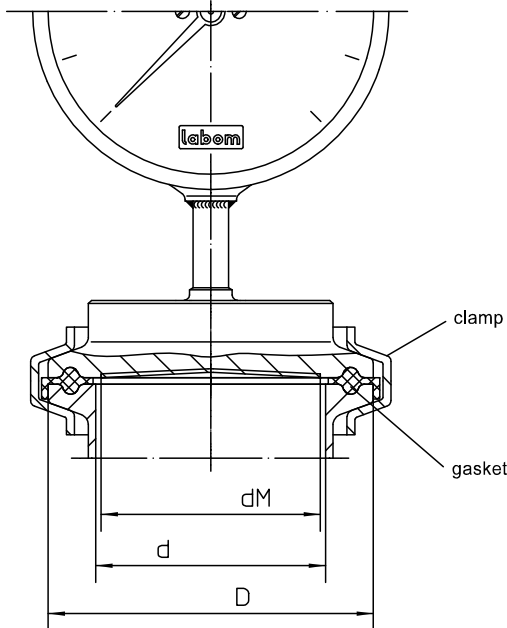
**Dimensions**



**Diaphragm seal for clamp connection per ISO 2852** for pipes per BS 4825 Part 3 and O.D. Tube (suitable for pipe per ASME-BPE 1997)

DN	PN	D	dM Ø	d1	b	pipe internal Ø d	weight approx. kg	
1"	25	16	50.5	22.6	43.5	14	22.2	0.3
1 1/2"	38	16	50.5	34	43.5	12	34.8	0.3
2"	51	16	64	46	56.5	14	47.5	0.4
2 1/2"	63.5	16	77.5	51	70.5	14	60.3	0.5
3"	76.1	10	91	65	83.5	14	72.9	0.8

Mounting example



**Tri-Clamp**

DN	PN	D	dM Ø	d1	b	pipe internal Ø d			weight approx. kg	
						pipes as per ASME BPE	O.D. Tube BS4825 Part 3	ISO 1127		
1"	25	16	50.5	18	43.5	15	22.2	22.2	23.7	0.3
1 1/2"	38	16	50.5	34	43.5	12	34.8	34.8	38.4	0.3
2"	51	16	64	46	56.5	14	47.5	47.5	44.3	0.4
2 1/2"	63.5	16	77.5	51	70.5	14	60.3	60.3	56.3	0.5
3"	76.1	10	91	65	83.5	14	72.9	72.9	72.1	0.8

**Diaphragm seal for clamp connection per DIN 32676** for pipes per DIN 11850

DN	PN	D	dM Ø	d1	b	pipe internal Ø d	weight approx. kg
25	16	50.5	22.6	43.5	14	26	0.3
32	16	50.5	30	43.5	14	32	0.3
40	16	50.5	34	43.5	12	38	0.3
50	16	64	46	56.5	14	50	0.4
65	10	91	65	83.5	14	66	0.8

**Order Details**

- please give additional specifications for models not listed -

Diaphragm seal for food/pharmaceutical/biotechnology, clamp-connection <sup>1</sup>					
	clamp socket-Ø		membran-Ø dM		
design per ISO 2852	· DN 1"	PN 16	50.5 mm	22.6 mm	<b>DL3100</b>
	· DN 1 1/2"	PN 16	50.5 mm	34 mm	<b>DL3200</b>
	· DN 2"	PN 16	64 mm	46 mm	<b>DL3300</b>
	· DN 2 1/2"	PN 16	77.5 mm	51 mm	<b>DL3400</b>
	· DN 3"	PN 10	91 mm	65 mm	<b>DL3500</b>
Tri-Clamp	· DN 1"	PN 16	50.5 mm	22.6 mm	<b>DL3130</b>
	· DN 1 1/2"	PN 16	50.5 mm	34 mm	<b>DL3230</b>
	· DN 2"	PN 16	64 mm	46 mm	<b>DL3330</b>
	· DN 2 1/2"	PN 16	77.5 mm	51 mm	<b>DL3430</b>
	· DN 3"	PN 10	91 mm	65 mm	<b>DL3530</b>
design per DIN 32676	· DN 25	PN 16	50.5 mm	22.6 mm	<b>DL4100</b>
	· DN 32	PN 16	50.5 mm	30 mm	<b>DL4200</b>
	· DN 40	PN 16	50.5 mm	34 mm	<b>DL4300</b>
	· DN 50	PN 16	64 mm	46 mm	<b>DL4400</b>
	· DN 65	PN 10	64 mm	65 mm	<b>DL4500</b>
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 .	
		· welded		B40 ..	
	· with capillary	· screwed G 1/2		B20 ..	
		· welded		B50 ..	
· with capillary and stainless steel protective tube	· screwed G 1/2		B10 ..		
material	· wetted parts stainless steel mat.-no. 1.4435 (316L)				7
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
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):					DL3200 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> aseptic connection per Südmo 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