



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
- With reduced temperature effect and reinforced diaphragm (LTC-technology)
- Special materials upon request
- Connection to zone 0 with flame arrester

Application area

- Chemicals
- Pharmaceuticals
- Food industry

Application

Suitable for mounting to bourdon tube pressure gauges and pressure transmitters. The flange-type diaphragm seal is suited for measuring aggressive, highly viscous media and for high process temperatures.

Technical Data

Process connections

flange connections per DIN and ASME
see order code

Diaphragm seal material

flange: stainless steel
mat. no. 1.4404 (316L)

Sealing surfaces

per
- EN 1092-1
 model B1, B2, C, D, E
- ASME B 16.5, RFSF, RF125-250AA,
 RJF
with special material sealing surface
upon request

Nominal pressure/nominal widths
see table

Separating diaphragm

standard material: stainless steel,
further materials see order code.

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, pressure transmission fluid and installation.


Temperature influence

Influence of process temperature to meas. system (when pressure transmitter is mounted):
· standard (Sinus-type):
 DN 50: 0.8 mbar/10K
 DN 80: 0.4 mbar/10K
· LTC-technology:
 DN 50: 0.4 mbar/10K
 DN 80: 0.2 mbar/10K

Pressure transmission fluid

see technical instruction TA_038.
Standard according to order code

Ex-approval

connection to Zone 0 with flame arrester
PTB 03 ATEX 4032 X  IIG IIC
declaration of conformity:
KE 17060301-03

Installation instructions

see technical instruction TA_031.

Weight

with measuring instrument connection
G1/2 see table

Measuring instrument connection

directly welded
Code: A400

directly screwed
Code: A300

temperature decoupler
Code: A100

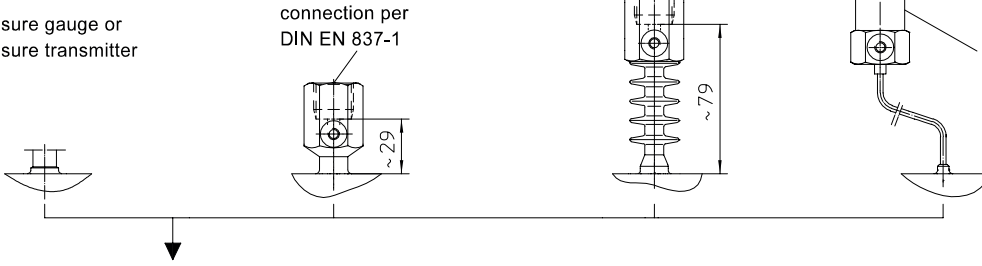
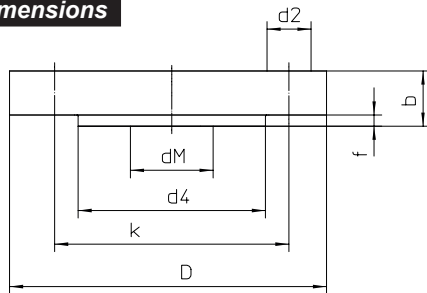
capillary
welded Code: B40../B50..
screwed Code: B20../B10..

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****dimensions (mm) ASME**

DN	PN psi	D	dM	d4	k	d2	no. of borings			weigth approx. kg
								b	f	
1"	150	110	30	51	79.4	16	4	18	2	1.3
1"	300	125	30	51	88.9	19	4	18	2	2.5
2"	150	150	51	92	120.7	19	4	20	2	3.2
2"	300	165	51	92	127.0	19	8	22.5	2	4.1
3"	150	190	86	127	152.4	19	4	24	2	5.2
3"	300	210	86	127	168.3	22	8	29	2	5.7
4"	150	230	86	158	190.5	19	8	24	2	7.0
4"	300	255	86	158	200.0	22	8	32	2	11.0

dimensions (mm) DIN EN 1092-1

DN	PN	D	dM	d4	k	d2	no. of borings			weigth approx. kg
								b	f	
25	10/40	115	27	68	85	14	4	18	2	1.5
25	63/100	140	27	68	100	18	4	24	2	2.0
50	10/40	165	51	102	125	18	4	20	2	3.2
50	63	180	51	102	135	22	4	26	2	4.1
80	10/40	200	86	138	160	18	8	24	2	5.0
100	10/16	220	86	158	180	18	8	20	2	6.0
100	25/40	235	86	162	190	22	8	24	2	10.0
125	10/16	250	86	188	210	18	4	22	2	10.0
125	25/40	270	86	188	220	26	8	26	2	11.0

Order Details - please give additional specifications for models not listed -**Diaphragm seal for general application flange-type per DIN EN and ASME**

		(new standard) DIN EN 1092-1	(old standard) DIN 2526	
design per DIN	sealing surface	· model B1	· DIN 2526, model C/D	DA1 ...
		· model B2 ¹	· DIN 2526, model E ¹	DA2 ...
		· model C	· DIN 2512, model F	DA4 ...
		· model D	· DIN 2512, model N	DA3 ...
		· model E	· DIN 2513, model V13	DA7 ...
	nominal width	· DN 25, PN 10-40		12 .
		· DN 25, PN 63-100		15 .
		· DN 50, PN 10-40		42 .
		· DN 50, PN 63		43 .
· DN 80, PN 10-40		62 .		
· DN 100, PN 10-16		71 .		
· DN 100, PN 25-40		72 .		
design per ASME	sealing surface	· ASME B16.5 RFSF ¹		DA5 ...
		· ASME B16.5 RF125-250 AA		DA51 ..
		· ASME B16.5 RJF		DA6 ...
	nominal width	· DN 1", PN 150 psi		11 .
		· DN 1", PN 300 psi		12 .
		· DN 2", PN 150 psi		31 .
		· DN 2", PN 300 psi		32 .
		· DN 3", PN 150 psi		51 .
		· DN 3", PN 300 psi		52 .
· DN 4", PN 150 psi		61 .		
· DN 4", PN 300 psi		62 .		
design	· standard		0	
	· zone 0		2	
connection of measuring instrument	· directly	· welded		A400 .
		· screwed G1/2		A300 .
	· with temperature decoupler A100		· screwed G1/2	A100 .
	· with capillary		· welded	B40 ..
			· screwed G1/2	B20 ..
	· with capillary and stainless steel protective tube		· welded	B50 ..
		· screwed G1/2	B10 ..	
material wetted parts	· stainless steel mat.-no. 1.4404/1.4435 (316 L), standard			1
	· stainless steel mat.-no. 1.4435/1.4435 (316 L), LTC membrane technology ⁴			1L
	· stainless steel mat.-no. 1.4435 (315L)			7
	· Tantalum			2
	· Hastelloy C276			3
· Hastelloy C4			8	
system filling ²	<u>pressure transmission fluid</u>		<u>temperature range³</u>	
	· synthetic oil free of silicone FD1, standard		-10...+140 °C	L22
	· synthetic oil free of silicone FD1, pls. specify temperature range, max.		-50...+230 °C	L23
· high temperature oil FV3H		-10...+400 °C	L31	
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):				DA1420 A4001 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

¹ necessary with special materials² For further information please check technical instruction TA_038.

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

³ max. temperature of liquid filling for abs. pressure > 1 bar⁴ for DN 50 and DN 80