



Features

- Flush-mounted separating diaphragm of stainless steel, welded by laser
- Volume optimized diaphragm base
- Dead-zone free design
- Extension length 50, 100, 150, 200 mm or special lengths
- Connection of measuring instrument:
 - directly welded
 - directly screwed
 - with temperature decoupler
 - with capillary

Options

- Material certificate acc. to EN 10204-3.1
- 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 with diaphragm extension is suited for measuring aggressive, highly viscous media and for high process temperatures. The extension of the diaphragm allows an almost dead-zone free measuring arrangement.

Technical Data

Process connections

extension length: standard lengths 50, 100, 150, 200 mm
special length upon request.
Flange connections per DIN and ASME, welded with the extension

Diaphragm seal material

basic body and extension: stainless steel
Diaphragm material and further materials of sealing surface/extension see order code

Sealing surfaces

per
- EN 1092-1
 model B1, B2, C, D
- ASME B 16.5, RFSF, RF125-250 AA, 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

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.

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:
DN 80 approx. 6.5 kg
DN 1" (150 psi) approx. 1.8 kg
DN 2" (300 psi) approx. 5.1 kg
Further weights upon request

Measuring instrument connection

directly welded
Code: A400

directly screwed
Code: A300

temperature decoupler
Code: A100

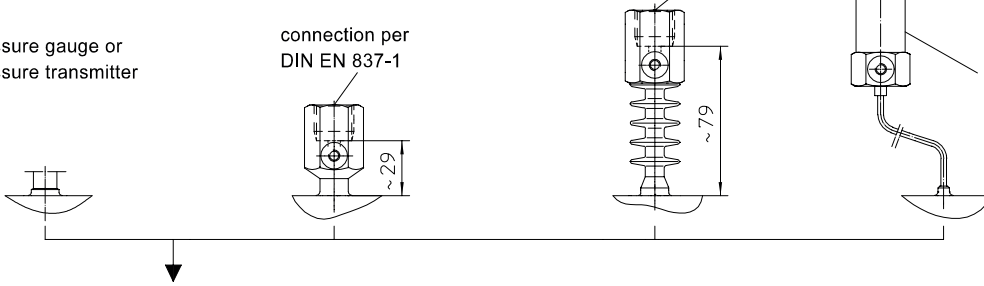
capillary
welded Code: B40../B50..
screwed Code: B20../B10..

pressure gauge or
pressure transmitter

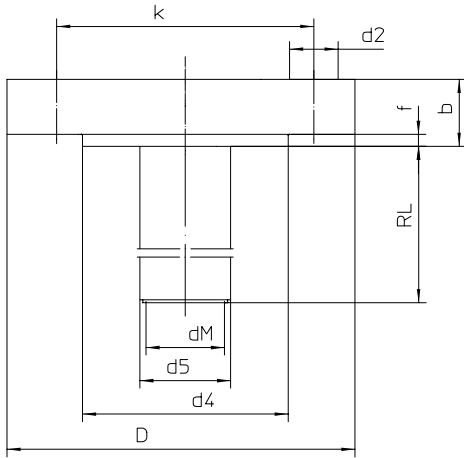
connection per
DIN EN 837-1

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) DIN EN 1092-1

DN	PN psi	D	dM	d4	k	d2	no. of borings	b	f	d5	RL
50	10/40	165	42	102	125	18	4	20	2	48.3	specify when ordering
80	10/40	200	72	138	160	18	8	24	2	76	
100	10/16	220	86	158	180	18	8	20	2	94	
100	25/40	235	86	162	190	22	8	24	2	94	
125	10/16	250	86	188	210	18	8	22	2	125	
125	25/40	270	86	188	220	26	8	26	2	125	

dimensions (mm) ASME

DN	PN psi	D	dM	d4	k	d2	no. of borings	b	f	d5	RL
1"	150	110	21	51	79.4	16	4	14.7	2	24.5	specify when ordering
1"	300	125	21	51	88.9	19	4	17.9	2	24.5	
2"	150	150	46	92	120.7	19	4	19.5	2	48.3	
2"	300	165	46	92	127	19	8	22.7	2	48.3	
3"	150	190	72	127	152.4	19	4	24.3	2	76	
3"	300	210	72	127	168.3	22	8	29	2	76	
4"	150	230	86	158	190.5	19	8	24.3	2	94	
4"	300	255	86	158	200	22	8	32.2	2	94	

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

Diaphragm seal for general application flange-type with diaphragm extension

design per DIN	sealing surface	(new standard) DIN EN 1092-1	(old standard) DIN 2526		
		· model B1	· DIN 2526, model C/D	DB1 . . .	
		· model B2 ¹	· DIN 2526, model E ¹	DB2 . . .	
		· model C	· DIN 2512, model F	DB4 . . .	
	· model D	· DIN 2512, model N	DB3 . . .		
nominal width	· DN 50, PN 10-40			42 .	
	· DN 80, PN 10-40			62 .	
	· DN 100, PN 10-16			71 .	
	· DN 100, PN 25-40			72 .	
	· DN 125, PN 10-16			81 .	
· DN 125, PN 25-40			82 .		
design per ASME	sealing surface	· ASME B16.5 RFSF ¹		DB5 . . .	
		· ASME B16.5 RF125-250 AA		DB51 . . .	
		· ASME B16.5 RJF		DB6 . . .	
	nominal width	· DN 1", PN 300 psi		12 .	
		· 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 . .	←	
diaphragm material	· stainless steel mat.-no. 1.4404/1.4435 (316 L)		1		
	· stainless steel mat.-no. 1.4435 (316L)		7		
	· Hastelloy C276		3		
	· Hastelloy C4		8		
extension length	· h = 50 mm		F1		
	· h = 100 mm		F2		
	· h = 150 mm		F3		
	· h = 200 mm		F4		
	· h (mm): special length		F9		
material sealing surface/ex-tension	· stainless steel mat.-no. 1.4571 (316L) /1.4571 (316Ti), standard		K1		
	· Hastelloy C276		K3		
	· Hastelloy C4		K8		
	· variant upon request		K9		
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)					
wetted parts PFA-coating (black)				W4043	
material certificate acc. to EN 10204- 3.1, wetted parts				W1020	
Order code (example):				DB1420 A4001 F1 K1 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 materials
² 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 bar