

Diaphragm seal

VARIVENT® for VARINLINE® access unit

Type series DL8080



Application area

- Food industry
- Pharmaceutical industry
- Biotechnology

Features

- Flush-mounted separating diaphragm of stainless steel, laser welded
- Alternative with reinforced diaphragm in LTC technology (reduced temperature influence)
- Volume optimised diaphragm base
- EHEDG-certified
- System fillings for different applications
- Measuring device connection:
 - directly welded
 - directly screwed
 - with temperature decoupler
 - with capillary

Options

- Labom REconnect quick coupling device for easy and safe separation and connection of diaphragm seal systems. Available with a wide range of pressure gauges and pressure transmitters; Type series MK1000, see data sheet D6-022
- Certificates
 - Material certificate acc. to EN 10204-3.1
- Electropolishing (wetted parts)
- Hygienic design with advanced surface quality
- Special materials upon request

Application

Suitable for mounting to bourdon tube pressure gauges and pressure transmitters. The diaphragm seal for VARINLINE® access unit is used mainly for dead-zone free pressure measurement.

Technical data

Constructional design

Basic body:	Volume reduced diaphragm base Material: stainless steel mat.-no. 1.4404/1.4435 (316L)
Diaphragm:	Flush-mounted diaphragm, laser welded; alternative with reduced temperature influence and reinforced diaphragm in LTC technology. (LTC=Low Temperature Coefficient) Further details see General technical information TA_031.
Material wetted parts:	Diaphragm: Stainless steel mat.-no. 1.4435 (316L) Further materials upon request Basic body: Stainless steel mat.-no. 1.4404/1.4435 (316L)

Process connection

Design:	VARIVENT® connection for VARINLINE® access unit <ul style="list-style-type: none">■ Form B (D = 31)■ Form F (D = 50)■ Form N (D = 68)
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Nominal pressure: See table

Sealing are not included in the scope of delivery.

Measuring device connection

See order details.

Material stainless steel mat.-no. 1.4301 (304)

System filling

See order details; further upon request.

Further details about pressure transmission fluids see general technical information TA_038.

Hygienic design

The surface roughness of the wetted parts made of stainless steel are executed according to EHEDG Doc.8 and ASME BPE SF3.

In case of choosing the additional feature HY, we guarantee the following surface roughness values:

Diaphragm foil:	Ra ≤ 0.38 µm
Laser welds:	Ra ≤ 0.76 µm
Turned parts:	Ra ≤ 0.76 µm

Further versions of hygienic design upon request.

Temperature error

In order to optimise the system we provide a detailed error calculation upon request.

Weight

For process connection

Form B (D = 31): ca. 0.3 kg

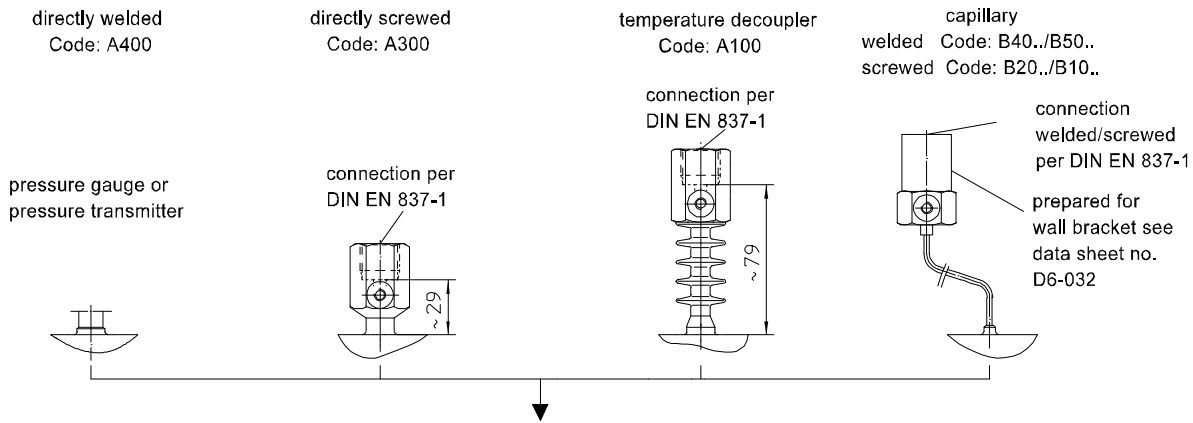
Form F (D = 50): ca. 0.6 kg

Form N (D = 68): ca. 0.8 kg

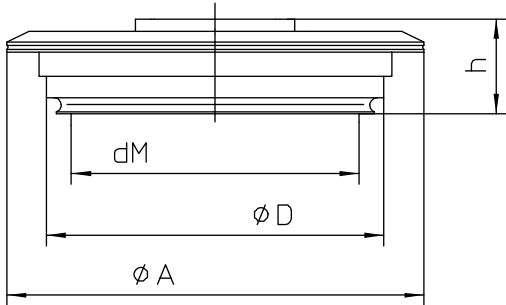
Further information about diaphragm seals see general technical information TA_031.

Flame arrester MF21xx for connection of measuring devices to zone 0 see data sheet D6-025.

Measuring device connection



Dimensions



VARIVENT® connection for VARINLINE® access unit

connection	D	dM	A	h	PN
Form B	31	17.5	52.7	20	25
Form F	50	40	66	19	25
Form N	68	58	84	19	25

Dimensions are in mm

Order details

Diaphragm seal, VARIVENT® for VARINLINE® access unit, Type series DL8080

Order details DL8080				
DL8080	design	VARIVENT® for VARINLINE® access unit		
	surface roughness	standard		
HY		Hygienic version as per EHEDG Doc.8 and ASME BPE SF3		
D15	VARIVENT® connection 1,2,3	Form B (D=31) for VARINLINE® access unit		
D40		Form F (D=50) for VARINLINE® access unit		
D58		Form N (D=68) for VARINLINE® access unit		
G7	diaphragm material	stainless steel mat.-no. 1.4435 (316L)		
G7L		stainless steel mat.-no. 1.4435 (316L), diaphragm in LTC technology ⁴		
G9		variant		
A400	measuring device connection	directly	welded	
A300			screwed G1/2	
A100		with temperature decoupler	screwed G1/2	
B40..		with capillary	welded	
B20..			screwed G1/2	
B50..		with capillary and stainless steel protective tube	welded	
B10..			screwed G1/2	
11		capillary length	1 m	
12			1.6 m	
13			2.5 m	
14			4 m	
21			5 m	
15			6 m	
23			7 m	
16			8 m	
17			10 m	
9	others			
	system filling ⁵	<u>pressure transmission fluid</u>	<u>temperature range</u> ⁶	
L22		synthetic oil, free of silicone FD1, standard	-10...140 °C	
L23		synthetic oil, free of silicone FD1, please specify max. temperature	-50...230 °C	
L15		glycerine/water FGW	-30...110 °C	

Additional features (to be indicated in case of need, only)	
W1020	material certificate acc. to EN 10204-3.1, wetted parts
W4035	electropolishing of wetted parts

Order code (example): DL8080 - D58 - G7 - A400 - L22 - ...

¹ additional designs upon request

² EHEDG certified only in connection with hygienic design (order code option HY)

³ EHEDG certificate valid only if gaskets are used that are listed in the "EHEDG position paper"

⁴ for Form N (D= 68) only

⁵ further and detailed Informations to pressure transmission fluids see TA_038. Please state temperature range to allow an accurate calculation of the system.

⁶ max. media temperature for pressures > 0 bar rel.