



Application area

- Food industry
- Pharmaceutical industry
- Biotechnology

Technical data

Constructional design / case

Basic body:	Volume reduced diaphragm base Material: stainless steel mat.-no. 1.4404/1.4435 (316L)
Union nut:	Material: stainless steel mat.-no. 1.4301 (304)
Diaphragm:	Flat diaphragm
Material wetted parts:	Diaphragm: Stainless steel mat.-no. 1.4435 (316L) Basic body: Stainless steel mat.-no. 1.4404/1.4435 (316L)

Process connection

Design:	HYGIENIC Tubus: Ø 43.3 mm
Diaphragm surface:	Ø 33 mm
Nominal pressure:	PN 40
Gasket:	Material silicone, FDA compliant Temperature range: -50...200 °C

Measuring device connection

See order details.
Material stainless steel mat.-no. 1.4301 (304)

System filling

See order details; further fillings upon request.
Further details about pressure transmission fluids see general technical information TA_038.

Features

- Flush-mounted separating diaphragm of stainless steel, laser welded
- Volume optimised diaphragm base
- EHEDG-certified
- System fillings for different applications
- Measuring device connection:
 - directly welded
 - directly screwed
 - with temperature decoupler
 - with capillary

Options

- Certificates
 - Material certificate acc. to EN 10204-3.1
- Electropolishing (wetted parts)
- Hygienic design with advanced surface quality

Application

Suitable for mounting to bourdon tube pressure gauges and pressure transmitters. The diaphragm seal HYGIENIC Tubus is used mainly for dead-zone free pressure measurement.

Hygienic design

The surface quality of the wetted parts made of stainless steel is of major importance. The hygienic type device (Code: HY) guarantees the following surface roughness values:

Diaphragm foil:	$Ra \leq 0.4 \mu\text{m}$
Laser welds:	$Ra \leq 0.8 \mu\text{m}$
Turned parts:	$Ra \leq 0.8 \mu\text{m}$

Further versions of hygienic design upon request.

Temperature error

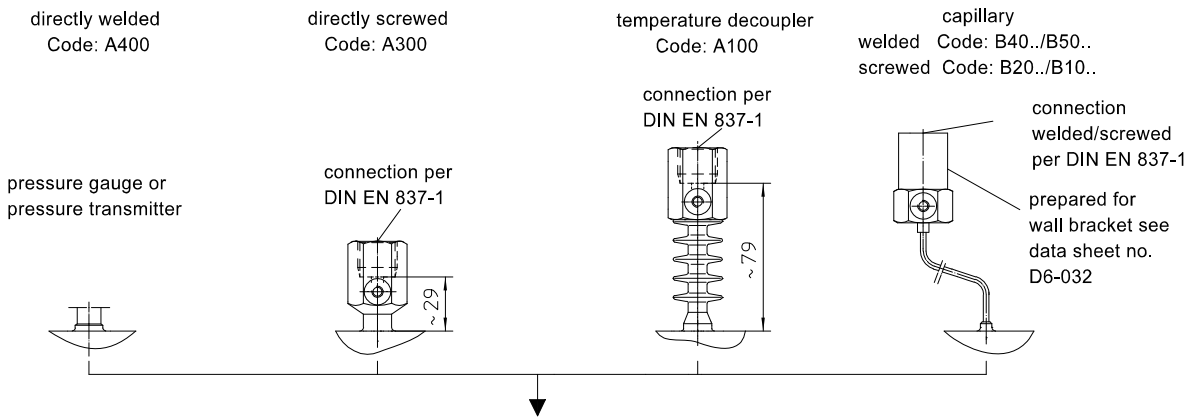
In order to optimise the system we provide a detailed error calculation upon request.

Weight

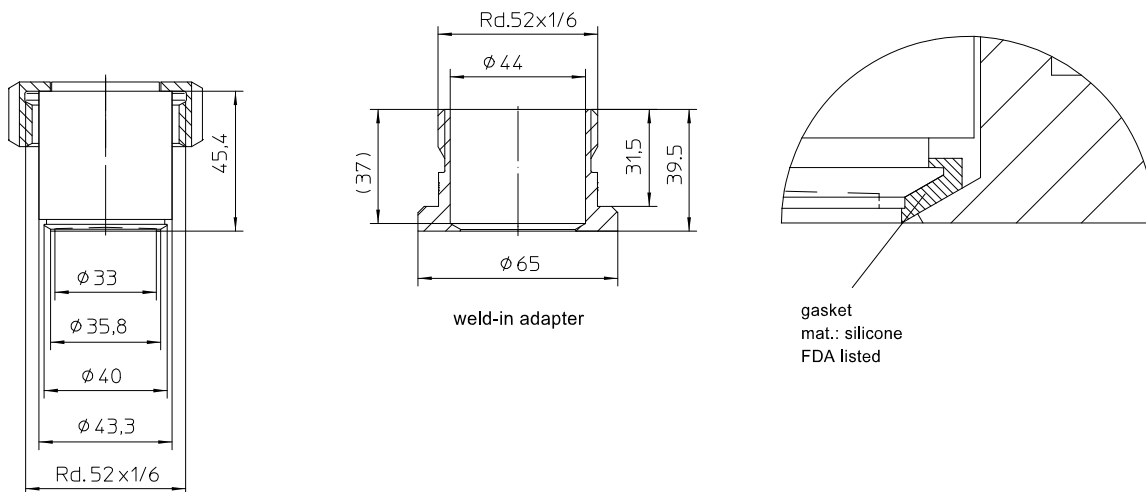
With measuring device connection G1/2 approx. 1.0 kg

Further information about diaphragm seals see general technical information TA_031.

Measuring device connection



Dimensions



Order details

Diaphragm seal for food/pharmaceutical/biotechnology, HYGIENIC Tubus Ø 43.3 mm with screwing DN 25, Type series DL9014

Order details diaphragm seal DL9014			
DL9014	design	HYGIENIC Tubus Ø 43.3 mm	
HY	surface roughness	hygienic version as per EHEDG guidelines	
E1	basic body material	stainless steel mat.-no. 1.4404/1.4435 (316L)	
G7	diaphragm material	stainless steel mat.-no. 1.4435 (316L)	
H3	gasket	silicone, FDA compliant, temperature range -50...200 °C	
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			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	
		<u>pressure transmission fluid</u>	<u>temperaturr range²</u>
L22	system filling ¹	synthetic oil, free of silicone FD1, standard	10...140 °C
L23		synthetic oil, free of silicone FD1, please specify max. temperature	-50...230 °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

Accessories	
MZ2040-HY	weld-in adapter, stainless steel mat.-no. 1.4571 (316Ti), hygienic design

Order code (example): DL9014 - HY - E7 - G7 - H3 - A400 - L22 - ...

¹ for more detailed information about pressure transmission fluids see TA_038.

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

² max. media temperature for pressures > 0 bar rel. The temperature range of the used gasket is to be observed.