

Diaphragm Seal

990.24 Varivent connection
with stainless steel pressure gauge

E 06.10.01

Ed.22.01

Design	Diaphragm Seal with sterile process connection Varivent connection Form F or N. Pressure gauge in stainless steel
Type	990.24
Pressure rate	PN 25 for pressure range from 0-1 bar to 0-25 bar
Material standard	Upper part of stainless steel 1.4404 (316L) Lower part and connection stainless steel 1.4435 (316L) Diaphragm of stainless steel 1.4435 (316L)
Level of cleanliness	Oil and grease free per ASTM G93-03 level E (< 550 mg/m ²)
Connection Form F	Connection Form F dim Ø 50 mm, flange Ø 66 mm for installation in Varinline access-unit DN 25
Connection Form N	Connection Form N dim Ø 68 mm, flange Ø 84 mm for installation in Varinline access-unit DN 40-DN 125
Surface roughness	Diaphragm Ra ≤ 0.76 µm per ASME BPE SF3
Process temperature	Max +80°C, in sterilisation (SIP) max +130°C
Ambient temperature	Ambient temperature standard +10+40°C Option lowest temperature to max -40°C Option highest temperature to max +60°C
Working Pressure	90% of full scale range by fluctuating pressure full scale value by short time pressure
Filling media	KN 59 Neobee M-20 (FDA 21 CFR 172.856) KN 92 white minerale oil (FDA 21 CFR 172.878) KN 7 glycerine (FDA 21 CFR 182.1320)
Certificate (option)	EN 10204-2.2 FDA-approval filling media EN 10204-2.2 Surface roughness of wetted parts EN 10204-2.2 Test report State-of-the-art EN 10204-3.1 Certificate wetted parts incl. chemical analysis EN 10204-3.1 Certification of class and accuracy EN 10204-3.1 Accuracy calibration values listed EN 10204-3.1 Pressure and stability test EN 10204-3.1 Helium leak test
More options	Electropolished diaphragm surface roughness Ra ≤ 0,38 µm Origen of wetted parts from EU, Schweiz or USA



Diaphragm Seal

for sanitary and sterile applications

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Pressure gauges for mounting with diaphragm seal 990.24



Stainless steel version

Case of stainless steel dim 100 mm, wetted parts of stainless steel

Accuracy Cl.1,0%, pressure range max 250 bar

Ingress protection IP 65 EN 60529/IEC 529

Pressure limitation 90% of full scale value by fluctuating pressure

2840 = lower mount - standard without case filling

2841 = back mount - standard without case filling

2940 = lower mount - with liquid filled case (glycerine)

2941 = back mount - with liquid filled case (glycerine)

2880 = with vibration damped movement



Stainless steel safety version

Case of stainless steel dim 100 mm, wetted parts of stainless steel

Safety version EN 837-1 (S3) with safety wall behind the scale

Accuracy Cl.1,0%, pressure range max 250 bar

Ingress protection IP 65 EN 60529/IEC 529

Pressure limitation 90% of full scale value by fluctuating pressure

232.30 = standard without case filling

233.30 = with liquid filled case (glycerine)



With electrical switch

Case of stainless steel dim 100 mm, wetted parts of stainless steel

Safety version EN 837-1 (S3) with safety wall behind the scale

Accuracy Cl.1,0%, pressure range max 250 bar

Ingress protection IP 65 EN 60529/IEC 529

Pressure limitation 90% of full scale value by fluctuating pressure

Magnet spring switch 821 or inductive switch 831

Single switch with function max or min

Double switch with function max-min, min-max, 2x max or 2x min

PGS23.100 = case with or without liquid filled case

Options for pressure gauges

- Dial with unit bar/Pa, bar/psi, kPa, MPa, psi
- ATEX protection c with device cat 2G/2D
- Design acc.to NACE Sour Gas Service
- Design Oxygen Oil- and Grease free
- Silicone free version
- Dial with colored fields or customer logo
- Ingress protection IP 66 or IP 67
- Case in stainless steel 316 Ti
- Case polished
- Case epoxy-coated
- Case PTFE-coated
- Liquid filled case silicone M50 for low ambient temperatures



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Standard versions 990.24 Varivent

Diaphragm seal 990.24 Varivent connection Form F or Form N Surface roughness Ra ≤ 0.76 µm Temp +80°C (SIP) max +130°C Filling KN 92 FDA Stainless steel pressure gauge liquid filled case dim 100 mm				
	2940 dim 100 lower mount with 990.24 Varivent		2941 dim 100 back mount with 990.24 Varivent	
	Form F	Form N	Form F	Form N
Pressure range	Code	Code	Code	Code
0-1 bar	40340002	40342002	40341002	40343002
0-1,6 bar	40340003	40342003	40341003	40343003
0-2,5 bar	40340004	40342004	40341004	40343004
0-4 bar	40340006	40342006	40341006	40343006
0-6 bar	40340007	40342007	40341007	40343007
0-10 bar	40340008	40342008	40341008	40343008
0-16 bar	40340011	40342011	40341011	40343011
0-25 bar	40340013	40342013	40341013	40343013
-1/+1,5 bar	40340066	40342066	40341066	40343066
-1/+3 bar	40340067	40342067	40341067	40343067
-1/+5 bar	40340068	40342068	40341068	40343068
-1/+9 bar	40340069	40342069	40341069	40343069

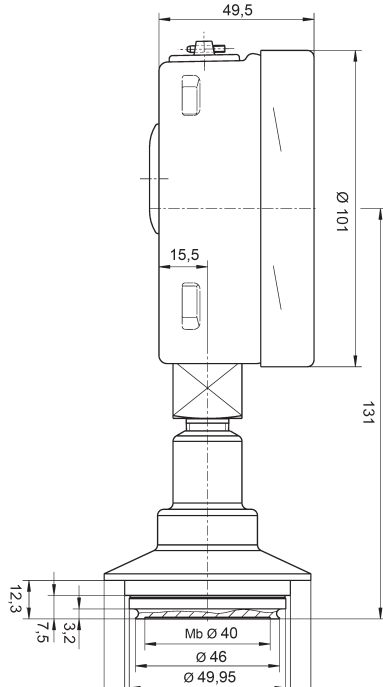
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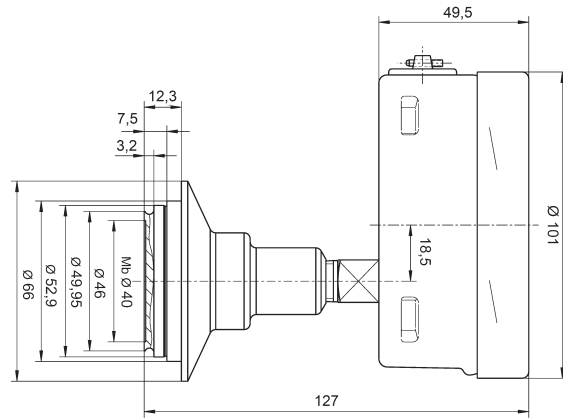
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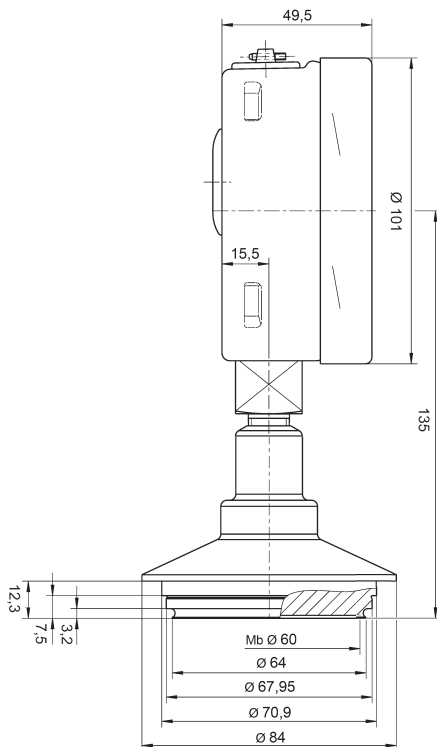
Diaphragm Seal 990.24 Varivent Form F
with pressure gauge 2940 lower mount



Diaphragm Seal 990.24 Varivent Form F
with pressure gauge 2941 back mount



Diaphragm Seal 990.24 Varivent Form N
with pressure gauge 2940 lower mount



Diaphragm Seal 990.24 Varivent Form N
with pressure gauge 2941 back mount

