PF-01

Diaphragm Pressure Gauge

Features

/ Highly viscous media

/ Crystallizing media

/ Resistant to shocks and vibrations

/ Highly safe on overpressure

Description:

The diaphragm springs are thin, circular and wavy membranes that are fixed between two crimped rings and impacted by the media on one side. The membrane deflection due to pressure exerted by the media is utilized to display the pressure by means of an indicator element. Diaphragm pressure gauges are resistant to vibrations and, optionally, they are available with safeguards against high overpressure. As the diaphragms are suitably coated, the devices can be used even under very rough conditions and hostile materials.

Application:

Thanks to their design principle and product material, diaphragm pressure gauges meet any rigorous requirements that are encountered when deployed in industrial production plants. Open connecting flanges allow their use for highly viscous, crystallizing and polluted media since in this version there is no clearance volume which may cause build up of deposits. Diaphragm pressure gauges are widely used in food-processing and beverage industries as well as in the manufacturing of machines, installations and plants.

Technical Specifications:

Accuracy class / quality class 1.6

Protection class / IP54 as per EN 60529 / IEC 529

Plug / PUR

Connection / G1/2" B at the bottom per EN 837-3,
PF-01.A brass, PF-01.B-D of st. steel

Options /
- medium safe 200°C,
- glycerin filling,
- open flange,
- membrane coating,
- other connection threads,
- overload safe, 10 times, but maximum 40 bar

Pressure /

Pressure	steady	dynamic	burst
PF-01.x..	1.00 x ME	0.90 x ME	5.00 x ME max. 40 bar

Temperature /

Temperature	max. Media temp.	Ambient temp.
PF-01.x..	+100°C	-25. . .+ 60°C

Temperature error /

Temperature error, T_{Ref} 20°C
rising: + 0.5% FS / 10K

falling: - 0.5% FS / 10K

Material /

Material	Housing	Window
PF-01.A.x..	round case, st. steel	instrument glass
PF-01.B.x..	round case, st. steel with pressure relief	laminated safety glass
PF-01.C.x..	round case, st. steel with pressure relief	laminated safety glass
PF-01.D.x.. (safety version)	round case, st. steel, with solid baffle wall and blow-out back	laminated safety glass

Material	Sensor element	Dial
PF-01.A.x..	upper and lower flange: aluminium diaphragm: stainless steel 1.4571 diaphragm sealing ring: NBR	white aluminium, black scale and lettering as per EN 837-3
PF-01.B.x..	upper flange: aluminium lower flange: stainless steel 1.4571 diaphragm: stainless steel 1.4571 diaphragm sealing ring: FPM	white aluminium, black scale and lettering as per EN 837-3
PF-01.C.x..	upper and lower flange: 1.4571 diaphragm: stainless steel 1.4571 diaphragm sealing ring: FPM	white aluminium, black scale and lettering as per EN 837-3
PF-01.D.x.. (safety version)	upper and lower flange: 1.4571 diaphragm: stainless steel 1.4571 diaphragm sealing ring: FPM	white aluminium, black scale and lettering as per EN 837-3

Material	Motion work	Pointer
PF-01.A–B.x..	Bottom and cover-parts from brass, moving parts argentan	black aluminium
PF-01.C–D.x..	stainless steel	black aluminium

Ordering Codes:

Order number	**PF-01.**	**A.**	**1.**	**17**

PF-01 Diaphragm Pressure Gauge

Version /
A = Upper and lower flange made of aluminium
B = Upper flange in al., lower flange in st. steel 1.4571
C = Upper and lower flange made of st. steel 1.4571
D = Upper and lower flange made of st. steel 1.4571 Safety

Nominal size /
1 = DN100
2 = DN160

Operating range /

01a	=	-0.6. . .0 bar
02	=	-1. . . 0 bar
03	=	-0.6. . .0. . .+1.0 bar
04	=	-1. . .0. . .+0.6 bar
05	=	-1. . .0. . .+1.5 bar
06	=	-1. . .0. . .+3 bar
07	=	-1. . .0. . .+5 bar
08	=	-1. . .0. . .+9 bar
09	=	-1. . .0. . .+15 bar
10a	=	-1. . .0. . .+24 bar
11	=	0. . .0.6 bar
12	=	0. . .1 bar
13	=	0. . .1.6 bar
14	=	0. . .2.5 bar
15	=	0. . .4 bar
16	=	0. . .6 bar
17	=	0. . .10bar
18	=	0. . .16 bar
19	=	0. . .25 bar
20	=	0. . .40 bar
21	=	0. . .10 mbar
22	=	0. . .16 mbar
23	=	0. . .25 mbar
24	=	0. . .40 mbar
25	=	0. . .60 mbar
26	=	0. . .100mbar
27	=	0. . .160mbar
28	=	0. . .250mbar
29	=	0. . .400mbar

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