PMD02

Digital Pressure Gauge

- nominal size 100 mm
- LCD display with 14 mm digit height
- measuring range from 0..2,5 mbar to 0..2500 bar
- stainless steel sensor also for aggressive media
- display units freely selectable
- MIN/MAX memory
- up to 4 alarm contacts
- analogue output and interfaces for RS232 and RS485
- data logger function

Description:

The digital manometer of the PMD02 series can be used universally on site. From the simple data sensor to the digital pressure measuring station with bus output and integrated data logger, the PMD02 is suitable for almost all areas in industry and mechanical and plant engineering.
A piezoresistive or thin film sensor converts the pressure of the medium at the process connection into an electrical signal, which is output on the display in the user adjustable unit.
Due to the use of stainless steel sensors, the PMD02 is also suitable for aggressive media. Various options for the signal outputs, analogue or digital via interfaces allow the PMD02 to be used even in complex plants in the chemical industry. The data logger functions with the wide setting range from 1 second to 24 hours open up further application possibilities for this series.

Typical applications:

The digital manometer have proven themselves in the following areas of application:

- mechanical engineering
- plant engineering
- hydraulic and pneumatic systems
- measuring equipment monitoring
- chemical industry

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Subject to technical changes

Models:

Materials: stainless steel housing 1.4301

Model K: ceramic sensor, Nylon, silicone, aluminium; piezoresistiv
(only for dry gases, max. 25 mbar)

Model E: sensor up to 2,5 bar:
stainless steel 1.4435; piezoresistive
sensor from 4 bar:
stainless steel 1.4568; thin film DMS

Process connection: G 1/4 B; G 1/4 NPT
G 1/2 B; G 1/2 NPT

Measuring Ranges:

Measuring range [bar] sensor (ceramic [K], st. steel [E])		Order code						
0.. 2,5 mbar	K	A55	B55	C55	D55	E55	F55	G55
0.. 4,0 mbar	K	A56	B56	C56	D56	E56	F56	G56
0.. 6,0 mbar	K	A57	B57	C57	D57	E57	F57	G57
0..10 mbar	K	A58	B58	C58	D58	E58	F58	G58
0..16 mbar	K	A59	B59	C59	D59	E59	F59	G59
0..25 mbar	K	A60	B60	C60	D60	E60	F60	G60
-0,10 .. 0	E	A11	B11	C11	D11	E11	F11	G11
-0,16 .. 0	E	A12	B12	C12	D12	E12	F12	G12
-0,25 .. 0	E	A13	B13	C13	D13	E13	F13	G13
-0,40 .. 0	E	A14	B14	C14	D14	E14	F14	G14
-0,60 .. 0	E	A15	B15	C15	D15	E15	F15	G15
-1,0 .. 0	E	A16	B16	C16	D16	E16	F16	G16
0.. 0,1	E	A63	B63	C63	D63	E63	F63	G63
0.. 0,16	E	A64	B64	C64	D64	E64	F64	G64
0.. 0,25	E	A65	B65	C65	D65	E65	F65	G65
0.. 0,4	E	A66	B66	C66	D66	E66	F66	G66
0.. 0,6	E	A67	B67	C67	D67	E67	F67	G67
0.. 1,0	E	A69	B69	C69	D69	E69	F69	G69
0.. 1,6	E	A70	B70	C70	D70	E70	F70	G70
0.. 2,5	E	A72	B72	C72	D72	E72	F72	G72
0.. 4,0	E	A73	B73	C73	D73	E73	F73	G73
0.. 6,0	E	A74	B74	C74	D74	E74	F74	G74
0.. 10	E	A75	B75	C75	D75	E75	F75	G75
0.. 16	E	A76	B76	C76	D76	E76	F76	G76
0.. 25	E	A78	B78	C78	D78	E78	F78	G78
0.. 40	E	A79	B79	C79	D79	E79	F79	G79
0.. 60	E	A80	B80	C80	D80	E80	F80	G80
0.. 100	E	A81	B81	C81	D81	E81	F81	G81
0.. 160	E	A82	B82	C82	D82	E82	F82	G82
0.. 250	E	A84	B84	C84	D84	E84	F84	G84
0.. 400	E	A86	B86	C86	D86	E86	F86	G86
0.. 600	E	A87	B87	C87	D87	E87	F87	G87
0..1000	E	A88	B88	C88	D88	E88	F88	G88
0..1600	E	A89	B89	C89	D89	E89	F89	G89
0..2500	E	A90	B90	C90	D90	E90	F90	G90

Order Code:

Order number: **PMD02. K. 15G. A75. S. I4. K2. 0. 0**

Digital manometer

Model sensor:
K = ceramic sensor (only up to 25 mbar, not for negative pressures)
E = stainless steel (from 0,1 bar)

Process connection:
08G = 1/4" male B
15G = 1/2" male B (standard)
08N = 1/4" male NPT
15N = 1/2" male NPT

Design and measuring range:
A11 ... G90 = see table „Measuring Ranges"

Power supply:
S = 12...30 VDC

Output signal:
I4 = 4..20 mA
I0 = 0..20 mA
U = 0..10 V

Limit contact:
0 = without
K2 = with 2 limit switches, min/max memory
K4 = with 4 limit switches, min/max memory

Interface:
0 = without
S2 = serial interface RS232 (only for device with limit switch)
S4 = serial interface RS485 (only for device with limit switch)

Options (combinations possible):
0 = without
H = for oxygen operation (Halocarbon filling, only < 4 bar)
S = cleaned for oxygen operation
P = test report
A = measuring system for absolute pressure (for range 0...0,1 up to 0...16 bar)
W = angled plug instead cable socket (not with limit switches)
D = data logger (in connection with interfaces)

Technical Data:

Housing: stainless steel 1.4301, 100 mm

Materials in contact with medium: see table „Models"

Display: 4 ½ digit LCD display (LED on request)
digit height 14 mm

Power supply: 12..30 VDC (without limit switches)
17..30 VDC (with limit switches)
P_{max} = 2,2 W

Electrical connection: cable socket, angled plug according to EN175301-803
with limit switches: 14 pin plug

Data logger: memory interval from 1 s to 24 h

Process connections: male 1/4, male 1/2 pipe thread B according to EN 837-1 or NPT

Accuracy: < 0,3 % of full scale, ± 1 Digit

Conversion rate: 2,5 measurements per seconds

Temperature range:
- storage temp.: -30..+80 °C
- medium: -20..+80 °C
- ambient: -20..+50 °C

Influence of temp.: zero point: < 0,2 % of full scale / 10 K
span: < 0,2 % of full scale / 10 K

Protection class: IP65

Weight: ca. 700 g

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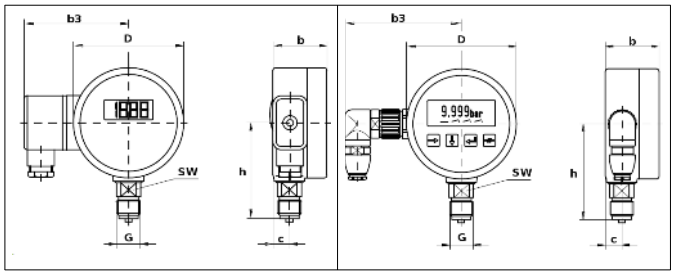
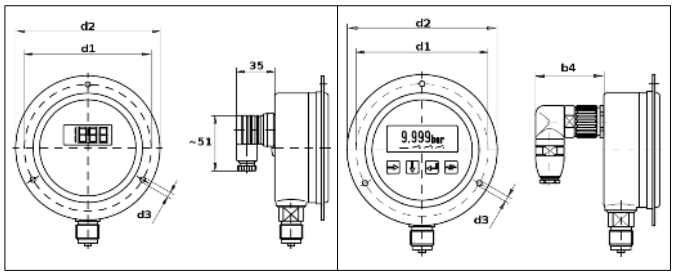
Mounting Forms:

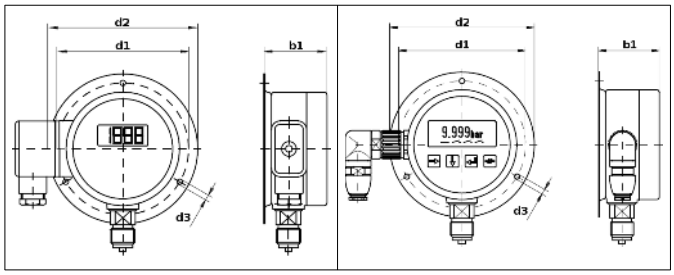
Version without limit switches | **Version with limit switches**



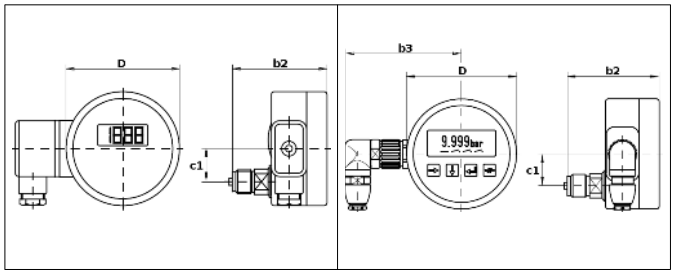
Design A: process connection at bottom
electrical connection on side
without rim



Design B: process connection at bottom
electrical connection at back
front rim

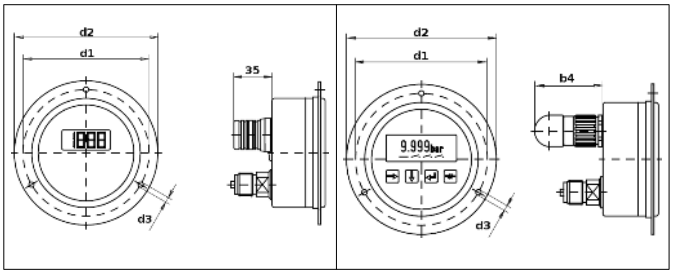


Design C: process connection at bottom
electrical connection on side
rear rim

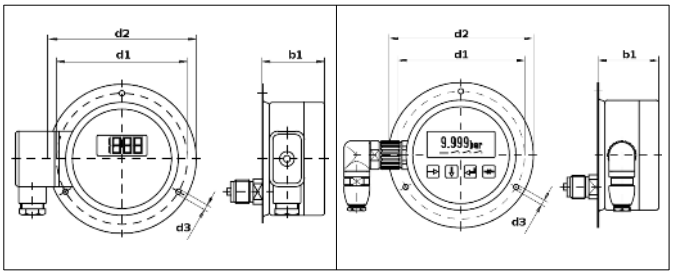


Design D: process connection at back
electrical connection on side
without rim

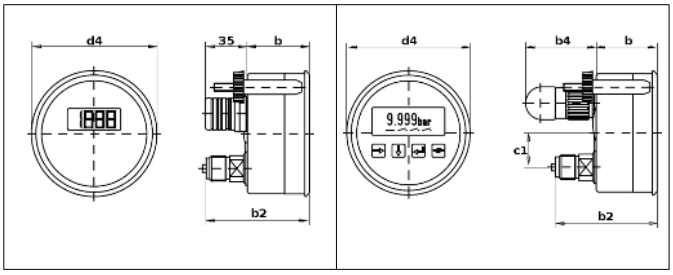
Version without limit switches | **Version with limit switches**



Design E: process connection at back
electrical connection at back
front rim



Design F: process connection at back
electrical connection on side
rear rim



Design G: process connection at back
electrical connection at back
triangular front ring for panel mounting

Dimensions:

Dimensions [mm]	Version without limit switches	Version with limit switches
b	50,0	
b1	56,0	
b2	86,5	
b3	87,0	90
b4		56
c	15,0	
c1	29,0	
D	100,8	
d1	116,0	
d2	132,0	
d3	4,8	
d4	107,0	
G	1/4"; 1/8"	
h	87	
SW	22	
Panel cut-out	105 (design G: 103)	

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