

Differential Pressure Gauges PMD

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E-6.12

Double diaphragm type high working pressure PN 40,100,250 or 400

APPLICATIONS

Differential pressure measurement with a high differential pressure overload and/or high working pressures (static pressures), also in aggressive ambient for gaseous, liquid, viscous and aggressive media monitoring and control of pumps filter monitoring level measurement in closed tanks

DESIGN

High overpressure safe on either sides.
Pressure rating PN 40, 100, 250 or 400.
Hydraulic cushioning protection against rapid pressure changes
The torque pipe seals with bearing, assures a frictionless path.
Overpressure protection in both directions up to the max Static pressure rating.

CASE DIAMETER

100 and 160 mm

ACCURACY CLASS ⁽¹⁾

Stainless steel AISI 316L: 1,6
Monel 400 (2.4360): 2,5
Hastelloy C276: 1,6

⁽¹⁾ at 20 °C and zero static pressure

SCALE RANGE

0...60 mbar to 0...160 mbar (gauge body DN140)
0...250 mbar (gauge body DN100)
0...0,4 bar to 0...40 bar (gauge body DN 88)
or equivalent other units of pressure, vacuum or combined pressure and vacuum

OVERPRESSURE SAFETY AND MAX. STATIC PRESSURE

Max static pressure on either side: 40,100,250, or 400 bar
Overpressure safety 400 bar only for ranges: 0...0,4 bar to 0...40 bar

OPERATING TEMPERATURE

Ambient : -20 / + 60 °C
Process fluid: +100 °C max.

TEMPERATURE ERROR

± 0,6% / 10 K of full scale value, when temperature of the pressure element deviates from +20 °C

ZERO SHIFT

Max. ± 2% at 20 °C and max static pressure

PROTECTION CLASS

IP 65 – EN 60 529 / IEC 529

STANDARD FEATURES

MEASURING FLANGES

Stainless steel AISI 316 L

PROCESS CONNECTION

2 x 1/4" NPT-Female (EN 837)
Lower

PRESSURE ELEMENT

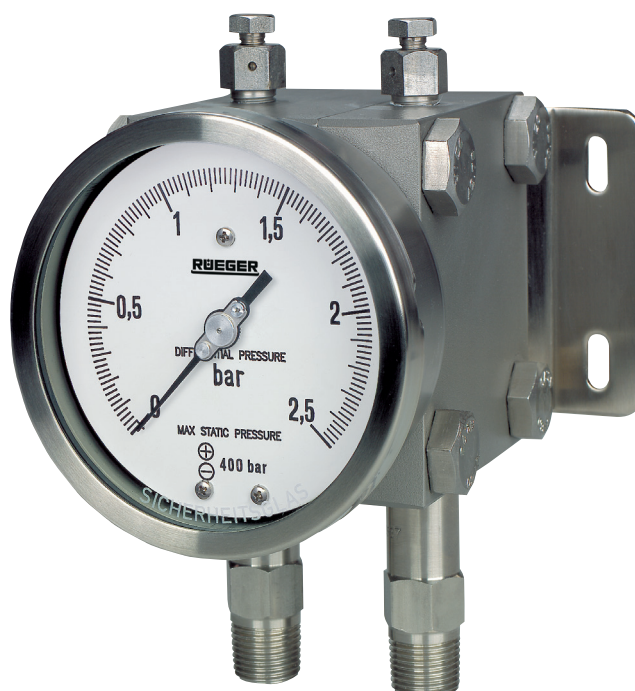
Double diaphragm
Range:
≤ 16 bar Stainless steel 316 L
> 16 bar Inconel 718
Internal stop without o-ring

DIAPHRAGM SEALING RINGS

FPM (Viton R)

PURGING PLUGS

2 x 1/4" NPT-M
stainless steel AISI 316L



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BOLTS

Stainless steel AISI 304
(PN100 bar max.)
Alloy steel zinc flake coated, RoHS
complaint
(PN 250 and 400 bar)

MOVEMENT

Stainless steel with bearing

DIAL

Aluminium with black
markings on white background

POINTER

Adjustable, black aluminium
External zero adjustment with filled
case and/or electrical contact

CASE AND RING

Material: stainless steel AISI 316
Style: bayonet ring

WINDOW

Laminated safety glass,
4 mm thickness

CHAMBER FILLING FLUID

Silicone oil

MOUNTING

Stem mounting
Symbols (+) higher pressure and (-)
lower pressure engraved on body
identify pressure entries

OPTIONS

Scale range 0...40 mbar (dial arc 180°)
Other threaded process connections
Connection at 12 o'clock
Capillary cooling when pressure medium
temperature > 100 °C
Panel mounting flange
Surface mounting flange
2" pipe mounting bracket st. steel AISI 316
Plastic window (not in ATEX execution)
Special dial layout
Glycerine filled case (+15 /+60°C)
Silicone oil filled case (-40 / +60 °C)
Other chamber filling fluid such as
compatible with food processes or for
oxygen service (static pressure max.100 bar)
Pressure equalising valve 3 or 5 way
Maximum reading pointer
Stainless steel tag plate
Wetted part components in Alloy 400 or
Hastelloy C276
Diaphragm Alloy 400, Hastelloy C276
Electric contacts (3)
Diaphragm seals for range ≥ DP 250 mbar (4)
ATEX execution

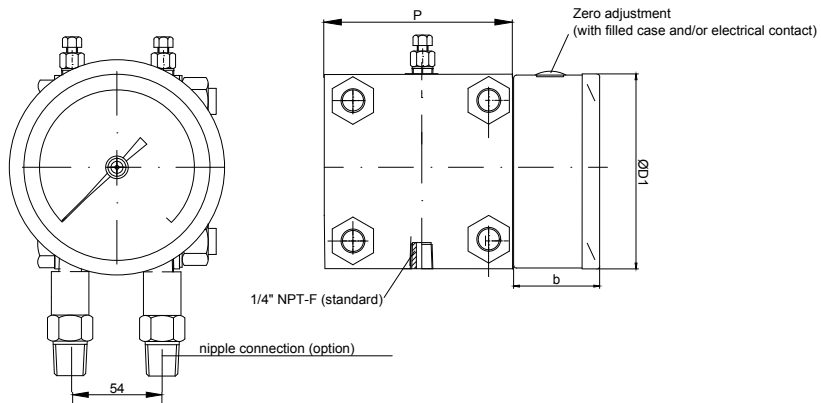


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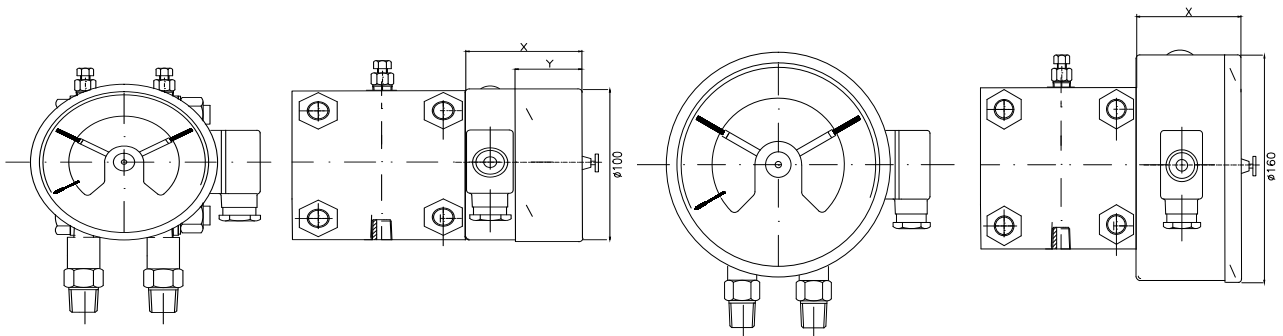
Notes:

- (3) ATEX execution : High case, contact under dial,
inductive contact :
PTB 99 ATEX 2219X / PTB 00 ATEX 2049X,
ZELM 03 ATEX 0128X,
for further information please see data sheet CE
electrical contacts
- (4) Large volume diaphragm seal for DP
(see catalogue)

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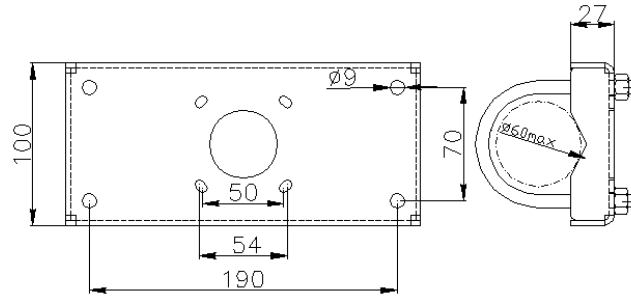
DN	range	P ∇ (PN 40/100)	P ∇ (PN 250)	(PN400)	b	D1
100	≤ 160 mbar	140	-	-	51	100
100	250 mbar	100	100	-	51	100
100	≥ 400 mbar	88	88	88	51	100
160	≤ 160 mbar	140	-	-	51	160
160	250 mbar	100	100	-	51	160
160	≥ 400 mbar	88	88	88	51	160



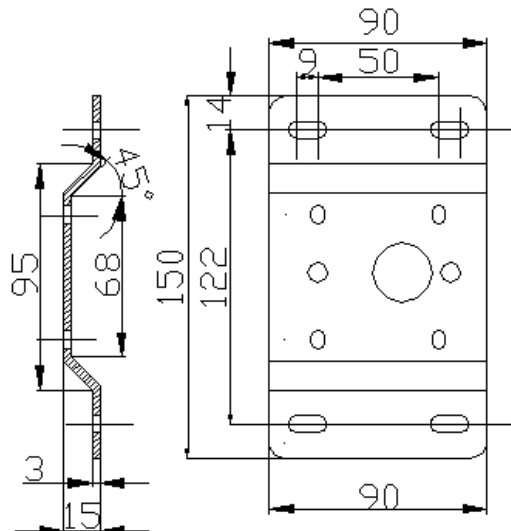
DN	Type of contact	X	Y
100	Single or double contact	88	55
100	DPDT	113	80
100	Quadruple contact	113	80
160	Single or double contact	102	
160	DPDT	116	
160	Quadruple contact	116	

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2" pipe bracket

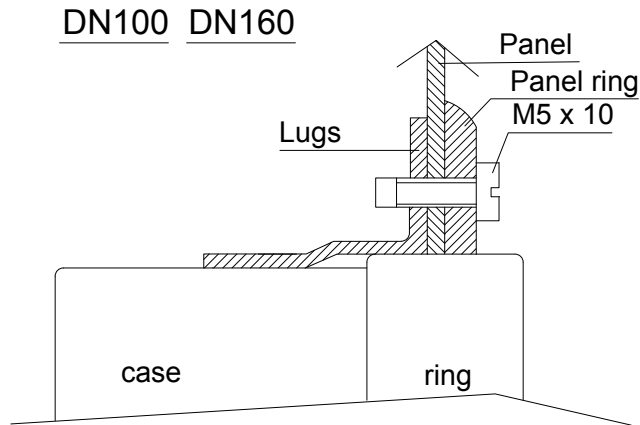


Back flange surface mounting



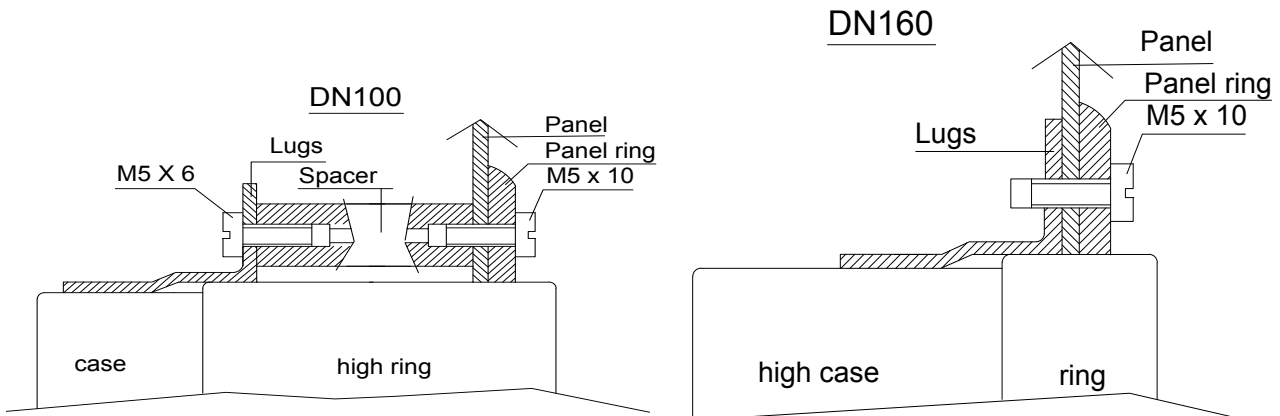
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Panel Mounting (*)



The assembly consist of:
Panel ring
4 screws M5

Panel Mounting with electrical contacts (*)



The assembly consist of:
Panel ring
4 spacers
8 screws M5

The assembly consist of:
Panel ring
4 screws M5

(*) Panel cut-out
105 for DN100
165 for DN160

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HOW TO ORDER

1) DIAMETER

100 or 160

2) MODEL

PMD

3) PROCESS CONNECTION different threads on request

- 1/4" NPT-F
- 1/4" NPT-M
- 1/4" BSP-M
- 1/2" NPT-M
- 1/2" NPT-F
- 1/2" BSP-M
- 1/2" BSP-F

4) MOUNTING

- STEM MOUNTING
- 2" PIPE MOUNTING BRACKET
- SURFACE MOUNTING WITH BACK FLANGE
- PANEL MOUNTING WITH OUTER PANEL RING

5) RANGES

0...60 mbar to 0...40 bar

6) STATIC PRESSURE

PN 40 - 100 - 250 - 400 bar

7) OPTIONALS

- PLEXIGLAS
- GLYCERINE FILLED CASE
- SILICON FILLED CASE
- ST. STEEL TAG PLATE
- MAXIMUM READING POINTER
- DIAL TAG MARKING
- CUSTOMER DESIGNED DIAL
- DIAPHRAGM MONEL
- DIAPHRAGM HASTELLOY C276
- MONEL WETTED PARTS
- HASTELLOY C276 WETTED PARTS
- OXYGEN SERVICE
- ATEX VERSION
- - - DIAPHRAGM SEALS
- - - ELECTRIC CONTACTS




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