

# P 400



## DIAPHRAGM PRESSURE GAUGES

### APPLICATION

- For measuring points with increased overpressure
- For gaseous, liquid and aggressive media, also in aggressive ambience
- With liquid filled case for applications with high dynamic pressure loads or vibrations
- With the open flange connection option also for viscous media
- Process industry: chemical/petrochemical, power stations, mining, on- and offshore, environmental technology, machine building and general plant construction

### SPECIAL FEATURES

- High overpressure safety
- All stainless steel construction
- Wide choice of special materials
- Process connection thread or flange
- Scale ranges from 0 ... 10 mbar

### STANDARD FEATURES

#### DESIGN

EN 837-3

#### CASE DIAMETER

100 and 160 mm

#### ACCURACY CLASS

1.6

#### SCALE RANGES

0...10 to 0...16 mbar  
(flange Ø 174 mm)  
0...25 to 0...250 mbar  
(flange Ø 150 mm)  
0...0,4 to 0...40 bar  
(flange Ø 100 mm)  
or equivalent other units of  
pressure or vacuum

#### PRESSURE LIMITATION

Steady: full scale value  
Fluctuating: 0.9 x FSV

#### OVERPRESSURE SAFETY

1,3 full scale value

### OPERATING TEMPERATURE

Ambient : -20 / +60 °C  
Medium : +100 °C maximum  
Storage : -40 / +70 °C (scale  
ranges ≤ 60 mbar : -20 / +70 °C)

### TEMPERATURE EFFECT

When temperature of the  
measuring system deviates  
from reference temperature  
(+20 °C) max error ± 0,8% / 10K  
of full scale value

### INGRESS PROTECTION

IP 65 – EN 60 529 / IEC 529  
without/with liquid filling

### PRESSURE CHAMBER

AISI 316 stainless steel  
lower and upper diaphragm  
housing

### PROCESS CONNECTION

AISI 316 L stainless steel  
Thread size 1/2" BSP or NPT

### PRESSURE CHAMBER SEALING

FPM/FKM

### PRESSURE ELEMENT

≤ 16 bar AISI 316L stainless steel  
> 16 bar Inconel 718

### DIAL

Aluminium with black  
markings on white  
background, dial arc 270 °

### CASE AND RING

AISI 304 stainless steel  
Bayonet ring style  
with pressure relief in case  
back  
Filling plug on top

### MOVEMENT

Stainless steel

### POINTER

Adjustable, black aluminium

### WINDOW

Laminated safety glass

### MOUNTING

Lower connection

### OPTIONAL EXTRAS

Other process connection  
Case and ring AISI 316 stainless steel  
Overpress. safe : 5 x FSV, max. 40 bar  
Overpress. safe : 10 x FSV, max. 40 bar  
Vacuum safe up to -1 bar  
Max. medium temperature +200 °C (NOT  
for ATEX version)  
Ambient temperature -40/+60 °C  
(silicone oil filling)  
Higher accuracy class 1.0  
Open flange connection  
per UNI EN/ASME  
Wetted parts lined/coated with special  
materials: PTFE, Hastelloy C276, Monel  
Glycerine case filling  
Silicon oil case filling  
Electric contact (see CE data sheet)  
Bracket for surface mounting  
Flushing plug on lower body  
(ranges ≥ 400 mbar)  
Cleaning for oxygen service  
Customer designed dials  
Dial tag marking  
ATEX execution  
Version ATEX (with inductive contacts)



### SPECIAL VERSION

Overpressure safety up 4 0 or 100 bar  
model P400.40 / P400.100  
High overpressure safety up to 400 bar  
special version with case solid-front

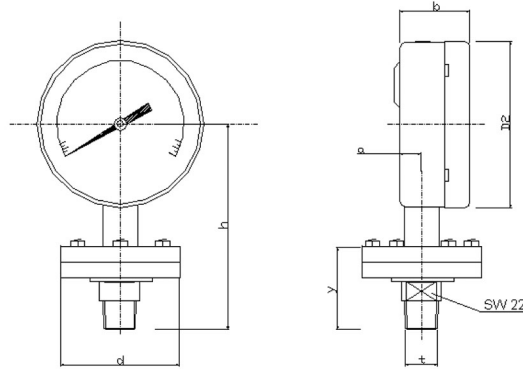


**Calle Pirita 12450 Galpón 22**  
**La Chimba Alto Antofagasta - Fono (55) 261 8313**

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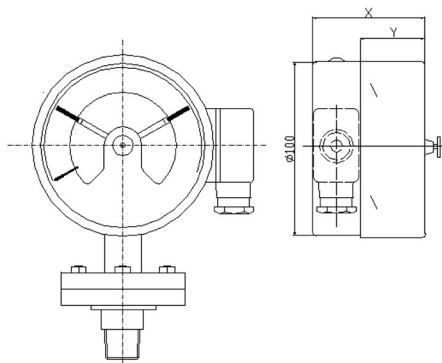


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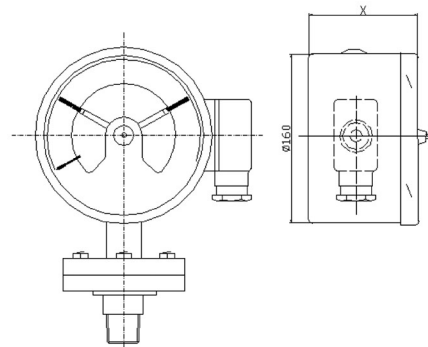


Dimensions (mm)

| CASE DN | RANGE          | d   | a  | b    | D2  | t             | h±2 | y  | Weight Kg |
|---------|----------------|-----|----|------|-----|---------------|-----|----|-----------|
| 100     | 10 to 16 mbar  | 174 | 17 | 49.5 | 101 | ½" BSP or NPT | 135 | 55 | 2,6       |
| 160     | 10 to 16 mbar  | 174 | 17 | 49.5 | 161 | ½" BSP or NPT | 165 | 55 | 3,2       |
| 100     | 25 to 250 mbar | 150 | 17 | 49.5 | 101 | ½" BSP or NPT | 135 | 55 | 2,4       |
| 160     | 25 to 250 mbar | 150 | 17 | 49.5 | 161 | ½" BSP or NPT | 165 | 55 | 3,0       |
| 100     | 0,4 to 40 bar  | 100 | 17 | 49.5 | 101 | ½" BSP or NPT | 135 | 55 | 1,8       |
| 160     | 0,4 to 40 bar  | 100 | 17 | 49.5 | 161 | ½" BSP or NPT | 165 | 55 | 2,2       |



| TYPE OF CONTACT          | CASE DN 100 |    |
|--------------------------|-------------|----|
|                          | X           | Y  |
| Single or double contact | 88          | 55 |
| DPDT                     | 113         | 80 |
| Quadruple contact        | 113         | 80 |



| TYPE OF CONTACT          | CASE DN 160 |  |
|--------------------------|-------------|--|
|                          | X           |  |
| Single or double contact | 102         |  |
| DPDT                     | 116         |  |
| Quadruple contact        | 116         |  |

ED. 11/2011 In the interest of technical progress ITEC reserve the right to modify, without prior notice, the specifications and material mentioned



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