

PDR02

Differential pressure gauge with double Bourdon tubes for measuring relative and differential pressures

- Made completely of stainless steel, fully welded design
- Available measuring ranges: from -1...0 bar to 0...1600 bar
- Housing diameter: 100 or 160 mm
- Designs for all types of installations available



Description:

Model PDR02 pressure gauges have two separate, independent Bourdon tube measuring systems, each with its own indicator needle. The two needles indicate their respectively measured pressure on the same gauge scale. These devices can be used to monitor two separate measurement points or to determine differential pressure, such as the pressure between the inlet and outlet of a filter. The differential pressure is indicated by difference between the readings shown by the two needles. As an option, the differential pressure can also be directly read by means of an additional rotary scale. These devices are made completely of stainless steel and available in housing diameters of 100 mm or 160 mm. Housing designs are available for essentially all possible types of installations.

Typical Applications:

Model PDR02 differential pressure gauges are primarily used in the following areas of application:

- Filter monitoring
- Chemical and petrochemical industries
- Ship building
- General industrial applications

Models:

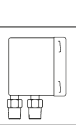
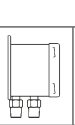
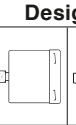
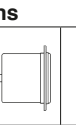
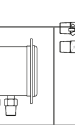

Nominal size: Housing diameter of 100 or 160 mm
Materials: Housing made of stainless steel 1.4301, Bourdon tubes and process connection made of stainless steel 1.4571

Process connection:
 2 x G 1/2 connections, male thread
 or 2 x 1/2" NPT connections, male thread

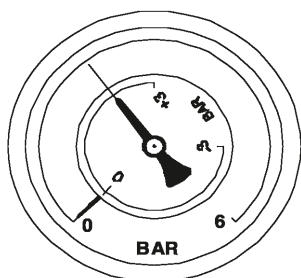
Designs:

- Version K:** for mounting on piping, connection on bottom
- Version L:** for surface mounting with rim flange on back side, connection on bottom
- Version M:** for mounting on piping, connection on back
- Version N:** for panel mounting, with three-hole bezel, connection on back
- Version O:** for panel mounting, with three-hole bezel, connection on bottom
- Version M:** for panel mounting, with bezel and retainer, connection on back

Measuring ranges:

| Measuring range in bar | Designs | | | | | |
|------------------------|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| | Ordering codes | | | | | |
| -1 ... 0 | K16 | L16 | M16 | N16 | O16 | H16 |
| -1 ... 0.6 | K42 | L42 | M42 | N42 | O42 | H42 |
| -1 ... 1.5 | K43 | L43 | M43 | N43 | O43 | H43 |
| -1 ... 3 | K44 | L44 | M44 | N44 | O44 | H44 |
| -1 ... 5 | K45 | L45 | M45 | N45 | O45 | H45 |
| -1 ... 9 | K46 | L46 | M46 | N46 | O46 | H46 |
| -1 ... 15 | K49 | L49 | M49 | N49 | O49 | H49 |
| -1 ... 24 | K52 | L52 | M52 | N52 | O52 | H52 |
| 0 ... 0.6 | K67 | L67 | M67 | N67 | O67 | H67 |
| 0 ... 1 | K69 | L69 | M69 | N69 | O69 | H69 |
| 0 ... 1.6 | K70 | L70 | M70 | N70 | O70 | H70 |
| 0 ... 2.5 | K72 | L72 | M72 | N72 | O72 | H72 |
| 0 ... 4 | K73 | L73 | M73 | N73 | O73 | H73 |
| 0 ... 6 | K74 | L74 | M74 | N74 | O74 | H74 |
| 0 ... 10 | K75 | L75 | M75 | N75 | O75 | H75 |
| 0 ... 16 | K76 | L76 | M76 | N76 | O76 | H76 |
| 0 ... 25 | K78 | L78 | M78 | N78 | O78 | H78 |
| 0 ... 40 | K79 | L79 | M79 | N79 | O79 | H79 |
| 0 ... 60 | K80 | L80 | M80 | N80 | O80 | H80 |
| 0 ... 100 | K81 | L81 | M81 | N81 | O81 | H81 |
| 0 ... 160 | K82 | L82 | M82 | N82 | O82 | H82 |
| 0 ... 250 | K84 | L84 | M84 | N84 | O84 | H84 |
| 0 ... 400 | K86 | L86 | M86 | N86 | O86 | H86 |
| 0 ... 600 | K87 | L87 | M87 | N87 | O87 | H87 |
| 0 ... 1000 | K88 | L88 | M88 | N88 | O88 | H88 |
| 0 ... 1600 | K89 | L89 | M89 | N89 | O89 | H89 |

Rotary scale for direct reading of the differential pressure:



Model Coding:

Order Number: PDR02 10. E. 15G. 0. K75. 0. 0

Pressure gauge with double Bourdon-tube measuring system

Models:

10 = Housing diameter of 100 mm
 16 = Housing diameter of 160 mm

Materials:

E = Completely of stainless steel

Process connection:

15G = 2 x G 1/2 connection, male thread
 15N = 2 x 1/2" NPT, male thread
 S = Special-order connection (see table "Options and Accessories")

Vibration dampening:

0 = None
 1 = Glycerin-filled

Designs and measuring ranges:

K16 to H89 = See table "Measuring Ranges"

Electrical accessories:

0 = None

Options and accessories (more than one may be selected):

0 = None
 xxx = See table "Options and Accessories"

Technical Specifications:

Housing: Round gauge housing made of stainless steel 1.4301, d = 100 or 160 mm

Pressure-responsive element:

2 x Bourdon tube made of stainless steel 1.4571

Needle movement:

Brass

Glass face:

Instrument glass (4 mm)

Scale and needle:

Aluminum scale with white background and black graduations, black indicator needle

Process connection:

1/2" G or NPT (standard)
 1/4", 3/8" G or NPT (optional), all made of stainless steel 1.4571
 Other connections available upon request

Liquid-filled version:

Glycerin

Measuring ranges:

See table "Measuring Ranges"

Overload protection:

1.3 x end value

Media temp.:

-20° to +100°C

Accuracy:

Class 1.0

Protection type:

IP65

Options and Accessories:

| Description: | Code |
|---------------------------------|-------|
| Scale in psi | P |
| Double scale in bar / psi | BP |
| Scale for differential pressure | SD |
| Special-order scale | SK... |
| Process connection G 1/4 | 08G |
| Process connection G 3/8 | 10G |
| Process connection 1/4" NPT | 08N |
| Process connection 3/8" NPT | 10N |

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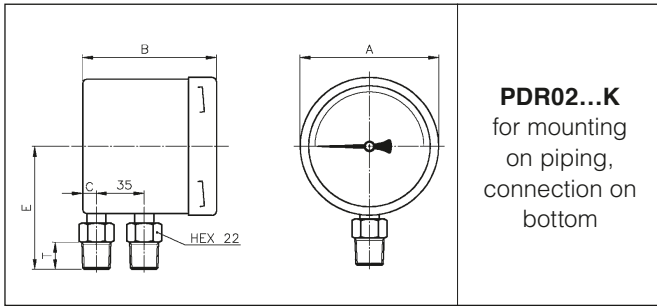
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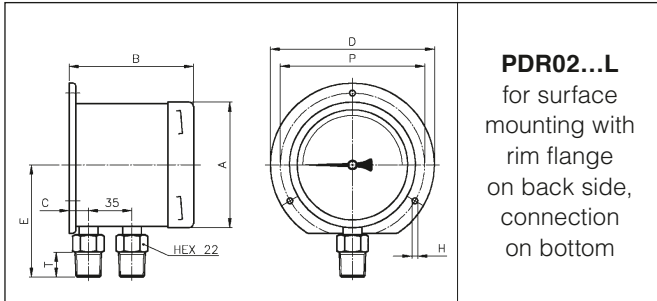


Dimensions:



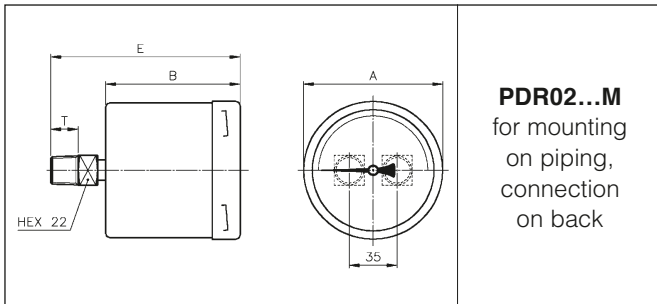
PDR02...K
for mounting
on piping,
connection on
bottom

| | Housing diameter (mm) | |
|---|-----------------------|-----|
| | 100 | 160 |
| A | 101,5 | 162 |
| B | 97 | 100 |
| C | 14 | 18 |
| E | 90 | 120 |
| T | 20 | 20 |



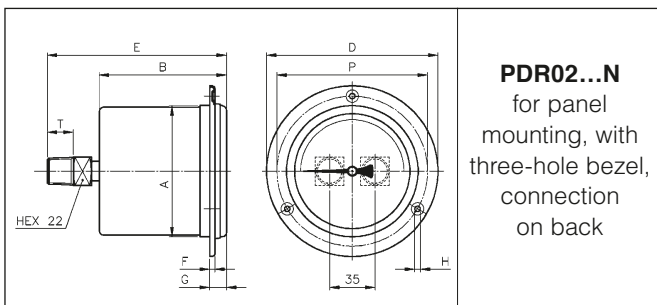
PDR02...L
for surface
mounting with
rim flange
on back side,
connection on
bottom

| | Housing diameter (mm) | |
|---|-----------------------|-----|
| | 100 | 160 |
| A | 101,5 | 162 |
| B | 100 | 102 |
| C | 14 | 18 |
| D | 132 | 196 |
| E | 90 | 120 |
| P | 116 | 178 |
| H | 4,5 | 6 |
| T | 20 | 20 |



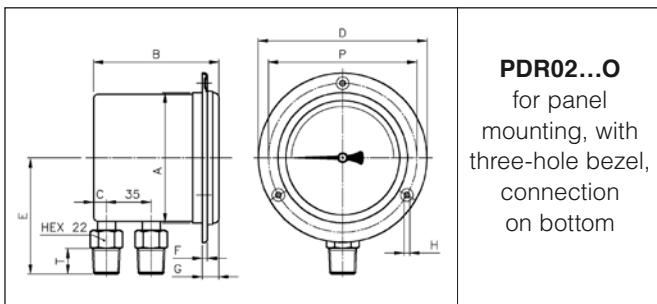
PDR02...M
for mounting
on piping,
connection
on back

| | Housing diameter (mm) | |
|---|-----------------------|-----|
| | 100 | 160 |
| A | 101,5 | 162 |
| B | 97 | 100 |
| E | 137 | 140 |
| T | 20 | 20 |



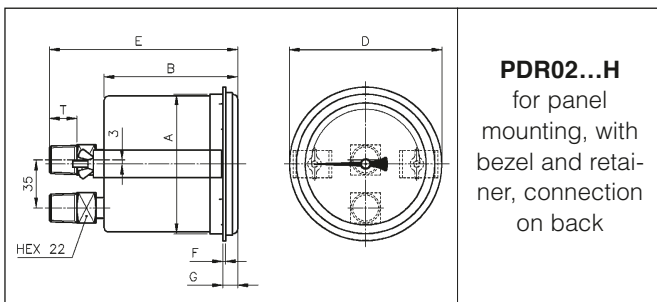
PDR02...N
for panel
mounting, with
three-hole bezel,
connection
on back

| | Housing diameter (mm) | |
|---|-----------------------|------|
| | 100 | 160 |
| A | 101,5 | 162 |
| B | 97 | 100 |
| D | 132 | 196 |
| E | 137 | 140 |
| F | 3,5 | 3 |
| G | 13 | 15,5 |
| H | 4,5 | 6 |
| P | 116 | 178 |
| T | 20 | 20 |



PDR02...O
for panel
mounting, with
three-hole bezel,
connection
on bottom


| | Housing diameter (mm) | |
|---|-----------------------|------|
| | 100 | 160 |
| A | 101,5 | 162 |
| B | 97 | 100 |
| C | 14 | 18 |
| D | 132 | 196 |
| E | 90 | 120 |
| F | 3,5 | 3 |
| G | 13 | 15,5 |
| H | 4,5 | 6 |
| P | 116 | 178 |
| T | 20 | 20 |



PDR02...H
for panel
mounting, with
bezel and retain-
er, connection
on back

| | Housing diameter (mm) | |
|---|-----------------------|-----|
| | 100 | 160 |
| A | 101,5 | 162 |
| B | 97 | 100 |
| D | 110 | 180 |
| E | 137 | 140 |
| F | 2 | 2 |
| G | 10,5 | 9 |
| T | 20 | 20 |

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