Bourdon tube pressure gauge, copper alloy
Stainless steel case, NS 100 and 160
Model 212.20

Applications
- Machine building and plant construction
- Building services
- Refrigeration technology
- For gaseous and liquid media that are not highly viscous or crystallising and will not attack copper alloy parts

Special features
- Durable and robust
- Cost-effective and reliable
- To combine with WIKA diaphragm seals
- Germanischer Lloyd approval
- Scale ranges up to 0 … 1,000 bar

Description
The mechanical model 212.20 Bourdon tube pressure gauge is constructed with a case from stainless steel and wetted parts from copper alloy.
The model 212.20 meets the requirements of the international industry standard EN 837-1 for Bourdon tube pressure gauges.

Frequent measuring points are found in the machine building, plant construction and building services industries. The model 212.20 can also be used in refrigeration applications.

The cases are available in nominal sizes of 100 and 160 mm and fulfil IP54 ingress protection. With an accuracy class of 1.0, this pressure gauge is suitable for the process industry.

The modular design enables a multitude of combinations of process connections, nominal sizes and scale ranges. This high variance enables universal use of the instrument in the industrial sector.

For mounting in control panels, the pressure gauges can be fitted with a mounting flange or with a triangular bezel and mounting bracket.
Options

- Other process connection
- Sealings (model 910.17, see data sheet AC 09.08)
- NS 100: Liquid filling (model 213.53, see data sheet PM 02.12)
- NS 160: Liquid filling (model 233.50, see data sheet PM 02.02)
- Increased medium temperature up to 100 °C with special soft solder
- Increased medium temperature up to 200 °C (see data sheet PM 02.02)
- Panel or surface mounting flange, stainless steel
- Panel mounting flange, polished stainless steel
- Triangular bezel, polished stainless steel, with clamp
- Bourdon tube pressure gauge with switch contacts, model PGS21, see data sheet PV 22.01

Special versions

For Refrigeration plants
NS 100: With temperature scale for refrigerants in °C, refrigerant: R717, R404A, R407C, R22 or R134a

Specifications

Design
EN 837-1

Nominal size in mm
100, 160

Accuracy class
1.0

Scale ranges
0 ... 0.6 to 0 ... 1,000 bar
or all other equivalent vacuum or combined pressure and vacuum ranges

Pressure limitation
Steady: Full scale value
Fluctuating: 0.9 x full scale value
Short time: 1.3 x full scale value

Permissible temperature
Ambient: -40 ... +60 °C
Medium: +80 °C maximum

Temperature effect
When the temperature of the measuring system deviates from the reference temperature (+20 °C): max. ±0.4 %/10 K of full scale value

Ingress protection per IEC/EN 60529
IP54

Process connection
Copper alloy
Lower back mount
G ½ B (male), SW 22

Pressure element
< 100 bar: Copper alloy, C-type
≥ 100 bar: Stainless steel 316L, helical type

Movement
Copper alloy, wear parts argentan

Dial
Aluminium, white, black lettering

Pointer
Aluminium, black

Case
Stainless steel

Window
Instrument glass

Ring
Bayonet ring, stainless steel
Approvals

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Certificates (option)

- 2.2 test report per EN 10204 (e.g. state-of-the-art manufacturing, material proof, indication accuracy)
- 3.1 inspection certificate per EN 10204 (e.g. indication accuracy)

Approvals and certificates, see website
Dimensions in mm

**Standard version**

**Lower mount (radial)**

**Lower back mount**

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<th>Dimensions in mm</th>
<th>Weight in kg</th>
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1) Plus 16 mm with scale ranges ≥ 100 bar

Process connection per EN 837-1/7.3

**Ordering information**

Model / Nominal size / Scale range / Process connection / Connection location / Options

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