

Bourdon Tube Pressure Gauges

for Clean Dry Air Applications
Safety Pressure Gauges

with Solid Baffle Wall acc. to EN 837-1 • Model 232.35

Pressure Gauges



Service intended

Suitable for gaseous, liquid and corrosive media, also in a corrosive environment, **for demanding high purity applications**. Suitable for all known CDA (Clean Dry Air) applications. Fields of application are especially the semiconductor and electronic industry, medical industry, gene technology, biotechnology and pharmaceutical industry.

Design

Safety pattern gauge with solid baffle wall in accordance with requirements and test conditions of EN 837-1 /9.7.2
leak proof, leak rate $\leq 10^{-8}$ mbar • l/s
pressure connection NPT thread (standard) resp. original VCR® Fitting with front sealing pressure connection

Nominal size

63 mm

Accuracy

2/1/2% of span (ASME B 40.1 Grade A) in compliance with accuracy class 1.6 per EN 837-1 /6

Scale ranges

0 ... 1 to 0 ... 400 bar (EN 837-1 /5)
0 ... 15 to 0 ... 6000 psi (ASME B 40.1)
or other equivalent units of pressure or vacuum

Working pressure

Steady: $\frac{3}{4}$ x of full scale value
Fluctuating: $\frac{2}{3}$ x of full scale value
Short time: full scale value

Operating temperature

Ambient: -40 ... +60 °C
Medium: +100 °C maximum

Temperature effect

When temperature of the pressure element deviates from reference temperature (+20 °C):
max. $\pm 0.4\%$ /10 K of true scale value

Ingress protection

IP 54 to EN 60 529 / IEC 529

Pressure connection

Material: stainless steel 316 L (1.4404),
lower mount (LM) or lower back mount (LBM),
surface finish $R_a \leq 0,6 \mu\text{m}$

- $\frac{1}{4}$ NPT - male thread (standard)
- VCR® compatible face seal fittings:
with union nut (female)
with male nut
- Fixed body 9/16-18 UNF
- Welding connection

Pressure element

Material: stainless steel 316 L (1.4404),
< 100 bar: C-type
 ≥ 100 bar: helical type



Model 232.35

- VCR® - union nut (female)

Movement

Stainless steel

Dial

White aluminium, with pointer stop pin
With black/red lettering, dual pressure scale (psi/bar),
red inscription "use no oil"

Pointer

Black aluminium pointer

Case

Stainless steel, with solid baffle wall (solid front) and blow-out back

Window

Laminated safety glass

Bezel ring

Cam ring (bayonet type), stainless steel

Cleaning

Cleaned for oxygen service to ASME B 40.1 (Level I)

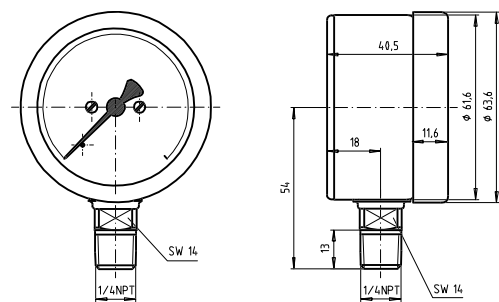
Optional extras

- Better finish for wetted parts (pressure connection) $R_a \leq 0,3 \mu\text{m}$
- Higher accuracy class 1.0
- Case and cam ring (bayonet type) electropolished
- 3-hole panel mounting flange, stainless steel, electropolished, (back entry only)
- Alarm contacts
 - Magnetic snap-action contact (**Model 821**)
 - Inductive contact (**Model 831**)
 - Electronic contact (**Model 830.1E**)
 - Reed contact (**Model 851**)

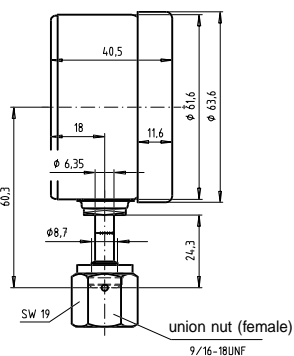
Dimensions [mm]

Radial bottom pressure entry (LM)

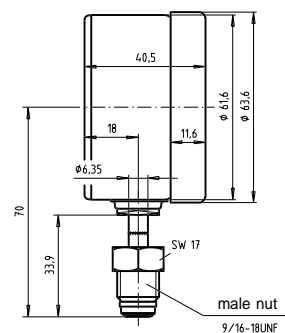
1/4 " NPT male



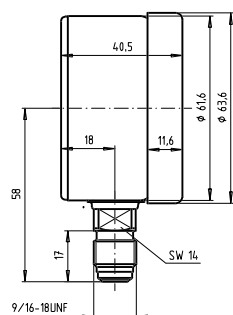
VCR® union nut (female) SS 4 VCR-1



VCR® male nut SS 4 VCR-4

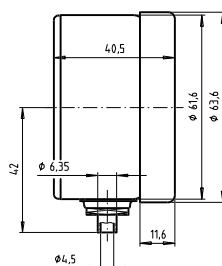


Fixed body 9/16-18 UNF



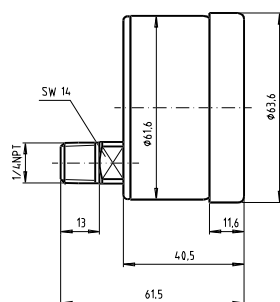
2121 271.01

Welding connection

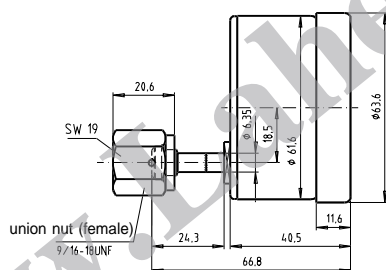


Lower back pressure entry (LBM)

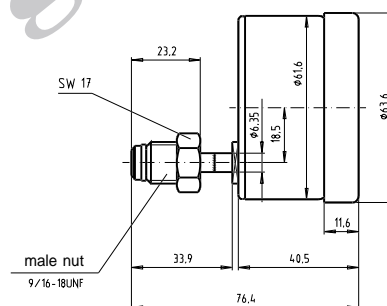
1/4 " NPT male



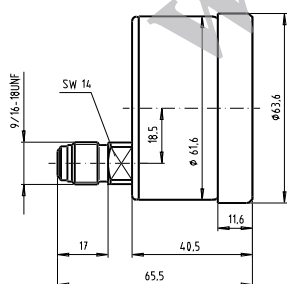
VCR® union nut (female) SS 4 VCR-1



VCR® male nut SS 4 VCR-4

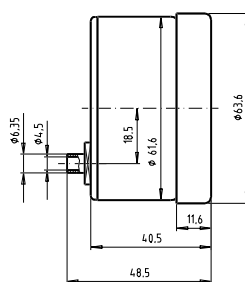


Fixed body 9/16-18 UNF



2121 379.01

Welding connection



Ordering information

State:

Pressure gauge model / Nominal size / Scale range / Size and location of connection / Optional extras required

Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.



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