

# Bourdon tube pressure gauges with switch contacts UHP, stainless steel version Model 230.15 with reed contact model 851.3

WIKA data sheet PV 22.05

**switchGAUGE**

## Applications

- For gaseous and liquid, also aggressive media for demanding high purity applications, also in aggressive ambience
- Suitable for all UHP (Ultra High Purity) applications
- Semiconductor and flat panel industry
- Gas distribution systems, medical gases
- Hook-up application

## Special features

- Built-in electrical switch contact (reed contact)
- VCR® compatible pressure connection threads
- Helium leak tested
- Electropolished case
- Process connection surface finish  $Ra \leq 0.25 \mu m$



**Bourdon tube pressure gauge with reed contact, UHP  
Model 230.15.2"**

## Description

**Nominal size**  
2"

**Accuracy class**  
Grade A to ASME B40.1

**Scale ranges**  
0 ... 4 to 0 ... 400 bar (0 ... 60 to 0 ... 6000 psi)  
or all other equivalent vacuum or combined pressure and vacuum ranges

**Pressure limitation**  
Steady: 3/4 x full scale value  
Short time: full scale value

**Operating temperature**  
Ambient: -20 ... +60 °C  
Medium: +100 °C maximum

### Temperature effect

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

### Ingress protection

IP 54 per EN 60529 / IEC 529

### Standard version

#### Process connection

Stainless steel 316L, lower mount (LM) or back mount, VCR® compatible threaded connection optionally:  
with union nut (female)  
with male nut  
or with male thread 9/16-18 UNF fixed  
Male thread 1/4 NPT

VCR® is a registered trademark of Swagelok

### Pressure element

Stainless steel 316L, C-type

Measuring system in crevice free design

Leak tightness: leak rate  $\leq 10^{-9}$  mbar · l / s

Test method: helium mass spectrometry

### Movement

Stainless steel

### Dial

Aluminium, white, black lettering

### Pointer

Aluminium, black

### Case

Stainless steel, electropolished

### Window

Polycarbonate,  
screw-fitted on case (twist lock)

### Cleaning

Specially cleaned per SEMI standard

### Switch contact

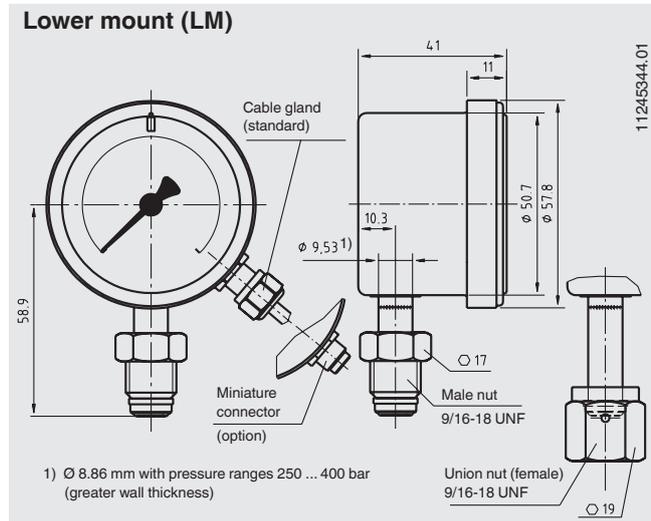
- Reed contact model 851.3; the switching function is identified by the index 3; 851.3 = the contact switches (change-over contact)
- Adjustment of switch point  
In order to adjust the switch point, the instrument has to be disconnected from the voltage supply and the window has to be unscrewed. The switches are set via the mark pointer on the dial's circumference. The set value of the switch point is adjustable up to 80 % of the scale range.
- Electrical load
  - max. switching voltage: DC / AC 24 V
  - max. contact rating: 10 W
  - max. current: 0.5 A
- Electrical connection via cable gland  
M8 x 1.25, cable outlet 3 m long, conductor cross section 0.14 mm<sup>2</sup>, flying leads, the terminal assignment is stated on the pressure gauge's connection plate

### Options

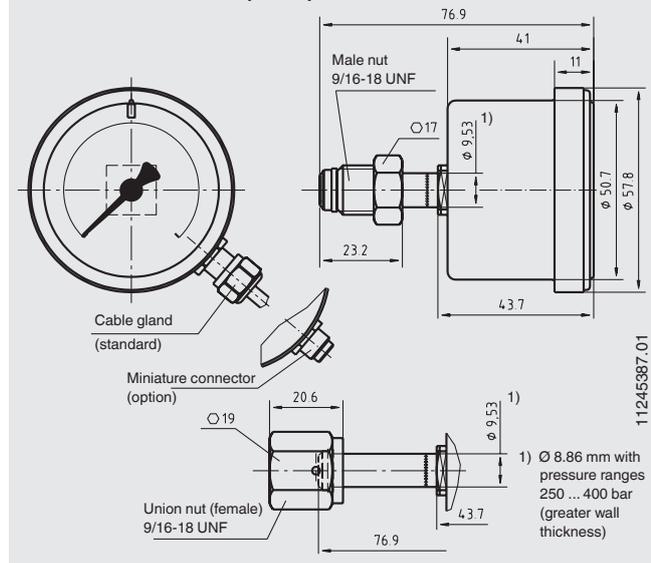
- Other process connection
- Electrical connection via miniature connector (Binder connector M8 x 1)
- Dual scale

### Dimensions in mm

#### Standard version



#### Centre back mount (CBM)



### Ordering information

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

The specifications given in this document represent the state of engineering at the time of publishing. We reserve the right to make modifications to the specifications and materials.

