

Pressure gauge with helical tube Miniature design, DirectDrive version Model 116.18.023

WIKA data sheet SP 01.21

Applications

- For measuring static pressures in dry gaseous media that will not attack copper alloy parts
- Indication of cylinder charging pressure
- Welding engineering
- Respiratory protective equipment
- Military engineering

Special features

- Ideal for integration solutions
- Very good vibration and shock resistance
- Compact, robust case
- Case and process connection one part
- Socket wrench mounting possible



Pressure gauge with helical tube, model 116.18.023

Description

The model 116.18 is a DirectDrive pressure gauge, which does not require a movement for the transmission of the tube deflection to the pointer. This measuring principle as well as the robust case design lead to a very good vibration and shock resistance. The helical tube enables an increased number of load cycles. In addition, the model 116.18 offers the security feature of having a lateral pressure relief and IP 67 ingress protection.

This pressure gauge is particularly suited for the operating conditions of pressure controllers and pressure valves on fixed and portable gas cylinders.

For tailored versions WIKA develops individual solutions together with its customers. A main focus of the development is to integrate pressure measuring systems directly into the customer product.

Standard version

Nominal size in mm

23

Accuracy ¹⁾

±5 % of full scale value

Scale ranges

0 ... 260 bar,
0 ... 315 bar,
0 ... 400 bar or
0 ... 450 bar

Pressure limitation

Steady: 3/4 x full scale value
Short time: Full scale value

Permissible temperature

Ambient: -40 ... +60 °C
Medium: -20 ... +60 °C
Storage: -40 ... +70 °C

Temperature effect

When the temperature of the measuring system deviates from the reference temperature (+20 °C):
≤ ±0.4 %/10 K of the span

Process connection

Copper alloy, nickel plated
Centre back mount (CBM)
M10 x 1.25 (male), 22 mm flats

Pressure element

Copper alloy, helical form

Case

Copper alloy, nickel plated

Dial

Aluminium, white, black lettering,
Indication angle 120 ° ±15 °

1) including non-linearity, hysteresis, zero offset and end value deviation

Window

Polycarbonate

Pointer

No separate pointer available; pointer is represented by tube end

Ingress protection

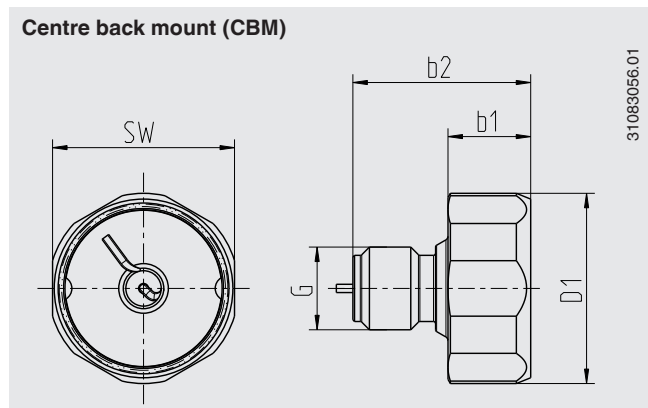
IP 67 per EN 60529 / IEC 60529

Options

- Accuracy ±2.5 % at defined scale value
- Other process connection
- Case copper alloy, natural finish
- Nominal size 27
- Other indication angles
- Phosphorescent dial
- Dial design to customer request

Dimensions in mm

Standard version



NS	Dimensions in mm					Weight in kg
	D1	b1	b2	G ²⁾	SW	
23	23	10	23	M10 x 1.25	22	0.022

2) Process connection per EN 837-1 / 7.3

Ordering information

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

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WIKAL
WIKAL Alexander Wiegand SE & Co. KG
Alexander-Wiegand-Straße 30
63911 Klingenberg/Germany
Tel. +49 9372 132-0
Fax +49 9372 132-406
info@wika.de
www.wika.de