

# Bourdon tube pressure gauge, miniature design

## OEM version

### Model 101.12

WIKA data sheet PM 01.27



For further approvals,  
see page 4

#### Applications

- For gaseous and liquid media that are not highly viscous or crystallising and will not attack copper alloy parts
- Pneumatics
- Compressors
- Medical equipment

#### Special features

- Small and compact, therefore ideal for integration solutions
- Scale range from 0 ... 4 bar to 0... 25 bar
- Process connection G 1/8 B, 1/8 NPT or R 1/8 male thread
- Nominal size of 26 mm [1.02"] or 27 mm [1.06"]
- One-piece case and process connection from glass-fibre reinforced polyamide (PA)



Fig. left: model 101.12, NS 26 [1.02"]

Fig. right: model 101.12, NS 27 [1.06"]

## Description

The miniature design of this pressure gauge is cost-effective and specifically aimed at OEM customers. This instrument is based on a reliable Bourdon tube measurement system. The one-piece case and process connection makes the instrument resistant to mechanical damage and ensures a low weight. The modular brass measuring system guarantees low temperature influence and high measuring stability. This proven design is ideal for applications with compact equipment requiring built-in small pressure gauges.

#### WIKA as an OEM supplier

Secure supply chains, high quality standards and a comprehensive range of services worldwide make WIKA a reliable OEM supplier – especially for large volume orders. Models 101.12.026 and 101.12.027 pressure gauges are available directly, in high quantities, with customer-specific process connections. Special adaptations can be realised together – including brand labelling.

## Specifications

Basic information	
Standard	In line with EN 837-1 → For information on the "Selection, installation, handling and operation of pressure gauges", see technical information IN 00.05.
Nominal size (NS)	<ul style="list-style-type: none"> <li>■ Ø 26 mm [1.02"]</li> <li>■ Ø 27 mm [1.06"]</li> </ul>
Connection location	Centre back mount
Window	Plastic, crystal-clear, snap-fitted in case
Case	Polyamide (PA)
Mounting	Customisable on request
Movement	Copper alloy

Measuring element	
Type of measuring element	Bourdon tube, C-type
Material	Copper alloy
Leak tightness	Leakage rate: $< 5 \cdot 10^{-3}$ mbar l/s

Accuracy specifications	
Accuracy class	Class 4.0
Temperature error	On deviation from the reference conditions at the measuring system: $\leq \pm 0.4$ % per 10 °C [ $\leq \pm 0.4$ % per 18 °F] of full scale value
Reference conditions	
Ambient temperature	+20 °C [+68 °F]

### Scale ranges

bar	
0 ... 4	0 ... 12
0 ... 6	0 ... 16
0 ... 10	0 ... 25

kg/cm <sup>2</sup>	
0 ... 4	0 ... 12
0 ... 6	0 ... 16
0 ... 10	0 ... 25

kPa	
0 ... 400	0 ... 1,600
0 ... 600	0 ... 2,500
0 ... 1,000	-

MPa	
0 ... 0.4	0 ... 1.6
0 ... 0.6	0 ... 2.5
0 ... 1	-

psi	
0 ... 60	0 ... 160
0 ... 100	0 ... 250
0 ... 150	-

Further details on: scale ranges	
<b>Special scale ranges</b>	→ Other scale ranges on request
<b>Unit</b>	<ul style="list-style-type: none"> <li>■ bar</li> <li>■ psi</li> <li>■ kg/cm<sup>2</sup></li> <li>■ kPa</li> <li>■ MPa</li> </ul>
<b>Dial</b>	
Scale colour	Black
Material	Plastic
Special scale	→ Other scales or customer-specific dials, e.g. with red mark, circular arcs or circular sectors, on request
<b>Instrument pointer</b>	Plastic, black
<b>Pointer stop pin</b>	At zero point

Process connection	
<b>Standard</b>	<ul style="list-style-type: none"> <li>■ EN 837-1</li> <li>■ ISO 7</li> <li>■ ANSI/B1.20.1</li> </ul>
<b>Size</b>	
EN 837-1	G 1/8 B, male thread
ANSI/B1.20.1	1/8 NPT, male thread
ISO 7	R 1/8, male thread
<b>Material (wetted)</b>	
Bourdon tube	Copper alloy
Process connection	Polyamide (PA)



- 1) A version with PTFE sealing at the thread is available  
2) Not available in combination with metric fine thread process connections  
3) Only available with process connections made of copper alloy

→ Other process connections on request

Operating conditions	
<b>Medium temperature</b>	Max. +60 °C [+140 °F]
<b>Ambient temperature</b>	0 ... 60 °C [32 ... 140 °F]
<b>Pressure limitation</b>	
Steady	3/4 x full scale value
Fluctuating	2/3 x full scale value
Short time	Full scale value
<b>Ingress protection per IEC/EN 60529</b>	IP41

## Approvals

### Optional approvals

Logo	Description	Region
	<b>PAC Kazakhstan</b> Metrology, measurement technology	Kazakhstan
-	<b>PAC Ukraine</b> Metrology, measurement technology	Ukraine
	<b>PAC Uzbekistan</b> Metrology, measurement technology	Uzbekistan

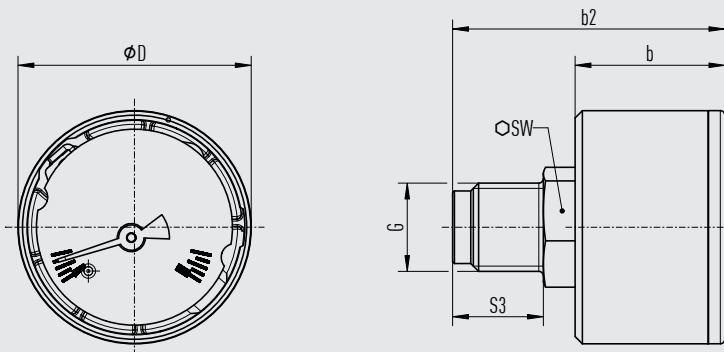
## Certificates (option)

Certificates	
<b>Certificates</b>	2.2 test report per EN 10204 (e.g. state-of-the-art manufacturing, indication accuracy)
<b>Recommended calibration interval</b>	1 year (dependent on conditions of use)

→ For approvals and certificates, see website

## Dimensions in mm [in]

Model 101.12.026

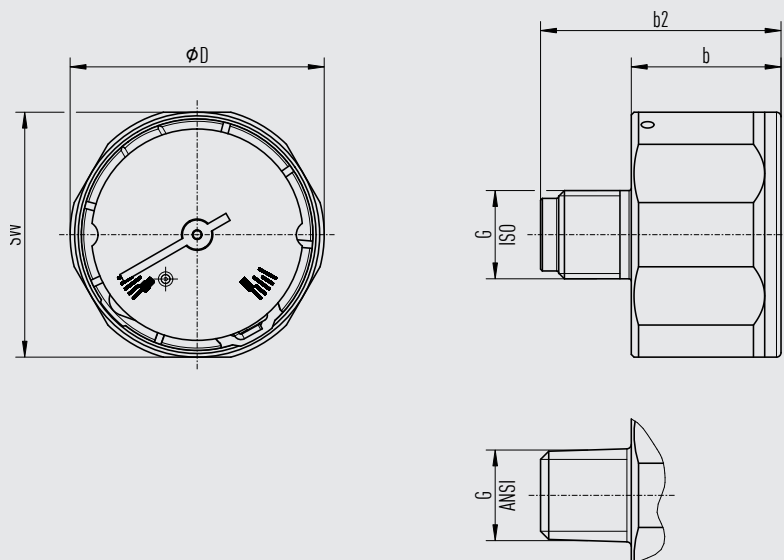


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Weight: approx. 22 g [0.78 oz]

G	Dimensions in mm [in]				
	D	b ±0.5 [0.02]	S3	b2 ±1 [0.04]	SW
G 1/8 B	26 [1.01]	16.5 [0.65]	10 [0.39]	30 [1.18]	12 [0.47]

Model 101.12.027



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Weight: approx. 50 g [1.76 oz]

G	Dimensions in mm [in]			
	D	b ±0.5 [0.02]	b2 ±1 [0.04]	SW
G 1/8 B	28 [1.10]	16.5 [0.65]	26.5 [1.04]	27 [1.06]
1/8 NPT	28 [1.10]	16.5 [0.65]	26.5 [1.04]	27 [1.06]
R 1/8	28 [1.10]	16.5 [0.65]	26.5 [1.04]	27 [1.06]

## Ordering information

Model / Scale range / Process connection / Options

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