

# Capsule pressure gauge, stainless steel

## For the process industry, high overload safety

### Model 632.51, NS 100 and 160

WIKA data sheet PM 06.06



for further approvals see  
page 3

#### Applications

- Pressure measurement at very low pressures
- For gaseous, aggressive media, also in aggressive environments
- Robust design and ingress protection IP54, suitable for outdoor use

#### Special features

- High overload safety up to 50 x full scale value
- Measuring chamber protected against unauthorised intervention
- Low measuring error and influence on function from medium pollution



Capsule pressure gauge, model 632.51

#### Description

##### Nominal size in mm

100, 160

##### Accuracy class

1.6

##### Scale ranges

0 ... 2.5 to 0 ... 100 mbar  
or all other equivalent vacuum or combined pressure and vacuum ranges

##### Pressure limitation

Steady: Full scale value  
Fluctuating: 0.9 x full scale value

##### Overload safety

50 x full scale value

##### Permissible 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.  $\pm 0.6\%$ /10 K of full scale value

##### Ingress protection per IEC/EN 60529

IP54

## Standard version

### Process connection (wetted)

Stainless steel 1.4571, lower mount, G ½ B (male), SW 22

### Pressure element (wetted)

Stainless steel 1.4571

### Measuring chamber (wetted)

Stainless steel 1.4571

### Sealing (wetted)

PTFE

### Movement

Stainless steel

### Dial

Aluminium, white, black lettering

### Pointer

Adjustable pointer, aluminium, black

### Zero point setting

Turning of a slotted screw at the adjustable pointer

### Case

Stainless steel, with blow-out device

### Window

Laminated safety glass

### Ring

Bayonet ring, stainless steel

### Mounting by means of:

- Rigid measuring lines
- Instrument mounting bracket for wall or pipe mounting (option)
- Mounting flange (option)

## Options

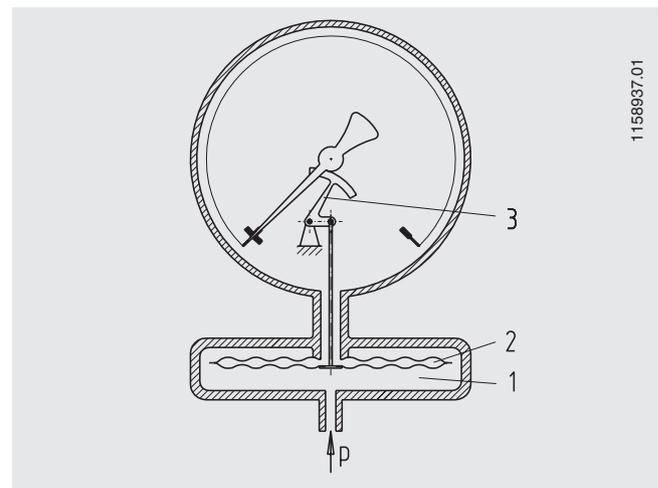
- Other process connection
- Sealings, see data sheet AC 09.08
- Instrument mounting bracket for wall or pipe mounting, see data sheet AC 09.07
- Panel or surface mounting flange (consider measuring chamber!)
- Indication accuracy class 0.6 or 1.0 <sup>1)</sup>
- Higher overload safety <sup>1)</sup>
- Capsule pressure gauge with switch contacts, see data sheet PV 26.06
- Capsule pressure gauge with output signal, see data sheet PV 16.06

1) After feasibility test

## Design and operating principle

- Pressure-sealed measuring chamber (1) with capsule measuring element
- The capsule element (2) is pressurised from outside and moves in strokes (deflection)
- The deflection is transmitted to the movement (3) and indicated
- The overload safety is achieved through the mutually supporting surfaces of both halves of the capsule element

## Illustration of the principle



## Approvals

Logo	Description	Country
 	<b>EU declaration of conformity</b> ATEX directive (option) Hazardous areas - Ex c Zone 1 gas [Ex II 2G c IIC TX X] Zone 21 dust [Ex II 2D c TX X]	European Union
	<b>EAC (option)</b> <ul style="list-style-type: none"> <li>■ EMC directive</li> <li>■ Pressure equipment directive</li> <li>■ Low voltage directive</li> <li>■ Hazardous areas</li> </ul>	Eurasian Economic Community
	<b>GOST (option)</b> Metrology, measurement technology	Russia
	<b>KazInMetr (option)</b> Metrology, measurement technology	Kazakhstan
-	<b>MTSCHS (option)</b> Permission for commissioning	Kazakhstan
	<b>BelGIM (option)</b> Metrology, measurement technology	Belarus
	<b>UkrSEPRO (option)</b> Metrology, measurement technology	Ukraine
	<b>Uzstandard (option)</b> Metrology, measurement technology	Uzbekistan
-	<b>CPA (option)</b> Metrology, measurement technology	China

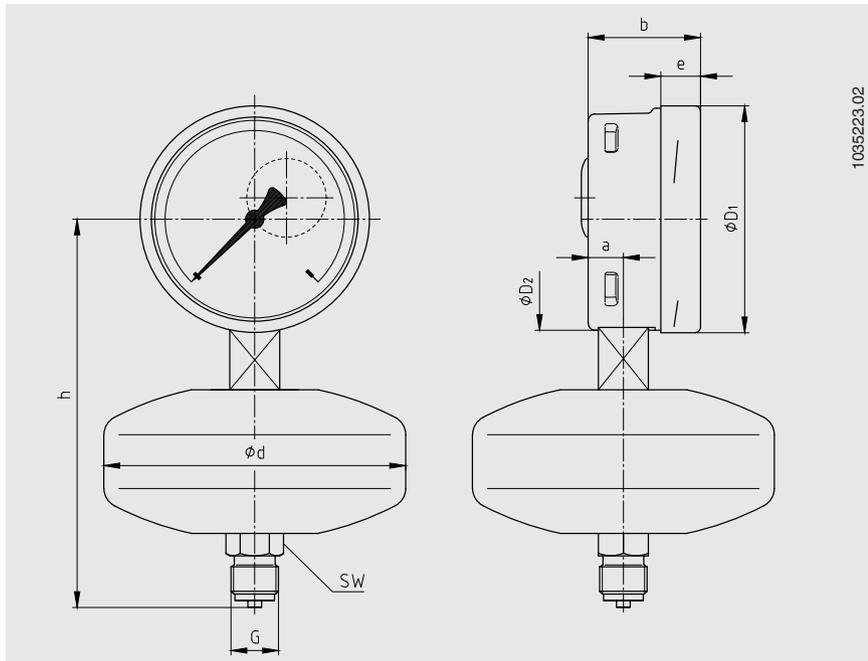
## Certificates (option)

- 2.2 test report
- 3.1 inspection certificate

Approvals and certificates, see website

## Dimensions in mm

### Standard version



NS	Dimensions in mm									Weight in kg
	a	b	D <sub>1</sub>	D <sub>2</sub>	d	e	G	h ±1	SW	
100	15.5	49.5	101	99	133	17.5	G ½ B	170	22	1.6
160	15.5	49.5	161	159	133	17.5	G ½ B	200	22	2.1

Process connection per EN 837-3/7.3

### Ordering information

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

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