



## Bourdon tube pressure gauges for chemical applications RF100Ch IK1

Part no. 87710402

Bourdon tube pressure gauge with electrical contacts for chemical applications type D4

### benefits

- measuring system fully welded to housing
- robust mechatronical pressure gauge
- Up to four switching contacts
- tightness-tested with helium
- GOSSTANDART-certified

### Application

For corrosive gaseous and liquid media which are not highly viscous and do not crystallise; suitable for corrosive environments.

### Technical Specifications

#### Type

D4

#### Nominal size

100

#### accuracy class (EN 837-1/6)

1.0

#### ranges (EN 837-1/5)

see ordering table

#### application area

≤ 600 bar: Full scale value  
 > 600 bar:  $\frac{3}{4}$  x full scale value  
 ≤ 600 bar: 0.9 x full scale value  
 > 600 bar:  $\frac{2}{3}$  x full scale value  
 ≤ 600 bar: 1.3 x full scale value  
 > 600 bar: Full scale value

### standard version

#### Connection

stainless steel 316 Ti/316 L, bottom  
 G $\frac{1}{2}$ B, SW22 (EN 837-1/7.3)

#### contact types

inductive contact (IK)

#### minimum range

IK Single  
 1 bar

#### Operating temperature range

Medium: max. 150 °C  
 Ambient: -20/+60 °C

#### Temperature performance

Indication error when the temperature of the measuring system deviates from the normal temperature of 20 °C:  
 at rising temperature approx.  $\pm 0.4$  %/10 K  
 falling temperature approx.  $\pm 0.4$  %/10 K  
 of full scale value

#### Degree of protection

IP 54 (EN 60529)

#### Electrical connection

Junction box

**Measuring element**

Bourdon tube, stainless steel 316 Ti/316 L  
≤ 60 bar: "C" type tube  
> 60 bar: helical tube

**movement**

Stainless steel

**Dial**

Aluminium, white  
Scaling: black

**Inductive contact (IK)****Supply voltage**

DC 5 – 25 V

**Current input**

≥ 2.1 mA

**Switching accuracy**

approx. 0.5 % of full scale value

**Options**

- Liquid filling (silicone oil)
- back flange
- 3-hole fixing, panel mounting bezel
- throttle screw
- Connector
- special scales
- other process connections

**Pointer**

Aluminium, black

**Housing**

Stainless steel 304, with blow-out

**bayonet bezel**

Stainless steel 304

**window**

Plastic (Makrolon), with contact adjustment lock

**Operating temperature range**

-20/+70 °C or corresponding to the respective measuring instruments

**Adjustment range**

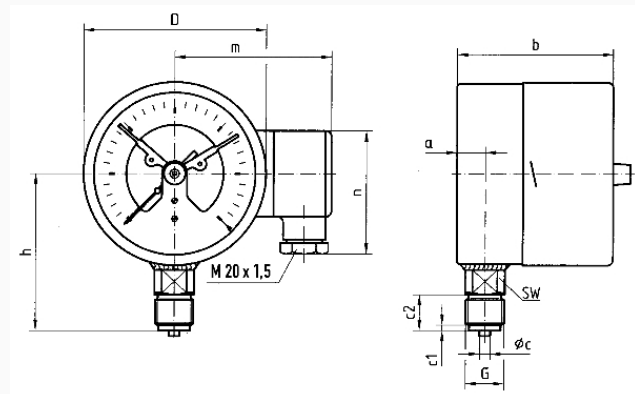
5–95 % measuring range of gauge

**Options**

- contact systems with safety integrity level SIL 2

## Technical Drawings

### Bottom connection



### Dimensions (mm)

| NG  | a    | b  | b1   | Øc | c1 | c2 | D        | G   | h   | m  | n  | SW |
|-----|------|----|------|----|----|----|----------|-----|-----|----|----|----|
| 100 | 15,6 | 87 | 90,5 | 6  | 3  | 20 | 101,5G½B | 86  | 92  | 72 | 22 |    |
| 160 | 17,5 | 97 | 100  | 6  | 3  | 20 | 161,5G½B | 116 | 122 | 72 | 22 |    |

## Versions

| Range   | Mounting type | Type                | Part number |
|---------|---------------|---------------------|-------------|
| 0/1 bar | direct        | RF100Ch IK1<br>D402 | 87710402    |

- in-stock items
- Non-stock items