



## Bourdon tube pressure gauges for industrial applications with electrical contact type D4



### Benefits

- Robust stainless steel housing
- Excellent readability
- Up to four switching contacts
- Available with MK, EK, IK

### Application

For gaseous and liquid media which are not highly viscous, do not crystallise and do not attack copper alloys.

### 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

Static load

≤ 600 bar: Full scale value  
> 600 bar: ¾ x full scale value

Dynamic load

≤ 600 bar: 0.9 x full scale value  
> 600 bar: ¾ x full scale value

Short-term

≤ 600 bar: 1.3 x full scale value  
> 600 bar: Full scale value

#### Contact types

Inductive contact (IK)

Magnetic spring contact (MK)

#### Minimum range

Contact

IK Single: 1 bar  
IK dual: 1 bar  
MK Single: 1.6 bar  
MK dual: 1.6 bar

#### Operating temperature range

Medium: Max. 60 °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. ± 0.4 %/10 K  
falling temperature approx. ± 0.4 %/10 K  
of full scale value

#### Degree of protection

IP 54 (EN 60529)



## Standard version

### Connection

Brass, bottom  
G½B, SW22 (EN 837-1/7.3)

### Electrical connection

Cable gland M12 x 1.5  
Cable 1 m

### Measuring element

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

### Movement

Brass

### Dial

Aluminium, white  
Scaling black

### Pointer

Aluminium, black

### Housing

Stainless steel 304, with blow-out

### Bayonet type bezel

Stainless steel 304

### Window

Plastic (Makrolon), with contact adjustment lock

### Inductive contact (IK)

### Supply voltage

DC 5 – 25 V

### Current input

≥ 2.1 mA

## Options

- Back flange
- 3-hole fixing, panel mounting bezel
- Damping screw
- Junction box
- Connector
- Special scales
- Other process connections

## Technical drawings

### Switching accuracy

Approx. 0.5 % of full scale value

### 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

### Magnetic spring contact (MK)

### Supply voltage

Max. AC/DC 250 V

### Making current and breaking current

Max. 1 A

### Continuous current

Max. 0.6 A

### Switch rating

Max. 50 VA, max. 30 W

### Contact

Ag80 Ni20 Au 10 µm

### Switching accuracy

Approx. 2–5 % of full scale value

### Operating temperature range

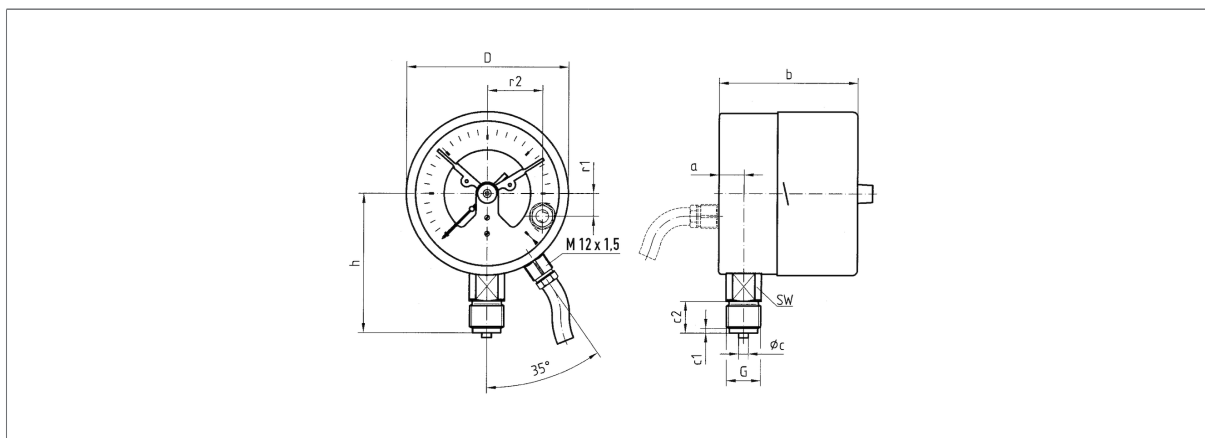
-20/+70 °C or corresponding to the respective measuring instruments

### Adjustment range

5–95 % measuring range of gauge



### Bottom connection



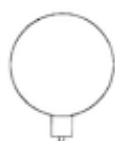
### Dimensions (mm)

NG	a	b	b1	∅C	c1	c2	D	G	h	r1	r2	SW
100	15,6	87	90,5	6	3	20	101,5	G½B	86	14	34,5	22
160	17,5	97	100	6	3	20	161,5	G½B	116	14	34,5	22

### Versions

#### RF100I IK1 D401

Housing ∅	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/0 bar	RF100I IK1 D401	87701401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+0.6 bar	RF100I IK1 D401	87702401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+1.5 bar	RF100I IK1 D401	87703401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+3 bar	RF100I IK1 D401	87704401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+5 bar	RF100I IK1 D401	87705401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+9 bar	RF100I IK1 D401	87706401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+15 bar	RF100I IK1 D401	87707401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/0.6 bar	RF100I IK1 D401	87709401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1 bar	RF100I IK1 D401	87710401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1.6 bar	RF100I IK1 D401	87711401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/2.5 bar	RF100I IK1 D401	87712401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/4 bar	RF100I IK1 D401	87713401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/6 bar	RF100I IK1 D401	87714401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/10 bar	RF100I IK1 D401	87715401



Blue part no. = in-stock items



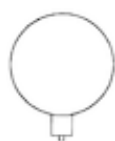
Housing <sup>⊗</sup>	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/16 bar	RF100I IK1 D401	87716401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/25 bar	RF100I IK1 D401	87717401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/40 bar	RF100I IK1 D401	87718401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/60 bar	RF100I IK1 D401	87719401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/100 bar	RF100I IK1 D401	87720401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/160 bar	RF100I IK1 D401	87721401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/250 bar	RF100I IK1 D401	87722401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/400 bar	RF100I IK1 D401	87723401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/600 bar	RF100I IK1 D401	87724401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1,000 bar	RF100I IK1 D401	87725401

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#### RF100I IK2 D401

Housing <sup>⊗</sup>	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/0 bar	RF100I IK2 D401	87751401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+0.6 bar	RF100I IK2 D401	87752401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+1.5 bar	RF100I IK2 D401	87753401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+3 bar	RF100I IK2 D401	87754401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+5 bar	RF100I IK2 D401	87755401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+9 bar	RF100I IK2 D401	87756401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+15 bar	RF100I IK2 D401	87757401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/0.6 bar	RF100I IK2 D401	87759401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1 bar	RF100I IK2 D401	87760401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1.6 bar	RF100I IK2 D401	87761401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/2.5 bar	RF100I IK2 D401	87762401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/4 bar	RF100I IK2 D401	87763401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/6 bar	RF100I IK2 D401	87764401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/10 bar	RF100I IK2 D401	87765401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/16 bar	RF100I IK2 D401	87766401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/25 bar	RF100I IK2 D401	87767401

Blue part no. = in-stock items





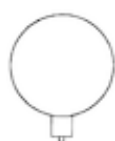
Housing <sup>⊗</sup>	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/40 bar	RF100I IK2 D401	87768401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/60 bar	RF100I IK2 D401	87769401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/100 bar	RF100I IK2 D401	87770401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/160 bar	RF100I IK2 D401	87771401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/250 bar	RF100I IK2 D401	87772401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/400 bar	RF100I IK2 D401	87773401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/600 bar	RF100I IK2 D401	87774401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1,000 bar	RF100I IK2 D401	87775401

Blue part no. = in-stock items

### RF100I MK1 D401

Housing <sup>⊗</sup>	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+0.6 bar	RF100I MK1 D401	87602401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+1.5 bar	RF100I MK1 D401	87603401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+3 bar	RF100I MK1 D401	87604401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+5 bar	RF100I MK1 D401	87605401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+9 bar	RF100I MK1 D401	87606401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+15 bar	RF100I MK1 D401	87607401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1.6 bar	RF100I MK1 D401	87611401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/2.5 bar	RF100I MK1 D401	87612401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/4 bar	RF100I MK1 D401	87613401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/6 bar	RF100I MK1 D401	87614401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/10 bar	RF100I MK1 D401	87615401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/16 bar	RF100I MK1 D401	87616401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/25 bar	RF100I MK1 D401	87617401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/40 bar	RF100I MK1 D401	87618401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/60 bar	RF100I MK1 D401	87619401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/100 bar	RF100I MK1 D401	87620401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/160 bar	RF100I MK1 D401	87621401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/250 bar	RF100I MK1 D401	87622401

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Housing <sup>⊗</sup>	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/400 bar	RF100I MK1 D401	87623401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/600 bar	RF100I MK1 D401	87624401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1,000 bar	RF100I MK1 D401	87625401

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#### RF100I MK2 D401

Housing <sup>⊗</sup>	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+0.6 bar	RF100I MK2 D401	87652401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+1.5 bar	RF100I MK2 D401	87653401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+3 bar	RF100I MK2 D401	87654401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+5 bar	RF100I MK2 D401	87655401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+9 bar	RF100I MK2 D401	87656401
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+15 bar	RF100I MK2 D401	87657401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1.6 bar	RF100I MK2 D401	87661401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/2.5 bar	RF100I MK2 D401	87662401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/4 bar	RF100I MK2 D401	87663401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/6 bar	RF100I MK2 D401	87664401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/10 bar	RF100I MK2 D401	87665401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/16 bar	RF100I MK2 D401	87666401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/25 bar	RF100I MK2 D401	87667401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/40 bar	RF100I MK2 D401	87668401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/60 bar	RF100I MK2 D401	87669401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/100 bar	RF100I MK2 D401	87670401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/160 bar	RF100I MK2 D401	87671401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/250 bar	RF100I MK2 D401	87672401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/400 bar	RF100I MK2 D401	87673401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/600 bar	RF100I MK2 D401	87674401
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1,000 bar	RF100I MK2 D401	87675401

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