



## Bourdon tube pressure gauges for chemical applications with electrical contact 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

Static load

≤ 600 bar: Full scale value  
> 600 bar: ¼ x full scale value

Dynamic load

≤ 600 bar: 0.9 x full scale value  
> 600 bar: ⅔ 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. 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. ± 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

Stainless steel 316 Ti/316 L, bottom  
G½B, SW22 (EN 837-1/7.3)

### 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

### 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

- Liquid filling (silicone oil)
- Back flange
- 3-hole fixing, panel mounting bezel
- Damping screw
- 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

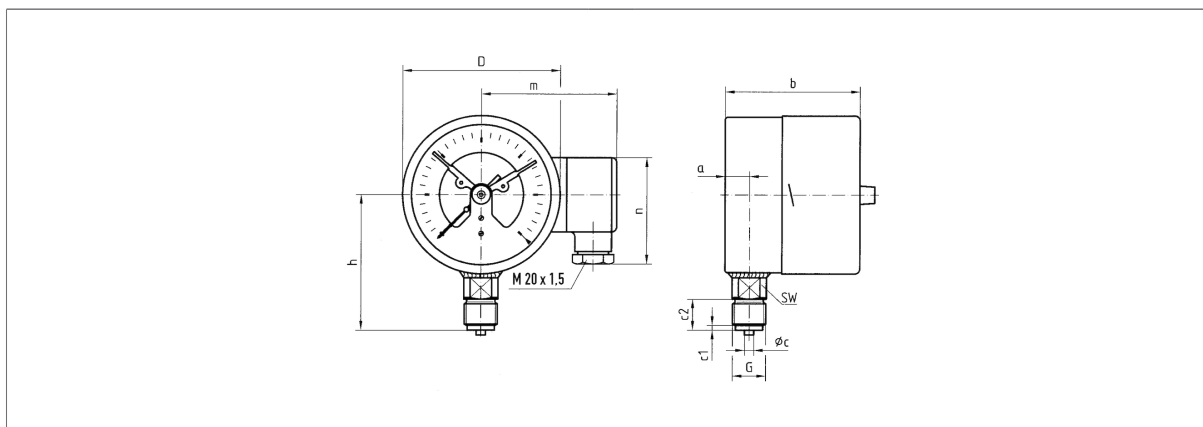
-20/+70 °C or corresponding to the respective measuring instruments

### Adjustment range

5–95 % measuring range of gauge



### Bottom connection



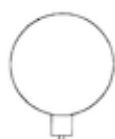
### Dimensions (mm)

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

### Versions

#### RF100Ch IK1 D402

Housing ∅	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/0 bar	RF100Ch IK1 D402	87701402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+0.6 bar	RF100Ch IK1 D402	87702402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+1.5 bar	RF100Ch IK1 D402	87703402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+3 bar	RF100Ch IK1 D402	87704402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+5 bar	RF100Ch IK1 D402	87705402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+9 bar	RF100Ch IK1 D402	87706402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+15 bar	RF100Ch IK1 D402	87707402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/0.6 bar	RF100Ch IK1 D402	87709402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1 bar	RF100Ch IK1 D402	87710402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1.6 bar	RF100Ch IK1 D402	87711402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/2.5 bar	RF100Ch IK1 D402	87712402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/4 bar	RF100Ch IK1 D402	87713402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/6 bar	RF100Ch IK1 D402	87714402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/10 bar	RF100Ch IK1 D402	87715402



Blue part no. = in-stock items



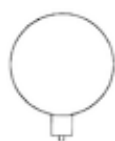
Housing <sup>⊗</sup>	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/16 bar	RF100Ch IK1 D402	87716402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/25 bar	RF100Ch IK1 D402	87717402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/40 bar	RF100Ch IK1 D402	87718402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/60 bar	RF100Ch IK1 D402	87719402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/100 bar	RF100Ch IK1 D402	87720402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/160 bar	RF100Ch IK1 D402	87721402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/250 bar	RF100Ch IK1 D402	87722402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/400 bar	RF100Ch IK1 D402	87723402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/600 bar	RF100Ch IK1 D402	87724402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1,000 bar	RF100Ch IK1 D402	87725402

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#### RF100Ch IK2 D402

Housing <sup>⊗</sup>	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/0 bar	RF100Ch IK2 D402	87751402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+0.6 bar	RF100Ch IK2 D402	87752402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+1.5 bar	RF100Ch IK2 D402	87753402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+3 bar	RF100Ch IK2 D402	87754402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+5 bar	RF100Ch IK2 D402	87755402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+9 bar	RF100Ch IK2 D402	87756402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+15 bar	RF100Ch IK2 D402	87757402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/0.6 bar	RF100Ch IK2 D402	87759402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1 bar	RF100Ch IK2 D402	87760402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1.6 bar	RF100Ch IK2 D402	87761402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/2.5 bar	RF100Ch IK2 D402	87762402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/4 bar	RF100Ch IK2 D402	87763402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/6 bar	RF100Ch IK2 D402	87764402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/10 bar	RF100Ch IK2 D402	87765402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/16 bar	RF100Ch IK2 D402	87766402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/25 bar	RF100Ch IK2 D402	87767402

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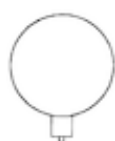
Housing <sup>⊗</sup>	Connection	Alignment	Housing	Accuracy class	Range	Type	Part no.
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/40 bar	RF100Ch IK2 D402	87768402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/60 bar	RF100Ch IK2 D402	87769402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/100 bar	RF100Ch IK2 D402	87770402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/160 bar	RF100Ch IK2 D402	87771402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/250 bar	RF100Ch IK2 D402	87772402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/400 bar	RF100Ch IK2 D402	87773402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/600 bar	RF100Ch IK2 D402	87774402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1,000 bar	RF100Ch IK2 D402	87775402

Blue part no. = in-stock items

### RF100Ch MK1 D402

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	RF100Ch MK1 D402	87602402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+1.5 bar	RF100Ch MK1 D402	87603402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+3 bar	RF100Ch MK1 D402	87604402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+5 bar	RF100Ch MK1 D402	87605402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+9 bar	RF100Ch MK1 D402	87606402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+15 bar	RF100Ch MK1 D402	87607402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1.6 bar	RF100Ch MK1 D402	87611402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/2.5 bar	RF100Ch MK1 D402	87612402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/4 bar	RF100Ch MK1 D402	87613402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/6 bar	RF100Ch MK1 D402	87614402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/10 bar	RF100Ch MK1 D402	87615402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/16 bar	RF100Ch MK1 D402	87616402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/25 bar	RF100Ch MK1 D402	87617402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/40 bar	RF100Ch MK1 D402	87618402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/60 bar	RF100Ch MK1 D402	87619402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/100 bar	RF100Ch MK1 D402	87620402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/160 bar	RF100Ch MK1 D402	87621402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/250 bar	RF100Ch MK1 D402	87622402

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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	RF100Ch MK1 D402	87623402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/600 bar	RF100Ch MK1 D402	87624402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1,000 bar	RF100Ch MK1 D402	87625402

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#### RF100Ch MK2 D402

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	RF100Ch MK2 D402	87652402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+1.5 bar	RF100Ch MK2 D402	87653402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+3 bar	RF100Ch MK2 D402	87654402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+5 bar	RF100Ch MK2 D402	87655402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+9 bar	RF100Ch MK2 D402	87656402
100 mm	G½B	Bottom	Stainless steel 304	1,0	-1/+15 bar	RF100Ch MK2 D402	87657402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1.6 bar	RF100Ch MK2 D402	87661402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/2.5 bar	RF100Ch MK2 D402	87662402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/4 bar	RF100Ch MK2 D402	87663402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/6 bar	RF100Ch MK2 D402	87664402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/10 bar	RF100Ch MK2 D402	87665402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/16 bar	RF100Ch MK2 D402	87666402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/25 bar	RF100Ch MK2 D402	87667402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/40 bar	RF100Ch MK2 D402	87668402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/60 bar	RF100Ch MK2 D402	87669402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/100 bar	RF100Ch MK2 D402	87670402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/160 bar	RF100Ch MK2 D402	87671402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/250 bar	RF100Ch MK2 D402	87672402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/400 bar	RF100Ch MK2 D402	87673402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/600 bar	RF100Ch MK2 D402	87674402
100 mm	G½B	Bottom	Stainless steel 304	1,0	0/1,000 bar	RF100Ch MK2 D402	87675402

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