

# Bourdon Tube Pressure Gauges

Crimped-on ring case stainless steel

RChg 50 – 3

RChgG 50 – 3

## Standard Versions

Information on general and metrological features (e.g. load limits/temperature resistance) and standard pressure ranges/scale divisions can be found in model overview 1000.

### Accuracy (DIN EN 837-1)

Class 1.6

Class 2.5 for pressure range 0 – 600 bar (0 – 10000 psi)

### Case

With polished crimped-on ring, stainless steel 304 (1.4301)

### Degree of Protection (DIN EN 60529 / IEC 60529)

IP54

IP65 for model RChgG with closed blow-out plug

### Blow-out Device

Blow-out plug at the top of the case coverage

### Case Ventilation

Via blow-out plug, ventilation for internal pressure compensation, required for measuring spans  $\leq 10$  bar ( $\leq 160$  psi), and also recommended for other pressure ranges if the operating conditions permit

### Case Filling

Model RChgG glycerin

### Nominal Case Size

50 mm (2")

### Wetted Parts

Connection	stainless steel 316L (1.4404)
Bourdon tube	stainless steel 316L (1.4404)
	gas-shielded arc welding
	$\leq 100$ bar (1500 psi) c-form
	$\geq 160$ bar (2000 psi) helical form

### Case Configuration

Connection	screwed
Position of the connection	- bottom connection - centre back connection (rm)
Mounting device	- without - for centre back connection - front flange for panel mounting (rmFr) - u-clamp for panel mounting (rmBFr)

### Pressure Range (DIN EN 837-1)

0 – 1 bar to 0 – 600 bar (0 – 15 psi to 0 – 10000 psi)

### Process Connection

G 1/4 B, 1/4" NPT, G 1/8 B or 1/8" NPT

### Window

Polycarbonate

### Movement

Stainless steel



### Dial

Aluminum white, scale black

### Pointer

Aluminum black

### Safety Category According to DIN EN 837-1

S1 pressure gauges with blow-out device

## Ordering Information, Standard Pressure Ranges, Options

See pages 3 and 4

## Further Options

- Ultrapure gas version (see technical information sheet T01-000-033)
- Position of connection radial at 3 o'clock, 9 o'clock, 12 o'clock or other than vertical installation (90°) for unfilled models

## Special Versions Upon Request

- Other process connections
- Other pressure ranges and/or special scales, e.g. dual scale bar / psi, coloured fields or ranges, dial inscriptions, negative scale
- Other position of connection
- Increased degree of protection, e.g. IP65 without case filling
- Other case fillings
- Certificates and approvals, e.g. GOST (see also website)

## Accessories

See catalogue heading 11

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# Case Configurations, Code Letters, Dimensional Data and Weight, Blow-out Device

Bottom Connection	Centre Back Connection
without mounting device	
<p>without code letters</p>	<p>code letters <b>rm</b></p>
with front flange for panel mounting	
	<p>code letters <b>rmFr</b></p> <p>recommended panel cut out <math>\varnothing 54 \pm 0.3 \text{ mm}</math> (2.13 <math>\pm</math> 0.012")</p>
with u-clamp for panel mounting	
	<p>code letters <b>rmBFr</b></p> <p>recommended panel cut out <math>\varnothing 51 \pm 0.3 \text{ mm}</math> (2.01 <math>\pm</math> 0.012")</p>

Dimensional Data (mm / inch) and Weight (kg / lb)																			
NCS	a	b	b1	c	c1	c2	c3	D	D1	D2	d1	d2	d3	G	G1	g	g1	h <sup>±1</sup>	h1 <sup>±1</sup>
50 2"	10.5 0.41	29 1.14	31 1.22	5	2	13	13	54 2.13	48.5 1.91	51 2.01	60 2.36	71 2.8	3.5 0.14	G 1/4" B	1/4" NPT	50	50	45	45
				0.2		0.51	0.51							1.97	1.97	1.77	1.77	G 1/8" B	1/8" NPT
				4	0.08	10	10									1.85	1.85	1.65	1.65

  

s1	s3	s4	SW	approx. weight <sup>1)</sup>	
				RChg	RChgG
1	8	7	14	0.09	0.13
0.04	0.31	0.28	0.55	0.2	0.29

**Blow-out Device**

Blow-out plug no. 19

**Optional**

Blow-out plug no. 24 (reclosable, IP65)

<sup>1)</sup> data for version without mounting device

## Ordering Information

Basic Model	Bourdon Tube Pressure Gauge with Crimped-on Ring Case		RChg
Case filling	without		without code letters
	glycerin		<b>G</b>
	fillable version		<b>(G)</b>
Nominal case size	case Ø 50 mm (2")		<b>50</b>
Wetted material	stainless steel		<b>- 3</b>
Case configuration	case / connection	screwed	without code letters
	position of the connection	bottom connection	without code letters
		centre back connection	<b>rm</b>
	mounting device	without	without code letters
front flange for panel mounting		<b>Fr</b>	
u-clamp for panel mounting		<b>BFr</b>	
Pressure ranges	-1 200 / 0 mbar	-30" Hg - 0 psi	
	-1 / 0 bar		
	-1 / +0.6 bar	-30" Hg - 15 psi	
	-1 / +1.5 bar	-30" Hg - 30 psi	
	-1 / +3 bar	-30" Hg - 60 psi	
	-1 / +5 bar	-30" Hg - 100 psi	
	-1 / +9 bar	-30" Hg - 160 psi	
	-1 / +15 bar	-30" Hg - 200 psi	
		-30" Hg - 300 psi	
	0 - 1 bar	0 - 15 psi	
	0 - 1.6 bar		
	0 - 2.5 bar	0 - 30 psi	
	0 - 4 bar	0 - 60 psi	
	0 - 6 bar	0 - 100 psi	<b>e.g. 0 - 6 bar</b>
	0 - 10 bar	0 - 160 psi	
	0 - 16 bar	0 - 200 psi	
		0 - 300 psi	
	0 - 25 bar	0 - 400 psi	
	0 - 40 bar	0 - 600 psi	
	0 - 60 bar	0 - 800 psi	
		0 - 1 000 psi	
	0 - 100 bar	0 - 1 500 psi	
	0 - 160 bar	0 - 2 000 psi	
		0 - 3 000 psi	
0 - 250 bar	0 - 4 000 psi		
	0 - 5 000 psi		
0 - 400 bar	0 - 6 000 psi		
0 - 600 bar	0 - 10 000 psi		
Process connection	standard thread	G ¼ B	<b>G ¼ B</b>
		¼" NPT	<b>¼" NPT</b>
		G ½ B	<b>G ½ B</b>
		½" NPT	<b>½" NPT</b>
	options	M 12x1.5	<b>M 12x1.5</b>
Options	see page 4		

Example

RChg 50 - 3 rmFr, 0 - 6 bar, ¼" NPT

## Ordering Information, Further Options

These options are to be ordered in written form. Please contact us to ensure compatibility when combining options.

<b>Red mark</b>	on the dial
<b>Receiver gauge</b> 0.2 – 1 bar (3 – 15 psi) scale 0 – 100 %	linear or square
<b>Special adjustment</b>	reference points = odd values, e.g. 100 KN = 8.735 bar
<b>Window</b>	instrument glass
<b>Blow-out plug no. 24</b>	reclosable, IP65
<b>Case polished</b>	
<b>Leak test of the measuring unit</b>	with helium leak detection up to $10^{-9}$ mbar l/s
<b>Wetted parts free of grease and oil</b>	adjustment $\leq$ 250 bar (3000 psi) with dry air, $>$ 250 bar (3000 psi) with distilled water dial marking: symbol crossed out oil can
<b>Oxygen version<sup>1)</sup></b>	free of grease and oil as above, additional restrictor screw in the inlet port, orifice $\varnothing$ 0.3 mm (0.01"), dial inscription: oxygen no version according to DIN EN 837-1 <sup>2)</sup>
<b>Silicone-free version</b>	
<b>Restrictor screw</b> in the pressure inlet port material: stainless steel	orifice $\varnothing$ 0.6 mm (0.02") orifice $\varnothing$ 0.3 mm (0.01")
<b>Instrument tag</b>	stainless steel plate 12 x 55 mm (0.47 x 2.17"), wire mounting sticker on the case coverage

**Special Versions:** Please describe your requirements in cleartext!

<sup>1)</sup> for instruments without case filling

<sup>2)</sup> DIN EN 837-1 in connection with oxygen version requires safety category S2 or S3