

Bourdon Tube Pressure Gauges

Crimped-on ring case stainless steel

RChg 50 – 3v

RChgG 50 – 3v

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)

IP65 (> 10 bar (> 160 psi))

IP54 (≤ 10 bar (≤ 160 psi)) with cut off blow-out plug no. 19

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 ≤ 10 bar (≤ 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
	≤ 100 bar (1500 psi) c-form
	≥ 160 bar (2000 psi) helical form

Case Configuration

Connection	welded
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 ¼ B, ¼" NPT, G ½ B or ½" NPT

Window

Instrument glass

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)
- S2 safety pressure gauge with polycarbonate window
- Position of connection radial at 3 o'clock, 9 o'clock, 12 o'clock or other than vertical installation (90°) for unfilled models
- IP65 (≤ 10 bar (≤ 160 psi)) blow-out plug no. 24

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
- Case parts 316L (1.4404)
- Other case fillings
- Certificates and approvals, e.g. GOST (see also website)

Accessories

See catalogue heading 11

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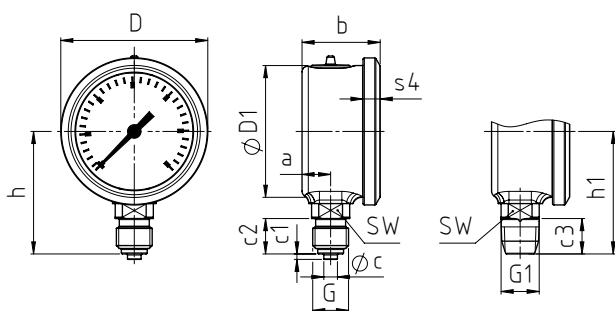
Case Configurations, Code Letters, Dimensional Data and Weight, Blow-out Device

Bottom Connection

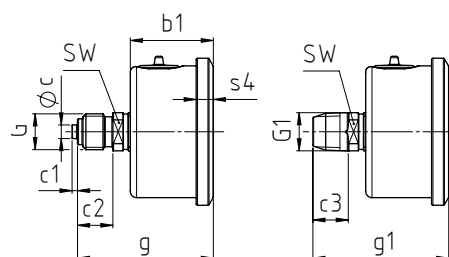
Centre Back Connection

without mounting device

without code letters

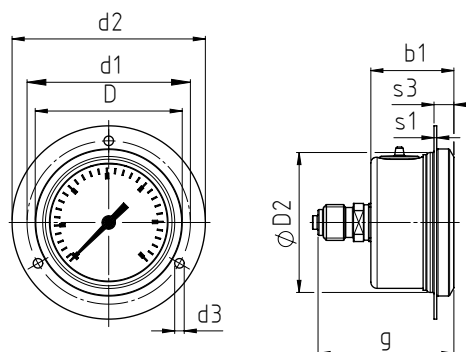


code letters **rm**



with front flange for panel mounting

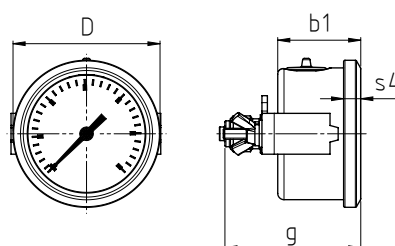
code letters **rmFr**



recommended panel cut out $\varnothing 54 \pm 0.3 \text{ mm}$ ($2.13 \pm 0.012''$)

with u-clamp for panel mounting

code letters **rmBFr**



recommended panel cut out $\varnothing 51 \pm 0.3 \text{ mm}$ ($2.01 \pm 0.012''$)

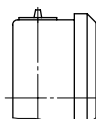
Dimensional Data (mm / inch) and Weight (kg / lb)

NCS	a	b	b1	c	c1	c2	c3	D	D1	D2	d1	d2	d3	G	G1	g	g1	h ^{±1}	h1 ^{±1}
50	10.5	29	31	5	2	13	13	54	48.5	51	60	71	3.5	G 1/4 B	1/4" NPT	50	50	44.5	44.5
2"	0.41	1.14	1.22	0.2	0.08	0.51	0.51	2.13	1.91	2.01	2.36	2.8	0.14	G 1/8 B	1/8" NPT	47	47	1.75	1.75
				4		10	10									1.85	1.85	1.65	1.65
				0.16		0.39	0.39												

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

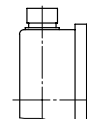
Blow-out Device

Blow-out plug no. 19



Optional

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



¹⁾ 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		G
	fillable version		(G)
Nominal case size	case Ø 50 mm (2")		50
Wetted material	stainless steel		- 3
Case configuration	case / connection	welded	v
	position of the connection	bottom connection	without code letters
		centre back connection	rm
	mounting device	without	without code letters
front flange for panel mounting		Fr	
u-clamp for panel mounting		BFr	
Pressure ranges	-1 200 / 0 mbar		
	-1 / 0 bar	-30" Hg - 0 psi	
	-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	e.g. 0 - 6 bar
	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 - 1000 psi	
	0 - 100 bar	0 - 1500 psi	
	0 - 160 bar	0 - 2000 psi	
		0 - 3000 psi	
0 - 250 bar	0 - 4000 psi		
	0 - 5000 psi		
0 - 400 bar	0 - 6000 psi		
0 - 600 bar	0 - 10000 psi		
Process connection	standard thread	G ¼ B	G ¼ B
		¼" NPT	¼" NPT
		G ½ B	G ½ B
		½" NPT	½" NPT
	options	M 12x1.5	M 12x1.5
Options	see page 4		

Example

RChg 50 - 3v 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.

Red mark	on the dial
Receiver gauge 0.2 – 1 bar (3 – 15 psi) scale 0 – 100 %	linear or square
Special adjustment	reference points = odd values, e.g. 100 KN = 8.735 bar
Window	polycarbonate
Blow-out plug no. 24	reclosable, IP65
Case polished	
Leak test of the measuring unit	with helium leak detection up to 10^{-9} mbar l/s
Wetted parts free of grease and oil	adjustment \leq 250 bar (3000 psi) with dry air, $>$ 250 bar (3000 psi) with distilled water dial marking: symbol crossed out oil can
Oxygen version¹⁾	free of grease and oil as above, additional restrictor screw in the inlet port, orifice \varnothing 0.3 mm (0.01"), dial inscription: oxygen DIN EN 837-1 in connection with oxygen version requires safety category S2 ²⁾ or S3
Silicone-free version	
Safety category S2	window polycarbonate (PC)
Restrictor screw in the pressure inlet port material: stainless steel	orifice \varnothing 0.6 mm (0.02") orifice \varnothing 0.3 mm (0.01")
Instrument tag	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!

¹⁾ for instruments without case filling

²⁾ see "Safety Category" on page 1