

Bourdon Tube Pressure Gauges

Crimped-on ring case stainless steel

RChg 63

RChgG 63

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 ranges 0 – 600 bar and 0 – 1000 bar
(0 – 10,000 psi and 0 – 15,000 psi)

Case

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

Degree of Protection (DIN EN 60 529/IEC 529)

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 required for internal pressure compensation for measuring spans ≤ 10 bar, and also recommended for other pressure ranges if the operating conditions permit

Case Filling

For model RChgG: glycerin

Nominal Case Size

63 mm (2½")

Wetted Parts

Type – 3: connection: stainless steel 316L (1.4404)
Bourdon tube: stainless steel 316L (1.4404)
gas-shielded arc welding
 ≤ 60 bar (800 psi) c-form
 ≥ 100 bar (1,500 psi) helical form

Type – 1: connection: brass
Bourdon tube: bronze
 ≤ 40 bar (600 psi) c-form
soft-soldered
 ≥ 60 bar (800 psi) helical form
silver brazed

Case Configuration

Connection: screwed

Position of the

connection: - bottom connection
- lower back connection (r)/
centre back connection (rm)

Mounting device: - without
- back flange for surface mounting (Rh)
- front flange for panel mounting (Fr)
- u-clamp for panel mounting (BFr)

Pressure Ranges (DIN EN 837-1)

0 – 0.6 bar to 0 – 1000 bar (0 – 10 psi to 0 – 15,000 psi) for type – 3

0 – 0.6 bar to 0 – 600 bar (0 – 10 psi to 0 – 10,000 psi) for type – 1

Process Connection

G ¼ B (¼" BSP)

Window

Polycarbonate for type – 3

Instrument glass for type – 1



Movement

Stainless steel

for type – 3

Brass/German silver

for type – 1

Dial

Aluminum white, scale black

Pointer

Aluminum black

Safety Category According to DIN EN 837-1

S1 pressure gauges with blow-out device

S2 safety pressure gauge,

proved: RChg 63 – 3 up to 1000 bar (15,000 psi)

RChgG 63 – 3 up to 600 bar (10,000 psi)

optional: type – 1 with laminated safety glass
or polycarbonate

Ordering Information, Standard Pressure Ranges, Options

See pages 3 and 4

Special Versions and Further Options

- Other process connections upon request
- Increased measurement accuracy
- Other pressure ranges and/or special scales, e.g. dual scale bar/psi, coloured fields or ranges, dial inscriptions, negative scale
- Version as refrigeration gauge with temperature scale
- Case parts 316L (1.4404) upon request
- Increased degree of protection, e.g. IP65 without case filling, upon request
- Case/connection welded for lower back process connection or centre back process connection upon request
- Other case fillings upon request
- Models –3v for ambient temperatures to -60 °C (-76 °F)
- Position of connection radial at 3 o'clock, 9 o'clock, 12 o'clock (others upon request) or other than vertical installation (90°):
 - for models without case filling and filled models with pressure equalizing membrane
 - for filled models without pressure equalizing membrane upon request
- GOST version for Russia, Ukraine, Kazakhstan, Belarus
- Sour gas resistant version according to NACE

Accessories

See catalogue heading 11

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

Bottom Connection	Lower Back Connection	Centre Back Connection
without mounting device		
<p>(without code letters)</p>	<p>code letter: r</p>	<p>code letters: rm</p>
with back flange for surface mounting		
<p>code letters: Rh</p>	<p>code letters: rRh</p>	<p>code letters: rmRh</p>
with front flange for panel mounting		
<p>code letters: rFr</p> <p>recommended panel cut out $\varnothing 67 \pm 0.3$ mm (2.64 ± 0.012")</p>	<p>code letters: rmFr</p> <p>recommended panel cut out $\varnothing 67 \pm 0.3$ mm (2.64 ± 0.012")</p>	
with u-clamp for panel mounting		
<p>code letters: rBFr</p> <p>recommended panel cut out $\varnothing 64 \pm 0.3$ mm (2.52 ± 0.012")</p>	<p>code letters: rmBFr</p> <p>recommended panel cut out $\varnothing 64 \pm 0.3$ mm (2.52 ± 0.012")</p>	

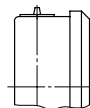
Dimensional Data (mm/inch) and Weights (kg/lb)

NCS	a	a1	b	b1	b2	b3	c	c1	c2	c3	D	D1	D2	d1	d2	d3	e	G	G1
63	10	13	34	38	37	41	5	2	13	13	67	62	64	75	85	3.6	18	G ¼ B	¼" NPT
2½"	0.39	0.51	1.34	1.5	1.46	1.61	0.2	0.08	0.51	0.51	2.64	2.44	2.52	2.95	3.35	0.14	0.71		

g	g1	h ^{±1}	h1 ^{±1}	s	s1	s3	s4	SW	approx. weight ¹⁾	
									RChg	RChgG
61	61	54	54	5	1	10.5	9.5	14	0.18	0.25
2.4	2.4	2.13	2.13	0.2	0.04	0.41	0.37	0.55	0.4	0.55

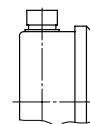
Blow-out Device

Blow-out plug no. 19



Optional

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



¹⁾ data for versions without mounting device

Ordering Information

Basic Model:		Bourdon Tube Pressure Gauge with Crimped-on Ring Case		RChg
Case filling:	without glycerin fillable version			without code letters G (G)
Nominal case size:	case Ø 63 mm (2½")			63
Wetted material:	copper alloy			- 1
	stainless steel			- 3
	Monel, 0 – 1 bar to 0 – 1000 bar, movement stainless steel, polycarbonate, Bourdon tube Monel gas-shielded arc welding, ≤60 bar c-form, ≥100 bar helical form, bottom connection, optional r (no rm) safety version S2 up to 0 – 600 bar			- 6
Case configuration:	case/connection	screwed welded (only type – 3 bottom connection)		without code letters v
	position of the connection	bottom connection lower back connection centre back connection		without code letters r rm
	mounting device	without back flange for surface mounting front flange for panel mounting u-clamp for panel mounting		without code letters Rh Fr BFr
Pressure ranges:	-1200 / 0 mbar	30" hg vac.	0 psi	
	-0.6 / 0 bar			
	-1 / 0 bar			
	-1 / +0.6 bar	30" hg vac.	15 psi	
	-1 / +1.5 bar	30" hg vac.	30 psi	
	-1 / +3 bar	30" hg vac.	60 psi	
	-1 / +5 bar	30" hg vac.	100 psi	
	-1 / +9 bar	30" hg vac.	160 psi	
	-1 / +15 bar	30" hg vac.	200 psi	
		30" hg vac.	300 psi	
	0 – 0.6 bar	0	10 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	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	
	0 – 1000 bar for types – 3 and – 6	0	15,000 psi	
Process connection:	standard thread	G ¼B – 1	max. 0 – 600 bar	G ¼B
	options	¼"NPT – 3 and – 6	max. 0 – 1000 bar	¼"NPT
		M 12x1.5		M 12x1.5
		G ½B – 1 and – 6	max. 0 – 400 bar	G ½B
		½"NPT – 3	max. 0 – 600 bar	½"NPT
Options:	see page 4			
Example:	RChg 63 – 3 rmFr, 0 – 6 bar, G ¼B			

