

Bourdon Tube Pressure Gauges

Bayonet ring case stainless steel

RCh 63

RChG 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 bayonet ring, stainless steel 304 (1.4301)

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

IP54

IP65 for model RChG 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 RChG: glycerin

Nominal Case Size

63 mm (2 1/2")

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
		≥ 60 bar (800 psi) soft-soldered
		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)

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 1/4 B (1/4" BSP)

Window

Laminated safety glass 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:	RCh 63 – 3	up to 1000 bar (15,000 psi)
	RChG 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

- Special process connections, e.g. VCR-F, VCR-M, VCR-M short (see technical information sheet T01-000-016) or cannula connection with needle for vacuum/pressure test of cans (see technical information sheet T01-000-022), others 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
- Model RChG 63 – 3, bottom connection (lower back connection or centre back connection upon request) for ambient temperatures to -40 °C (-40 °F)
For ambient temperatures below -20 °C (-4 °F) we recommend: pressure gauges with crimped-on ring case models RChg or RChgG
- Versions for medium temperatures up to $+300$ °C ($+572$ °F) but without case filling upon request
- 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

Chemical seals: see catalogue heading 7
Other accessory: 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		
(without code letters)	code letter: r	code letters: rm
with back flange for surface mounting		
code letters: Rh	code letters: rRh	code letters: rmRh
(available upon request, however not recommended according to DIN EN 837-1)	(available upon request, however not recommended according to DIN EN 837-1)	(available upon request, however not recommended according to DIN EN 837-1)
with front flange for panel mounting		
code letters: Fr	code letters: rFr	code letters: rmFr
(available upon request, however not recommended according to DIN EN 837-1)		

front flange with slotted holes, separate cover ring, recommended panel cut out: $\varnothing 67 \pm 0.3 \text{ mm}$ ($2.64 \pm 0.012''$)

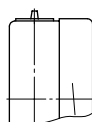
Dimensional Data (mm/inch) and Weights (kg/lb)

NCS	a	a1	b	b1	b2	b3	c	c1	c2	c3	D	D1	D2	d1	d2	d3	e	G	G1	g	g1	h ^{±1}	h1 ^{±1}
63 2½"	10 0.39	13 0.51	33 1.3	37 1.46	36 1.42	40 1.57	5 0.2	2 0.08	13 0.51	13 0.51	64 2.52	62 2.44	66 2.6	75 2.95	85 3.35	3.6 0.14	18 0.71	G ¼ B M12x1.5	¼" NPT	59 2.32	59 2.32	54 2.13	54 2.13

s	s2	s3	SW	approx. weight ¹⁾	
RCh	RChG				
5 0.2	2 0.08	5.5 0.22	14 0.55	0.18 0.4	0.25 0.55

Blow-out Device

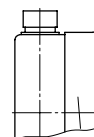
Blow-out plug no. 19



Optional

Model RChG, case configurations bottom connection, r, rm:

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



¹⁾ data for versions without mounting device

Ordering Information

Basic Model:		Bourdon Tube Pressure Gauge with Bayonet Ring Case				RCh		
Case filling:	without					without code letters		
	glycerin					G		
	fillable version					(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, laminated safety glass, 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			without code letters		
			welded (only type – 3 bottom connection)			v		
	position of the connection		bottom connection			without code letters		
			lower back connection			r		
			centre back connection			rm		
	mounting device		without			without code letters		
			back flange for surface mounting			Rh		
			front flange for panel mounting			Fr		
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:	RCh 63 – 3 rmFr. 0 – 6 bar. G ¼B							

Ordering Information, Further Options

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