

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
- 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)
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")

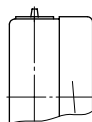
Dimensional Data (mm/inch) and Weights (kg/lb)

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	10	13	33	37	36	40	5	2	13	13	64	62	66	75	85	3.6	18	G 1/4 B	G1	59	59	54	54
2 1/2"	0.39	0.51	1.3	1.46	1.42	1.57	0.2	0.08	0.51	0.51	2.52	2.44	2.6	2.95	3.35	0.14	0.71	M12x1.5	1/4" NPT	2.32	2.32	2.13	2.13

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

Blow-out Device

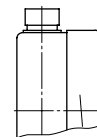
Blow-out plug no. 19



Optional

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

Blow-out plug no. 24 (reclosable)



¹⁾ data for version without mounting device

Ordering Information

Basic Model:		Bourdon Tube Pressure Gauge with Bayonet Ring Case		RCh
Case filling:	without glycerin fillable version			without code letters G (G) 63
Nominal case size:	case Ø 63 mm (2½")			– 1 – 3 – 6
Wetted material:	copper alloy stainless steel 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			
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		without code letters Rh Fr
Pressure ranges:	–1200 / 0 mbar –0.6 / 0 bar –1 / 0 bar –1 / +0.6 bar –1 / +1.5 bar –1 / +3 bar –1 / +5 bar –1 / +9 bar –1 / +15 bar 30" hg vac. – 0 psi 30" hg vac. – 15 psi 30" hg vac. – 30 psi 30" hg vac. – 60 psi 30" hg vac. – 100 psi 30" hg vac. – 160 psi 30" hg vac. – 200 psi 30" hg vac. – 300 psi 0 – 0.6 bar 0 – 1 bar 0 – 1.6 bar 0 – 2.5 bar 0 – 4 bar 0 – 6 bar 0 – 10 bar 0 – 16 bar 0 – 25 bar 0 – 40 bar 0 – 60 bar 0 – 100 bar 0 – 160 bar 0 – 250 bar 0 – 400 bar 0 – 600 bar 0 – 1000 bar			e.g. 0 – 6 bar
Process connection:	standard thread options	G ¼B – 1 ¼" NPT – 3 and – 6 M 12x1.5 G ½B – 1 and – 6 ½" NPT – 3	max. 0 – 600 bar max. 0 – 1000 bar max. 0 – 400 bar max. 0 – 600 bar	G ¼B ¼" NPT M 12x1.5 G ½B ½" NPT
Options:	see page 4			
Example:				RCh 63 – 3 rmFr, 0 – 6 bar, G ¼B

