

Bourdon Tube Pressure Gauges

Crimped-on Ring Case Stainless Steel

RChg 63
RChgG 63

Standard Versions

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

Accuracy (EN 837-1)

Class 1.6

Class 2.5 for pressure ranges 0-600 and 0-1,000 bar
(0-10,000 and 0-15,000 psi)

Case

Polished crimped-on ring, 1.4301 (304 stainless steel)

Case Protection Type (EN 60 529 / IEC 529)

IP 54,

IP 65 for model RChgG with closed blow-out plug

Blow-out Device

Blow-out plug at the top of the case coverage

Case Ventilation

By blow-out plug, ventilation required for internal pressure compensation for pressure ranges ≤ 10 bar and also recommended for other pressure ranges, as far as the operating conditions allow this.

Case Filling

for model RChgG: Glycerin

Nominal Case Size

63 (mm) (2½")

Wetted Parts

Type -3: Connection: 316 stainless steel
Bourdon tube: 316 stainless steel,
argon arc welding,
 ≤ 60 bar (800 psi) c-form,
 ≥ 100 bar (1,500 psi) helical

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

Case Configuration

Connection: screwed

Position of the connection: bottom connection,
optional lower back connection (**r**) /
centre back connection (**rm**)

Mounting device: without, optional back flange for
surface mounting (**Rh**) / front flange
for panel mounting (**Fr**) or u-clamp for
panel mounting (**BFr**), see page 2

Pressure Ranges (EN 837-1)

0-0.6 bar (0-10 psi) to 0-1,000 bar (0-15,000 psi) for type -3
0-0.6 bar (0-10 psi) to 0- 600 bar (max. 6,000 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, black figures, white background

Pointer

Aluminum, black

Safety Category according to EN 837-1

S1 pressure gauges with blow-out device

S2 safety pressure gauge,

proved: RChg 63-3 up to 1,000 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 among others

- Other process connections upon request
- Other pressure ranges and / or special scales, e.g. double scale bar/psi, coloured fields or areas, dial inscriptions, negative scale etc. .
- Version as refrigeration gauge with temperature scale
- Case parts 1.4404 (316 L stainless steel) upon request
- Increased case protection type, e. g. IP 65 without case filling, upon request
- Welded case / connection for lower back connection or centre back connection upon request
- Other case fillings upon request
- Models-3 for ambient temperatures down to -60 °C (-76 °F);
- Position of connection radial at 3 o'clock, 9 o'clock or 12 o'clock (others upon request) or other than vertical installation (90°):
 - for models without case filling and for filled models with pressure equalizing membrane;
 - for filled models without pressure equalizing membrane upon request
- GOST-version for Russia, Ukraine, Kazakhstan
- Sour gas-resistant version according to NACE

Accessory:

see catalogue-heading 11



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

Bottom connection	Lower back connection	Centre back connection
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No mounting device		
<p>(no additional code letters)</p>	<p>code letter: r</p>	<p>code letters: rm</p>

Back flange for surface mounting		
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<p>code letters: Rh</p>	<p>code letters: rRh</p>	<p>code letters: rmRh</p>
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Front flange for panel mounting	
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<p>code letters: rFr</p> <p>recommended panel cut out for $\text{Ø } 67 \pm 0.3 \text{ mm (0.01")}$</p>	<p>code letters: rmFr</p> <p>recommended panel cut out for $\text{Ø } 67 \pm 0.3 \text{ mm (0.01")}$</p>
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U-clamp for panel mounting	
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<p>code letters: rBFr</p> <p>recommended panel cut out for $\text{Ø } 64 \pm 0.3 \text{ mm (0.01")}$</p>	<p>code letters: rmBFr</p> <p>recommended panel cut out for $\text{Ø } 64 \pm 0.3 \text{ mm (0.01")}$</p>
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Dimensional data (mm / inches) and weights (kg / lb)																				
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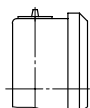
NCS	a	a1	b	b1	b2	b3	c	c1	c2	c3	D	D1	D2	d1	d2	d3	e	G	G1
63	10	13	34	38	37	41	5	2	13	13	67	62	64	75	85	3.6	18	G 1/4 B	1/4" NPT
2 1/2"	.4	.51	1.34	1.5	1.46	1.61	.2	.08	.51	.51	2.63	2.44	2.52	2.95	3.35	.14	.71	1/4" BSP	

NCS	g	g1	h±1	h1±1	s	s1	s3	s4	SW	approx. weight ¹⁾	
										RChg	RChgG
63	61	61	54	54	5	1	10.5	9.5	14	0.18	0.25
2 1/2"	2.4	2.4	2.13	2.13	.2	.04	.41	.37	.55	0.40	0.55

¹⁾ Information for version without mounting device

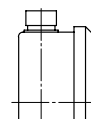
Blow-out device

Blow-out plug 19



Optional:

Blow-out plug 24 (reclosable)



Ordering Information, Standard Pressure Ranges, Options

Basic Model:		Bourdon Tube Pressure Gauge, Crimped-on Ring Case		RChg
Case Filling	without			without code letters
	glycerine			G
	fillable version			(G)
Nominal Case Size:	case-Ø 63 (mm) (2½")		63	
Wetted Material:	copper alloy		-1	
	stainless steel		-3	
Case Configuration:	Monel, 0-1 bar (15 psi) to 0-1,000 bar (15,000 psi), movement stainless steel, window polycarbonate, bourdon tube Monel argon arc welding, ≤ 60 bar (1,000 psi) c-form, ≥ 100 bar (1,500 psi) helical, bottom connection, optional r (no rm), safety version S2 up to 0-600 bar (10,000 psi)		-6	
	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		
u-clamp for panel mounting		BFr		
Pressure Ranges:	-1,200 – 0 mbar	30" Hg vac. – 0		
	-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 – 25 bar	0 – 300 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 – 250 bar	0 – 3,000 psi		
	0 – 400 bar	0 – 5,000 psi		
		0 – 6,000 psi		
	0 – 600 bar	0 – 10,000 psi		
	0 – 1,000 bar for types -3 and -6	0 – 15,000 psi		
	Process Connection:	standard thread	G ¼ B (¼"BSP)	G ¼ B
options:		¼" NPT	¼" NPT	
		M 12 x 1.5	M 12 x 1,5	
		G ⅜ B (⅜"BSP)	G ⅜ B	
	⅜" NPT	⅜" NPT		
Options:	see page 4			
Example: RChg 63-3 rmFr, 0-6 bar, G ¼ B				

Further Options regarding Ordering Information

Basic Model:	Bourdon Tube Pressure Gauge, Crimped-on Ring Case	RChg
Model Code:		see page 3
Options:	<p>red mark on the dial</p> <p>receiver gauge 0.2-1 bar, scale 0-100% linear square</p> <p>special adjustment (reference points = odd values, e. g. 100 KN = 8.735 bar)</p> <p>window laminated safety glass (= S2 see below) polycarbonate (PC) for type -1 (= S2 see below)</p> <p>movement stainless steel for type -1 (for -3 and -6 standard)</p> <p>pressure equalizing membrane for model RChgG with blow-out device Ø 1" (25 mm) in the back of the case when bottom and lower connection</p> <p>blow-out plug 24 (reclosable)</p> <p>case ventilation no. 22 for outdoor installation</p> <p>case polished</p> <p>density examination with helium leak detection up to of the measuring unit 10⁻⁹ mbar l/s for types -3 and -6</p> <p>wetted parts, free of grease and oil, up to 0-600bar (0-10,000 psi) adjustment ≤ 250 bar (3,000 psi) with dry air, ≥ 400 bar (5,000 psi) with distilled water, dial marking: symbol cancelled oil can</p> <p>oxygen version up to 0-600 bar²⁾ (0-10,000 psi) free of grease and oil, additional restrictor screw in the inlet port, orifice Ø 0.3 mm (0.01"), dial inscription: oxygen EN 837-1 in connection with oxygen version requires safety category S2³⁾ or S3</p> <p>silicone-free version version: German Lloyd or Russian Sea Register Model RChgG 63 dial marking: symbol copy of the certificate upon request</p> <p>safety category S2 for version -1 up to 0-600 bar (0-10,000 psi) window made of laminated safety glass or polycarbonate (PC)</p> <p>restrictor screw in pressure inlet port orifice Ø 0.8 mm (0.03") orifice Ø 0.6 mm (0.02") (not Monel) material: as process connection brass, stainless steel or Monel orifice Ø 0.3 mm (0.01") (not Monel)</p> <p>measuring point marking stainless steel-plate 12 mm x 55 mm (0.47" x 2.17"), wire mounting or sticker on case coverage</p>	(order at the moment still as cleartext)

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Special Versions: Please describe your requirements clearly

¹⁾ not for S2

³⁾ see "safety category" page

²⁾ for instruments without case filling