

# Bourdon Tube Pressure Gauges

Bayonet Ring Case Stainless Steel,  
Safety Category S3 according to EN-837-1



**RSCh 63**  
**RSChG 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

Bayonet ring, 1.4301 (304 stainless steel)

### Gehäuse-Schutzart (EN 60 529 / IEC 529)

IP 54,

IP 65 for model RSChG

### Blow-out Device

Blow-out back; should the bourdon tube rupture, the entire case back separates, allowing full relief.

### Case Ventilation

Model RSChG, without ventilation, but with internal pressure compensation by pressure equalizing membrane.

### Gehäusefüllung

for model RSChG: glycerine

### Nominal Case Size

63 (mm) (2½")

### Wetted Parts

Type -3: Connection: 1.4571 (316 stainless steel)

Bourdon tube: 1.4571 (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,  
Model RSCh 63-3 and 63-6,  
optional lower back connection (r)

Mounting device: without, optional back flange for  
surface mounting (Rh) / front flange  
for panel mounting (Fr), 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 (0-10,000 psi) for type -1

### Process Connection

G ¼ B (¼" BSP)

### Window

Laminated safety glass

### 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

S3, safety pressure gauge with break-proof solid front,  
proved: pressure ranges up to 1,000 bar (15,000 psi) (type -3),  
up to 600 bar (10,000 psi) (type -1),

bottom connection: RSCh and RSChG

lower back connection: RSCh 63-3

marking , see also sectional drawing overleaf.

## Ordering Information, Standard Pressure Ranges, Options:

see pages 3 and 4

## Special Versions and further options among others

- Special process connections, e. g. VCR-F, VCR-M, VCR-M short (see technical information sheet T01-000-016), others 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)
- Increased case protection type, e. g. IP 65 without case filling, upon request
- Other case fillings upon request
- Model RSChG for ambient temperatures down to -40 °C (-40 °F) upon request. Our recommendation for ambient temperatures below -20 °C (-4 °F); models RChG resp. RChG
- Position of connection radial at 3 o'clock, 9 o'clock or 12 o'clock (others upon request) or other than vertical installation (90°)
- GOST-version for Russia, Ukraine, Kazakhstan
- Sour gas-resistant version according to NACE

## Accessory:

Chemical seals: see catalogue-heading 7

Electrical: limit switch contact assembly DS 1619.1 and catalogue-heading 9.1

Other accessory: see catalogue-heading 11



## INSTRUMENTS TO INDUSTRY LTD

Euro Works - Hawksley Industrial Estate - Hawksley Street  
Oldham - OL8 4PQ - United Kingdom

T: +44 (0)161 652 7741

F: +44 (0)161 621 0389

E: sales@itiuk.com

W: www.itruk.com

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

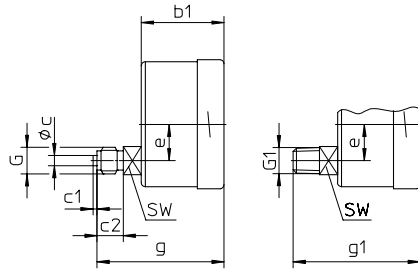
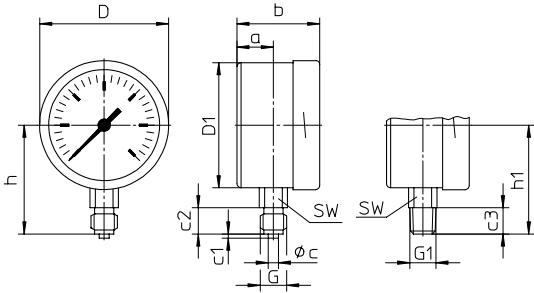
## Bottom connection

## Lower back connection (only -3 and -6)

### No mounting device

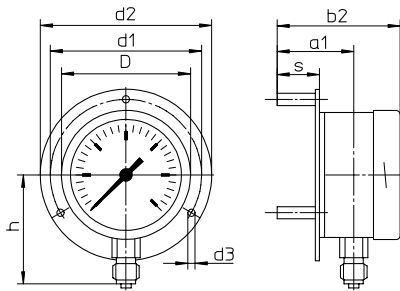
(no additional code letter)

code letter: r



### Back flange for surface mounting

code letters: Rh

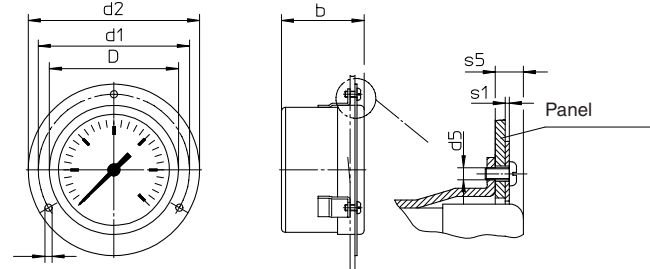
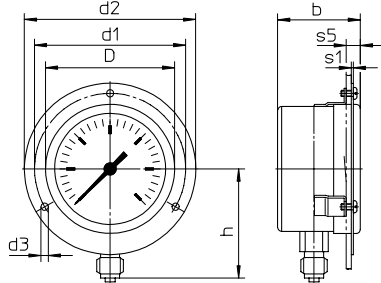


Version Rh including 3 separate mounting spacers.

### Front flange for panel mounting

code letters: Fr

code letters: rFr



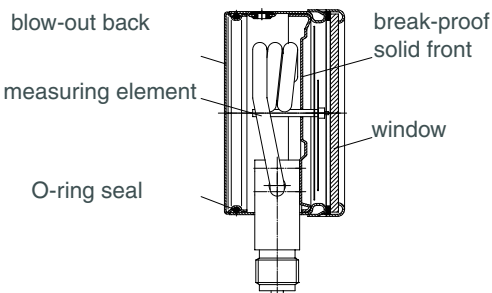
(available upon request, but according to EN 837-1 not recommended)

recommended panel cut out for  $\varnothing 67 \pm 0.5 (0.02")$

### Dimensional data (mm / inches) and weights (kg / lb)

NCS	a	a1	b	b1	b2	c	c1	c2	c3	D	D1	d1	d2	d3	d5	e	G	G1	g	g1	h <sup>±1</sup>	h1 <sup>±1</sup>
63 2 1/2"	18 .71	38 1.5	41 1.61	41 1.61	61 2.4	5 .2	2 .08	13 .51	13 .51	64 2.52	62 2.44	75 .95	85 3.35	3.6 .14	M3	18 .71	G 1/4 B 1/4" BSP M 12x1.5	1/4" NPT	63 2.48	63 2.48	54 2.13	54 2.13

### Schematic drawing



s	s1	s5	SW	approx. weight <sup>1)</sup>	
				RSCh	RSChG
21 .83	1 .04	7 .28	14 .55	0.18 .39	0.25 .55

<sup>1)</sup> Information for version without mounting device

## Ordering Information, Standard Pressure Ranges, Options

Basic Model:	Bourdon Tube Pressure Gauge, Bayonet Ring Case			RSCh	
Case Filling	without			without code letters	
	glycerine			<b>G</b>	
	fillable version			<b>(G)</b>	
Nominal Case Size:	case- Ø 63 (mm) (2½")			<b>63</b>	
Wetted Material:	copper alloy			<b>-1</b>	
	stainless steel			<b>-3</b>	
	Monel 0-1 bar (15 psi) to 0-1,000 bar (15,000 psi), movement stainless steel, laminated safety glass, bourdon tube Monel argon arc welding, ≤ 60 bar (1,000 psi) c-form, ≥ 100 bar (1,500 psi) helical, bottom connection, optional r			<b>-6</b>	
Case Configuration:	case / connection	screwed		without code letters	
	position of the connection:	lower back connection (only RSCh 63-3)		<b>r</b>	
	Befestigungsvorrichtung:	without		without code letters	
		back flange for surface mounting		<b>Rh</b>	
	front flange for panel mounting		<b>Fr</b>		
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. <b>0-6 bar</b>	
	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 –	4,000 psi		
	0 – 400 bar	0 –	5,000 psi		
		0 –	6,000 psi		
	0 – 600 bar	0 –	10,000 psi		
	0 – 1,000 bar	for type -3 and -6	0 –	15,000 psi	
	Process Connection:	standard thread	G ¼ B (¼"BSP)	-1	max. 0- 600 bar;
		Optionen:	¼" NPT	-3 and -6	max. 0-1,000 bar
M 12 x 1.5					
		G ⅜ B (⅜"BSP)	-1 and -6	max. 0- 400 bar;	
		⅜" NPT	-3	max. 0- 600 bar	
				<b>G ¼ B</b> <b>¼" NPT</b> <b>M 12 x 1,5</b> <b>G ⅜ B</b> <b>⅜" NPT</b>	
Options:	see page 4				
<b>Example:</b> RSCh 63-3 rFr, 0-6 bar, G ¼ B					

## Further Options regarding Ordering Information

Basic Model:	Bourdon Tube Pressure Gauge, Bayonet Ring Case	RSCh																																						
Model Code:		see page 3																																						
Options:	<table><tr><td>adjustable pointer</td><td></td></tr><tr><td>red mark</td><td>on the dial</td></tr><tr><td>stationary</td><td>on the dial,</td></tr><tr><td>red pointer</td><td>adjustable when removable ring</td></tr><tr><td colspan="2"> </td></tr><tr><td>receiver gauge 0.2-1 bar, scale 0-100%</td><td>linear square</td></tr><tr><td colspan="2">special adjustment (reference points = odd values, e. g. 100 KN = 8.735 bar)</td></tr><tr><td colspan="2">window polycarbonate (PC)</td></tr><tr><td colspan="2">movement stainless steel for type -1 (for -3 and -6 standard)</td></tr><tr><td colspan="2">case ventilation no. 22 for outdoor installation</td></tr><tr><td colspan="2">case polished</td></tr><tr><td colspan="2">bayonet ring polished</td></tr><tr><td>density examination of the measuring unit</td><td>with helium leak detection up to <math>10^{-9}</math> mbar l/s for types -3 and -6</td></tr><tr><td>wetted parts, free of grease and oil, up to 0-600bar (0-10,000 psi)</td><td>adjustment <math>\leq</math> 250 bar (3,000 psi) with dry air, <math>\geq</math> 400 bar (5,000 psi) with distilled water, dial marking: symbol cancelled oil can</td></tr><tr><td>oxygen version up to 0-600 bar<sup>1)</sup> (0-10,000 psi)</td><td>free of grease and oil, additional restrictor screw in the inlet port, orifice <math>\varnothing</math> 0.3 mm (0.01"), dial inscription: oxygen</td></tr><tr><td colspan="2">silicone-free version</td></tr><tr><td>restrictor screw in pressure inlet port</td><td>orifice <math>\varnothing</math> 0.8 mm (0.03") orifice <math>\varnothing</math> 0.6 mm (0.02") (not Monel) orifice <math>\varnothing</math> 0.3 mm (0.01") (not Monel)</td></tr><tr><td>material: as process connection brass, stainless steel or Monel</td><td></td></tr><tr><td>measuring point marking</td><td>stainless steel-plate 12 mm x 55 mm (0.47" x 2.17"), wire mounting or sticker on case coverage</td></tr></table>	adjustable pointer		red mark	on the dial	stationary	on the dial,	red pointer	adjustable when removable ring			receiver gauge 0.2-1 bar, scale 0-100%	linear square	special adjustment (reference points = odd values, e. g. 100 KN = 8.735 bar)		window polycarbonate (PC)		movement stainless steel for type -1 (for -3 and -6 standard)		case ventilation no. 22 for outdoor installation		case polished		bayonet ring polished		density examination of the measuring unit	with helium leak detection up to $10^{-9}$ mbar l/s for types -3 and -6	wetted parts, free of grease and oil, up to 0-600bar (0-10,000 psi)	adjustment $\leq$ 250 bar (3,000 psi) with dry air, $\geq$ 400 bar (5,000 psi) with distilled water, dial marking: symbol cancelled oil can	oxygen version up to 0-600 bar <sup>1)</sup> (0-10,000 psi)	free of grease and oil, additional restrictor screw in the inlet port, orifice $\varnothing$ 0.3 mm (0.01"), dial inscription: oxygen	silicone-free version		restrictor screw in pressure inlet port	orifice $\varnothing$ 0.8 mm (0.03") orifice $\varnothing$ 0.6 mm (0.02") (not Monel) orifice $\varnothing$ 0.3 mm (0.01") (not Monel)	material: as process connection brass, stainless steel or Monel		measuring point marking	stainless steel-plate 12 mm x 55 mm (0.47" x 2.17"), wire mounting or sticker on case coverage	(order at the moment still as cleartext)
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### Special Versions: Please describe your requirements clearly

<sup>1)</sup> for instruments without case filling

Technical changes, replacement of materials and errors excepted.