

# Bourdon Tube Pressure Gauges

## Bayonet Ring Case Stainless Steel

**RCh 40**  
**RChG 40**

### 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 bar  
(0-10,000 psi)

#### Case

Bayonet ring, 1.4301 (304 stainless steel)

#### Case Protection Type (EN 60 529 / IEC 529)

IP 54,

IP 65 for model RChG

#### Case Ventilation

for model RCh

ventilation bore at the bottom of the case coverage ( $\varnothing$  1 mm / 0.04")

for model RChG

without ventilation, but with internal pressure compensation by pressure equalizing membrane for pressure ranges up to 0-16 bar (0-200 psi)

#### Case Filling

for model RChG: glycerine

#### Nominal Case Size

40 (mm) (1½")

#### Wetted Parts

Connection:

1.4571 (316 stainless steel)

Bourdon Tube:

1.4571 (316 stainless steel),  
argon arc welding,  
≤ 100 bar (1,500 psi) c-form,  
≥ 160 bar (2,000 psi) helical

#### Case Configuration

Connection:

screwed

Position of the connection: bottom connection,

optional centre back connection (**rm**)

Mounting device:

without, optional front flange for panel mounting (**Fr**) or u-clamp for panel mounting (**BFr**), see page 2

#### Pressure Ranges (EN 837-1)

0-1 bar (0-15 psi) to 0-600 bar (0-10,000 psi)

#### Process Connection

½" NPT

#### Window

Polycarbonate

#### Movement

Stainless steel

#### Dial

Aluminum, black figures, white background

#### Pointer

Aluminum, black



### 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.
- Case parts 1.4404 (316 L stainless steel) upon request
- Increased case protection type, e. g. IP 65 without case filling, upon request
- Other case fillings upon request
- 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 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

### Accessory:

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

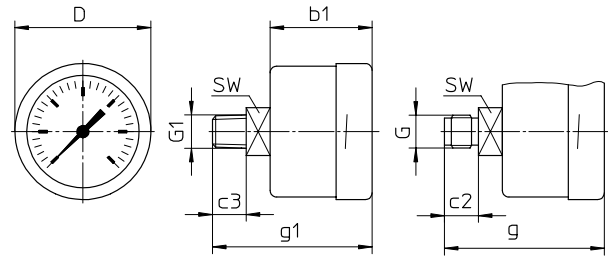
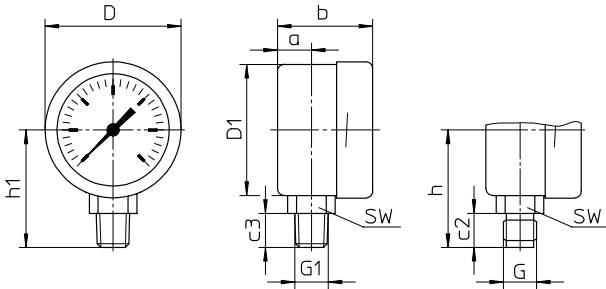
## Bottom connection

## Centre back connection

### No mounting device

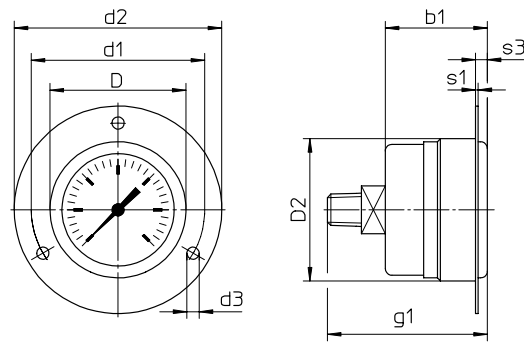
(no additional code letter)

code letters: **rm**



### Front flange for panel mounting

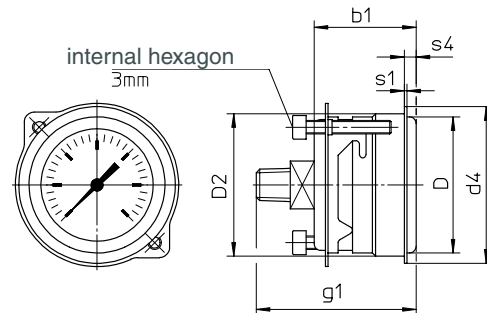
code letters: **rmFr**



recommended panel cut out for  $\text{Ø } 43 \pm 0.5$  (0.02")

### U-clamp for panel mounting

code letters: **rmBFr**



recommended panel cut out for  $\text{Ø } 42.5 \pm 0.3$  (0.01")

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

NCS	a	a1	b	b1	b2	b3	c	c1	c2	c3	D	D1	D2	d1	d2	d3	d4	e	G	G1	g	g1	h <sup>±1</sup>
40 1½"	10 .4	-	28 1.10	30 1.18	-	-	-	-	10 .4	10 .4	40 1.57	38.5 1.52	41.8 1.64	51 2.01	61 2.4	3.6 .14	46 1.81	-	G ½ B ½" BSP	½" NPT	47 1.85	47 1.85	34.5 1.36

h1 <sup>±1</sup>	s	s1	s2	s3	s4	SW	SW1	approx. weight <sup>1)</sup>	
								RCh	RChG
34.5 1.36	-	0.8 .03	-	3.5 .14	3.5 .14	14 .55	-	0.07 .15	0.10 .22

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

## Ordering Information, Standard Pressure Ranges, Options

Basic Model:	Bourdon Tube Pressure Gauge, Bayonet Ring Case		RCh	
<b>Case Filling</b>	without		without code letters	
	glycerine		<b>G</b>	
	fillable version		<b>(G)</b>	
<b>Nominal Case Size:</b>	case- Ø 40 (mm) (1½")		<b>40</b>	
<b>Wetted Material:</b>	stainless steel		<b>-3</b>	
<b>Case Configuration:</b>	case / connection	screwed	without code letters	
	position of the connection:	bottom connection	without code letters	
		centre back connection	<b>rm</b>	
	mounting device:	front flange for panel mounting	<b>Fr</b>	
u-clamp for panel mounting		<b>BFr</b>		
<b>Pressure Ranges:</b>	-1,200 – 0 mbar	30" hg vac. – 0		
	-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 – 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 – 600 bar	0 – 10,000 psi			
<b>Process Connection:</b>	standard thread	1/8" NPT	<b>1/8" NPT</b>	
	options:	G 1/8 B (1/8"BSP)	<b>G 1/8 B</b>	
		only for centre back connection (rm)	1/4" NPT	<b>1/4" NPT</b> (connection rm)
			G 1/4 B (1/4"BSP)	<b>G 1/4 B</b> (connection rm)
		M 12 x 1.5	<b>M 12 x 1,5</b> (connection rm)	
<b>Options:</b>	see page 4			
<b>Example:</b>	<b>RCh 40-3 rmFr, 0-6 bar, 1/8" NPT</b>			

## Further Options regarding Ordering Information

Basic Model:	Bourdon Tube Pressure Gauge, Bayonet Ring Case	RCh
<b>Model Code:</b>		see page 3
<b>Options:</b>	red mark on the dial	<i>(order at the moment still as cleartext)</i>
	receiver gauge 0.2-1 bar, scale 0-100%, only as model RCh linear square	
	special adjustment (reference points = odd values, e. g. 100 KN = 8.735 bar)	
	window instrument glass	
	case polished	
	bayonet ring polished	
	density examination with helium leak detection up to of the measuring unit 10 <sup>-9</sup> mbar l/s	
	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	
	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 Ø 0,3 mm (0.01"), dial inscription: oxygen with option safety category S2 (see below)	
	silicone-free version	
	safety category S2 for versions without case filling blow-out plug 19 not rFr or rBFr	
	restrictor screw in pressure inlet port material: as process orifice Ø 0.6 mm (0.02") orifice Ø 0.3 mm (0.01")	
	connection stainless steel	
	measuring point marking stainless steel-plate 12 mm x 55 mm (0.47" x 2.17"), wire mounting or sticker on case coverage	

**Special Versions:** Please describe your requirements clearly  
<sup>1)</sup> for instruments without case filling Technical changes, replacement of materials and errors excepted.