

# Bourdon Tube Pressure Gauges

Crimped-on ring case stainless steel

**RChg 80**  
**RChgG 80**

## 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 and 0 – 15,000 psi)

### Case

With polished crimped-on ring, stainless steel 304 (1.4301)

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

IP54

IP65 for model RChgG 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  $\leq 10$  bar, and also recommended for other pressure ranges if the operating conditions permit

### Case Filling

For model RChgG: glycerin

### Nominal Case Size

80 mm (3")

### Wetted Parts

Type – 3: connection: stainless steel 316L (1.4404)  
Bourdon tube: stainless steel 316L (1.4404)  
gas-shielded arc welding  
 $\leq 60$  bar (800 psi) c-form  
 $\geq 100$  bar (1,500 psi) helical form

O-ring sealing: FPM  
Type – 1: connection: brass  
Bourdon tube: bronze  
 $\leq 40$  bar (600 psi) c-form  
 $\geq 60$  bar (800 psi) soft-soldered  
helical form  
silver brazed

O-ring sealing: NBR

### Case Configuration

Connection: screwed

Position of the connection:  
- bottom connection  
- centre back connection (**rm**)

Mounting device:  
- without  
- back flange for surface mounting (**Rh**)  
- front flange for panel mounting (**Fr**)  
- u-clamp for panel mounting (**BFr**)

### 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  $\frac{1}{2}$ B ( $\frac{1}{2}$ " 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

## Ordering Information, Standard Pressure Ranges, Options

See pages 3 and 4

## Special Versions and Further Options

- Other process connections 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
- Degree of protection IP65
- Other case fillings upon request
- Model RChg 80 – 3, bottom connection for ambient temperatures to  $-40$  °C ( $-40$  °F)
- Position of connection radial at 3 o'clock, 9 o'clock, 12 o'clock (others upon request) or other than vertical installation ( $90^\circ$ ), for unfilled models
- GOST version for Russia, Ukraine, Kazakhstan, Belarus

## Accessories

See catalogue heading 11



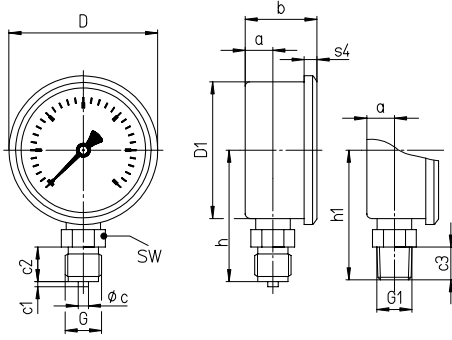
# Case Configurations, Code Letters, Dimensional Data and Weights, Blow-out Device

## Bottom Connection

## Centre Back Connection

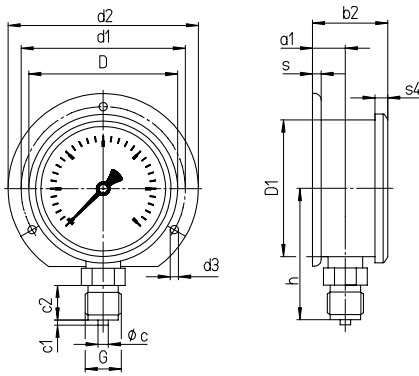
without mounting device

(without code letters)

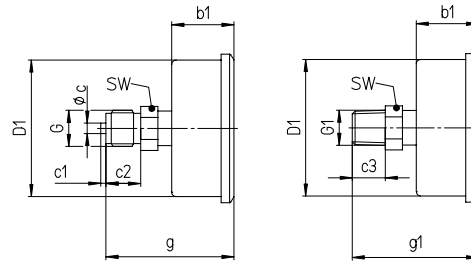


with back flange for surface mounting

code letters: **Rh**

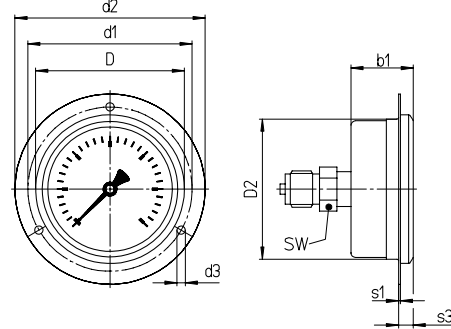


code letters: **rm**



with front flange for panel mounting

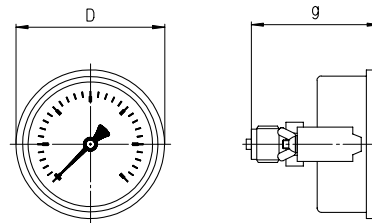
code letters: **rmFr**



recommended panel cut out  $\text{Ø } 84 \pm 0.5 \text{ mm } (3.31 \pm 0.02")$

with u-clamp for panel mounting

code letters: **rmBFr**



recommended panel cut out  $\text{Ø } 81 \pm 0.5 \text{ mm } (3.19 \pm 0.02")$

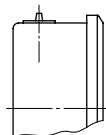
## Dimensional Data (mm/inches) and Weight (kg/lb)

NCS	D	D1	D2	a	a1	b	b1	b2	c	c1	c2	c3	d1	d2	d3	G	G1
80 3"	86 3.39	79 3.11	81 3.19	16 0.63	19 0.75	41.5 1.63	36 1.42	44 1.73	6 0.24	3 0.12	20 0.79	19 0.75	95 3.74	110 4.33	4.8 0.19	G 1/2 B M 20x1.5	1/2" NPT

g	g1	h	h1	s	s1	s3	s4	SW	approx. weight <sup>1)</sup>	
									RChg	RhgG
74 2.91	73 2.87	76 2.99	75 2.95	5 0.2	1 0.04	9 0.35	8 0.31	22 0.87	0.34 0.75	0.50 1.1

## Blow-out Device

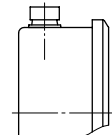
Blow-out plug no. 19



## Optional

Model RChgG, case configurations bottom connection, rm:

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



<sup>1)</sup> data for versions without mounting device



## Ordering Information

Basic Model:		Bourdon Tube Pressure Gauge with Crimped-on Ring Case		RChg
Case filling:	without			without code letters
	glycerin			<b>G</b>
	fillable version			<b>(G)</b>
Nominal case size:	case Ø 80 mm (3")		<b>80</b>	
Wetted material:	copper alloy		<b>- 1</b>	
	stainless steel		<b>- 3</b>	
Case configuration:	case/connection	screwed		without code letters
	position of the connection	bottom connection		without code letters
		centre back connection		<b>rm</b>
	mounting device	without		without code letters
back flange for surface mounting		<b>Rh</b>		
front flange for panel mounting		<b>Fr</b>		
		u-clamp for panel mounting	<b>BFr</b>	
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	<b>e.g. 0 - 6 bar</b>
	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 type - 3	0	15,000 psi		
Process connection:	standard thread	G ½ B		<b>G ½ B</b>
	options	½" NPT		<b>½" NPT</b>
		M20x1.5		<b>M 20x1.5</b>
Options:	see page 4			

Example:

**RChg 80 - 3 rmFr, 0 - 6 bar, G ½ B**

