

# Bourdon Tube Pressure Gauges

Crimped-on ring case stainless steel

**RChg 40 – 3v**  
**RChgG 40 – 3v**

## 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 range 0 – 600 bar (0 – 10 000 psi)

### Case

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

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

IP65 (> 10 bar)

IP54 (≤ 10 bar) with cut off blow-out plug no. 19

### 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 pressure ranges ≤ 10 bar, and also recommended for other pressure ranges if the operating conditions permit

### Case Filling

For model RChgG: glycerin

### Nominal Case Size

40 mm (1 ½")

### Wetted Parts

Connection:

stainless steel 316L (1.4404)

Bourdon tube:

stainless steel 316L (1.4404)

gas-shielded arc welding

≤ 100 bar (1 500 psi) c-form

≥ 160 bar (2 000 psi) helical form

### Case Configuration

Connection:

welded

Position of the

connection:

- bottom connection
- centre back connection (rm)
- without

Mounting device:

- for centre back connection:
  - front flange for panel mounting (rmFr)
  - u-clamp for panel mounting (rmBFR)

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

0 – 1 bar to 0 – 600 bar (0 – 15 psi to 0 – 10 000 psi)

### Process Connection

½" NPT

### Window

Instrument glass

### Movement

Stainless steel



### 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 with window made of polycarbonate

## Ordering Information, Standard Pressure Ranges, Options

See pages 3 and 4

## Further Options

- IP65 (≤ 10 bar) blow-out plug no. 24
- Other than vertical installation (90°) only for model RChg
- GOST version for Russia and Kazakhstan

## Special Versions Upon Request

- Other process connections
- Other pressure ranges and/or special scales, e.g. dual scale bar/psi, coloured fields or ranges, dial inscriptions, negative scale
- Case parts 316L (1.4404)
- Other case fillings

## Accessories

Chemical seals:

see catalogue heading 7

Other accessory:

see catalogue heading 11

[www.armano-messtechnik.com](http://www.armano-messtechnik.com)

**ARMANO**

ARMANO Messtechnik GmbH

### Location Beierfeld

Am Gewerbepark 9 • 08344 Grünhain-Beierfeld  
Tel.: +49 3774 58 – 0 • Fax: +49 3774 58 – 545  
mail@armano-beierfeld.com

### Location Wesel

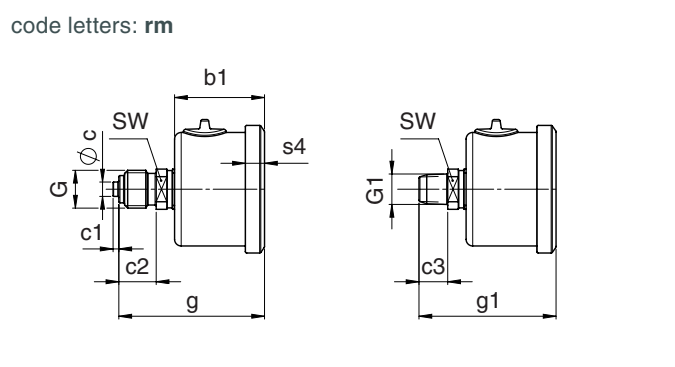
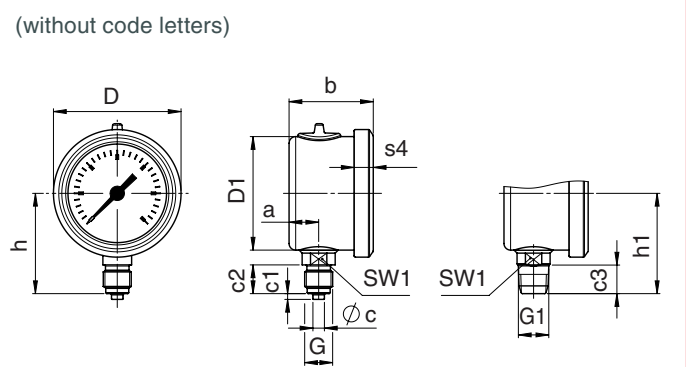
Manometerstraße 5 • 46487 Wesel-Ginderich  
Tel.: +49 2803 9130 – 0 • Fax: +49 2803 1035  
mail@armano-wesel.com

**1221**

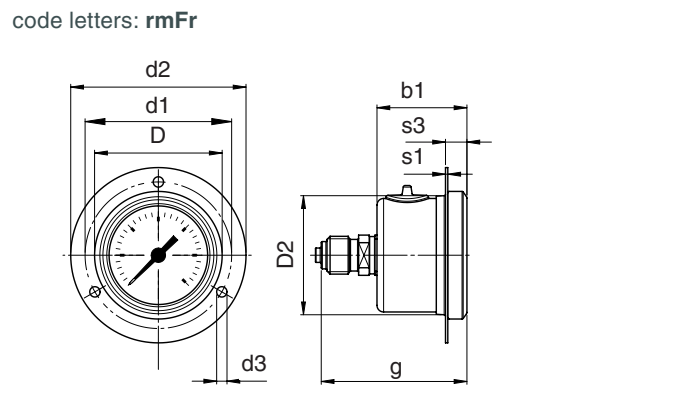
06/21

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

Bottom Connection	Centre Back Connection
without mounting device	

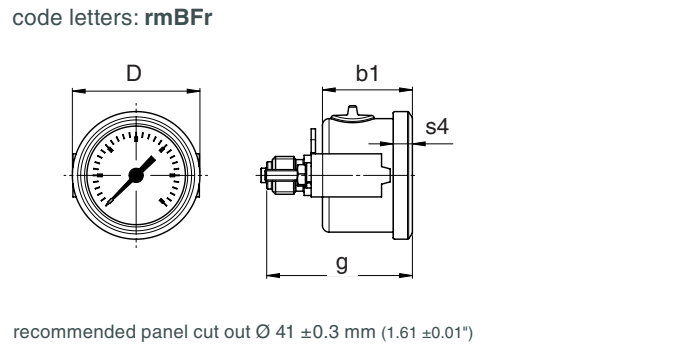


with front flange for panel mounting
--------------------------------------



recommended panel cut out  $\varnothing 42.5 \pm 0.3$  mm (1.67  $\pm$  0.01")

with u-clamp for panel mounting
---------------------------------



recommended panel cut out  $\varnothing 41 \pm 0.3$  mm (1.61  $\pm$  0.01")

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

NCS	a	b	b1	c	c1	c2	c3	D	D1	D2	d1	d2	d3	G	G1	g
40 1½"	10.3 0.41	29.5 1.16	31.5 1.24	4 0.16	2 0.08	10 0.39	10 0.39	44.5 1.75	39.5 1.56	41.5 1.63	51 2.01	61 2.4	3.6 0.14	G 1/8" B 1/8" BSP M10x1	1/8" NPT	48 1.89

g1	h <sup>±1</sup>	h1 <sup>±1</sup>	s1	s3	s4	SW	SW1	approx. weight <sup>1)</sup>	
								RChg	RChgG
48 1.89	35 1.38	35 1.38	0.8 0.03	7.5 0.3	6.5 0.26	14 0.55	10 0.39	0.08 0.18	0.09 0.2

Blow-out Device
-----------------



Optional
----------



<sup>1)</sup> data for version 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 40 mm (1 1/2")		<b>40</b>
Wetted material:	stainless steel		<b>- 3</b>
Case configuration:	case/connection	welded	<b>v</b>
	position of the connection	bottom connection	without code letters
		centre back connection	<b>rm</b>
	mounting device	without	without code letters
front flange for panel mounting		<b>Fr</b>	
u-clamp for panel mounting		<b>BFr</b>	
Pressure ranges:	-1 200 / 0 mbar	30" Hg vac. - 0 psi	
	-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	<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		
Process connection:	standard thread	1/8" NPT	1/8" NPT
	options	M 10x1	<b>M 10x1</b>
		G 1/8 B	<b>G 1/8 B</b>
		1/4" NPT	1/4" NPT
		G 1/4 B	<b>G 1/4 B</b>
	M 12x1.5	<b>M 12x1.5</b>	
		only for centre back connection (rm)	
Options:	see page 4		
Example:	<b>RChg 40 - 3v rmFr, 0 - 6 bar, 1/8" NPT</b>		

# Ordering Information, Further Options

<b>Basic Model:</b>	<b>Bourdon Tube Pressure Gauge with Crimped-on Ring Case</b>	<b>RChg</b>
<b>Model code:</b>		see page 3
<b>Options:</b>	red mark receiver gauge 0.2 – 1 bar (3 – 15 psi), scale 0 – 100 %  IP65 with blow-out plug no. 24 (reclosable) case polished leak test of the measuring unit wetted parts free of grease and oil up to 0 – 600 bar (0 – 10000 psi)  silicone-free version safety category S2 restrictor screw in the pressure inlet port, material: like process connection stainless steel  instrument tag	on the dial linear square  with helium leak detection up to 10 <sup>-9</sup> mbar l/s adjustment ≤250 bar (3000 psi) with dry air, ≥400 bar (5000 psi) with distilled water, dial marking: symbol crossed out oil can  window polycarbonate (PC) orifice Ø 0.6 mm (0.02") orifice Ø 0.3 mm (0.01")  stainless steel plate 12 x 55 mm (0.47 x 2.17"), wire mounting sticker on the case coverage
<b>Special Versions:</b> Please describe your requirements in cleartext!		