

# Bourdon Tube Pressure Gauges

Bayonet ring case stainless steel  
DW-Line (Double Weld)

**RCh/RChG**  
– 3vDW

## DW-Line

In order to meet special requirements even more effectively, especially in the food/bio/pharmaceutical industries, we have developed the DW-Line pressure gauges for chemical seal mounting. DW – Double Weld are Bourdon tube pressure gauges, which are welded to the chemical seal. The case of the pressure gauge is welded to the circular connecting piece (DW1) and the circular connecting piece is welded to the chemical seal (DW2). For this purpose, the circular connecting piece has a d8x5 process connection and the chemical seal has a corresponding bore.

## 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 1.0

**Case**  
With bayonet ring, stainless steel 304 (1.4301)

**Degree of Protection** (DIN EN 60 529/IEC 529)  
IP54  
IP65 for model RChG 100 and  
model RChG 160 (measuring span  $\geq 2.5$  bar)

**Blow-out Device**  
Model RCh blow-out plug in the back of the case,  $\varnothing 1"$  (25 mm)  
Model RChG 100 blow-out plug in the back of the case,  $\varnothing 40$  mm (1.57")  
Model RChG 160 blow-out device at the top of the case coverage

**Case Ventilation**  
Model RChG 100 without ventilation, but with internal pressure compensation via pressure equalising membrane  
Model RChG 160 via blow-out device

**Case Filling**  
Model RChG: glycerin

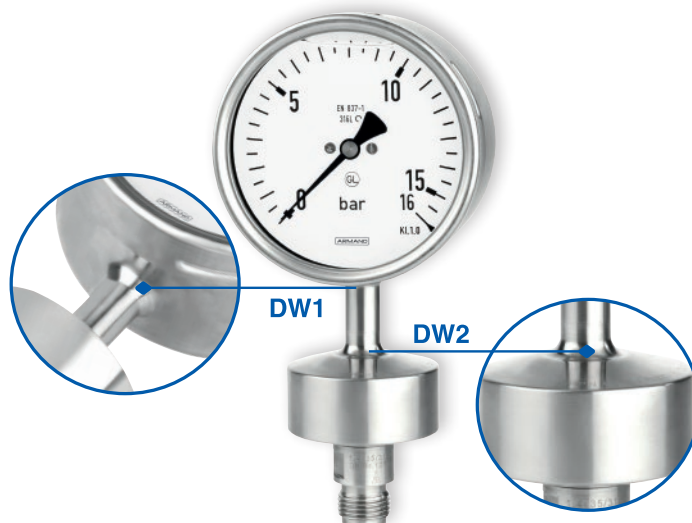
**Nominal Case Size**  
100, 160 mm (4, 6")

**Wetted Parts**  
Connection: stainless steel 316L (1.4404)  
Bourdon tube: stainless steel 316L (1.4404)  
gas-shielded arc welding  
 $\leq 40$  bar (600 psi) c-form  
 $\geq 60$  bar (800 psi) helical form

**Case Configuration**  
Connection: welded  
Position of the connection:  
- bottom connection  
- lower back connection (r)

**Pressure Ranges** (DIN EN 837-1)  
0 – 0.6 bar to 0 – 600 bar (0 – 10 psi to 0 – 10 000 psi)

**Process Connection**  
Welded connection piece d8x5 for welding to the chemical seal



**Window**  
Laminated safety 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

## Ordering Information, Standard Pressure Ranges, Options

See pages 3 and 4

## Further Options

- Position of connection radial at 3 o'clock, 9 o'clock, 12 o'clock or other than vertical installation (90°) for unfilled models
- GOST version for Russia and Kazakhstan

## Special Versions Upon Request

- Other pressure ranges and/or special scales, e.g. dual scale bar/psi, coloured fields or ranges, dial inscriptions, negative scale
- Stationary red pointer with window made of polycarbonate or laminated safety glass
- Min./max. drag indicator
- Case parts 316L (1.4404)
- Increased degree of protection, e.g. IP65 without case filling
- Other case fillings
- Model RChG for ambient temperatures down to  $-40$  °C ( $-40$  °F)
- Other position of connection

## Accessory

Chemical seals: see catalogue heading 7  
Electrical: see data sheet 1201.90  
see catalogue heading 9.1

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

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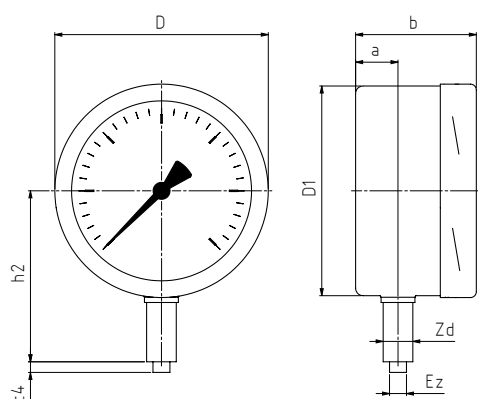
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**1201.7**  
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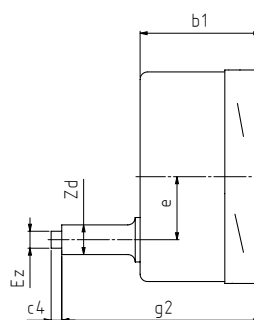
# Case Configurations, Code Letters, Dimensional Data and Weight, Blow-out Device

Bottom Connection	Lower Back Connection
without mounting device	

without code letters



code letter r

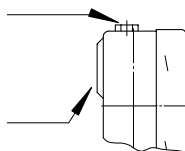


Dimensional Data (mm/inch) and Weight (kg/lb)													
NCS	a	b	b1	c4	D	D1	e	Ez	g2	h2 <sup>±1</sup>	Zd <sup>+0.5</sup>	approx. weight	
												RCh	RChG
100	20	55	55	5	101	99	30	8	92	79	14	0.45	0.80
4"	0.79	2.17	2.17	0.2	3.98	3.9	1.18	0.31	3.62	3.11	0.55	0.99	1.76
160	20	55	55	5	161	159	30	8	92	109	14	0.90	1.75
6"	0.79	2.17	2.17	0.2	6.34	6.26	1.18	0.31	3.62	4.29	0.55	1.98	3.86

## Blow-out Device

Blow-out device for model RChG 160  
 pressure range  $\leq 1.6$  bar blow-out device no. 5  
 $\geq 2.5$  bar blow-out device no. 3

Blow-out plug  $\varnothing 1"$  (25 mm) for models RCh 100, 160  
 $\varnothing 40$  mm (1.57") for model RChG 100  
 with pressure equalising membrane



## Ordering Information

<b>Basic Model:</b> Bourdon Tube Pressure Gauge with Bayonet Ring Case		<b>RCh</b>																																																																																										
<b>Case filling:</b>	without glycerin fillable version	without code letters <b>G</b> <b>(G)</b>																																																																																										
<b>Nominal case size:</b>	case Ø 100, 160 mm (4, 6")	<b>100, 160</b>																																																																																										
<b>Wetted material:</b>	stainless steel	<b>- 3</b>																																																																																										
<b>Case configuration:</b>	connection case/circular connecting piece welded position of the connection bottom connection lower back connection	<b>vDW</b> without code letters <b>r</b>																																																																																										
<b>Pressure ranges:</b>	<table border="1"> <tr><td>-1200 / 0 mbar</td><td>-30 "Hg</td><td>- 0 psi</td></tr> <tr><td>-0.6 / 0 bar</td><td></td><td></td></tr> <tr><td>-1 / 0 bar</td><td></td><td></td></tr> <tr><td>-1 / +0.6 bar</td><td>-30 "Hg</td><td>- 15 psi</td></tr> <tr><td>-1 / +1.5 bar</td><td>-30 "Hg</td><td>- 30 psi</td></tr> <tr><td>-1 / +3 bar</td><td>-30 "Hg</td><td>- 60 psi</td></tr> <tr><td>-1 / +5 bar</td><td>-30 "Hg</td><td>- 100 psi</td></tr> <tr><td>-1 / +9 bar</td><td>-30 "Hg</td><td>- 160 psi</td></tr> <tr><td>-1 / +15 bar</td><td>-30 "Hg</td><td>- 200 psi</td></tr> <tr><td></td><td>-30 "Hg</td><td>- 300 psi</td></tr> <tr><td>0 / 0.6 bar</td><td>0</td><td>- 10 psi</td></tr> <tr><td>0 - 1 bar</td><td>0</td><td>- 15 psi</td></tr> <tr><td>0 - 1.6 bar</td><td></td><td></td></tr> <tr><td>0 - 2.5 bar</td><td>0</td><td>- 30 psi</td></tr> <tr><td>0 - 4 bar</td><td>0</td><td>- 60 psi</td></tr> <tr><td>0 - 6 bar</td><td>0</td><td>- 100 psi</td></tr> <tr><td>0 - 10 bar</td><td>0</td><td>- 160 psi</td></tr> <tr><td>0 - 16 bar</td><td>0</td><td>- 200 psi</td></tr> <tr><td></td><td>0</td><td>- 300 psi</td></tr> <tr><td>0 - 25 bar</td><td>0</td><td>- 400 psi</td></tr> <tr><td>0 - 40 bar</td><td>0</td><td>- 600 psi</td></tr> <tr><td>0 - 60 bar</td><td>0</td><td>- 800 psi</td></tr> <tr><td></td><td>0</td><td>- 1 000 psi</td></tr> <tr><td>0 - 100 bar</td><td>0</td><td>- 1 500 psi</td></tr> <tr><td>0 - 160 bar</td><td>0</td><td>- 2 000 psi</td></tr> <tr><td></td><td>0</td><td>- 3 000 psi</td></tr> <tr><td>0 - 250 bar</td><td>0</td><td>- 4 000 psi</td></tr> <tr><td></td><td>0</td><td>- 5 000 psi</td></tr> <tr><td>0 - 400 bar</td><td>0</td><td>- 6 000 psi</td></tr> <tr><td>0 - 600 bar</td><td>0</td><td>- 10 000 psi</td></tr> </table>	-1200 / 0 mbar	-30 "Hg	- 0 psi	-0.6 / 0 bar			-1 / 0 bar			-1 / +0.6 bar	-30 "Hg	- 15 psi	-1 / +1.5 bar	-30 "Hg	- 30 psi	-1 / +3 bar	-30 "Hg	- 60 psi	-1 / +5 bar	-30 "Hg	- 100 psi	-1 / +9 bar	-30 "Hg	- 160 psi	-1 / +15 bar	-30 "Hg	- 200 psi		-30 "Hg	- 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	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	<b>e.g. 0 – 6 bar</b>
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<b>Process connection:</b>	welded connection piece d8x5	<b>d8x5</b>																																																																																										
<b>Options:</b>	see page 4																																																																																											
<b>Example:</b>	<b>RCh 100 – 3vDW, 0 – 6 bar, d8x5</b>																																																																																											

## Ordering Information, Further Options

Basic Model: Bourdon Tube Pressure Gauge with Bayonet Ring Case		RCh	
Model code:		see page 3	
Options:	adjustable pointer with aluminum mechanism		
	red mark on the dial		
	plastic clip red or green, external at the bayonet ring		
	stationary red pointer on the dial	adjustable with removable ring	
		stationary red pointer	adjusting mechanism stainless steel with window made of acrylic glass, screwed
		adjustable externally	removable key
			non-removable key
	special adjustment (reference points = odd values, e.g. 100 KN = 8.735 bar)		
	window	acrylic glass (PMMA)	
		polycarbonate (PC)	
	case polished		
	bayonet ring polished		
	silicone-free version		
	instrument tag	stainless steel plate 12 x 55 mm (0.47 x 2.17"), wire mounting	
		sticker on the case coverage	

**Special Versions:** Please describe your requirements in cleartext!

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