

Bourdon Tube Safety Pressure Gauges

Bayonet ring case stainless steel, safety category S3 according to DIN 16001 from 0 – 2 000 bar to 0 – 6 000 bar



RSCh
RSChG

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 16001)
Class 1.0

Case
With bayonet ring, stainless steel 304 (1.4301)

Degree of Protection (DIN EN 60529 / IEC 60529)
IP54
IP65 for model RSChG

Blow-out Device
Blow-out back, when pressure increases in the case, the entire case back separates, allowing full relief

Case Ventilation
Model RSChG without ventilation, but with internal pressure compensation via pressure equalising membrane

Case Filling
Model RSChG glycerin

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

Wetted Parts
Type – 3 connection stainless steel 316L (1.4404)
Bourdon tube NiFe-alloy, helical form
 NCS 160 (6") screwed
 NCS 100 (4") gas-shielded arc welding

Case Configuration
Connection screwed
Position of the connection - bottom connection
 - lower back connection (r)
 for model RSCh 100 up to
 max. 0 – 4 000 bar (60 000 psi)
Mounting device - without
 - back flange for surface mounting (Rh)
 - front flange for panel mounting (Fr)

Pressure Range (DIN 16001)
0 – 2 000 bar to 0 – 6 000 bar (0 – 30 000 psi to 0 – 80 000 psi)

Process Connection
Up to 2 000 bar (30 000 psi) G ½ B
From 2 500 bar (35 000 psi) high pressure connection with female
 thread M 16x1.5 and sealing cone for
 ¼" tube

Window
Laminated safety glass

Movement
Stainless steel

Dial
Aluminum white, scale black

Pointer
Aluminum black



option (see below)
100 % loadable up to full scale

Safety Category According to DIN 16001
S3, safety pressure gauge with break-proof solid front and blow-out back marking , see schematic drawing on page 2

Ordering Information, Standard Pressure Ranges, Options

See pages 3 and 4

Further Options

- Pressure ranges 0 – 2 000 bar, 0 – 2 500 bar, 0 – 3 000 bar,
 0 – 4 000 bar
 0 – 30 000 psi, 0 – 35 000 psi, 0 – 40 000 psi,
 0 – 50 000 psi, 0 – 60 000 psi
with increased durability and 100 % loadable up to full scale, maximum value mark (this option is not available for additional electrical accessories)
- Model RSChG for ambient temperatures down to –40 °C (–40 °F)

Special Versions Upon Request

- Special scales, e.g. dual scale bar / psi, coloured fields or ranges, dial inscriptions, negative scale
- Case parts 316L (1.4404), NCS 160
- Increased degree of protection, e.g. IP65 without case filling
- Other case fillings
- Other than bottom position of connection
- Certificates and approvals, e.g. GOST (see also website)

Accessories

Electrical see catalogue heading 9.1
see data sheet 1600.90
Other accessory see catalogue heading 11

www.armano-messtechnik.com



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

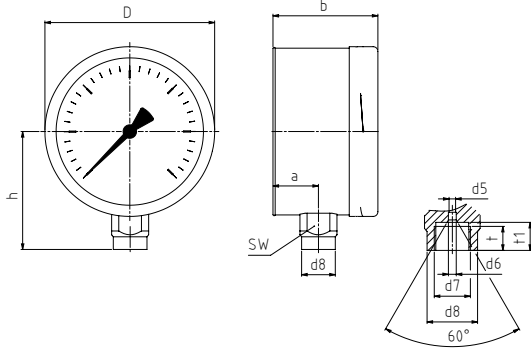
1640
07/22

Case Configurations, Code Letters, Dimensional Data and Weight, Schematic Drawing

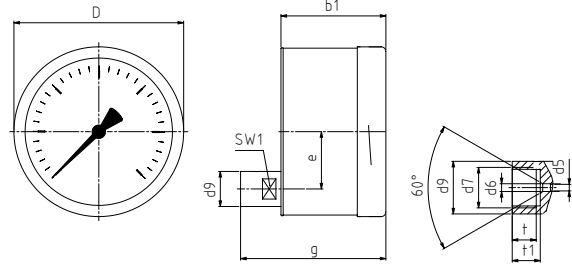
Bottom Connection Lower Back Connection (for NCS 100 (4") only)

without mounting device

without code letters

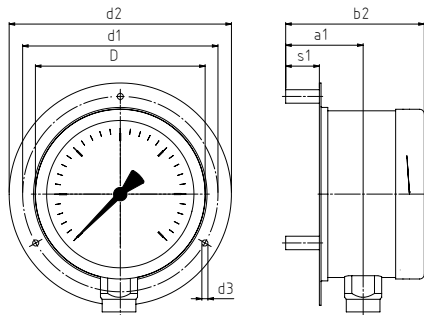


code letter r



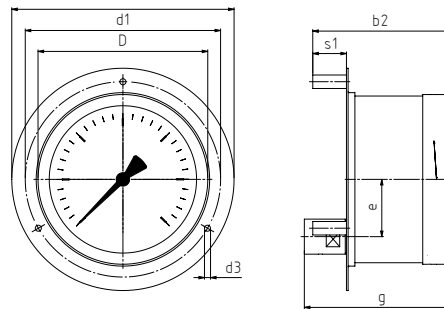
with back flange for surface mounting

code letters Rh



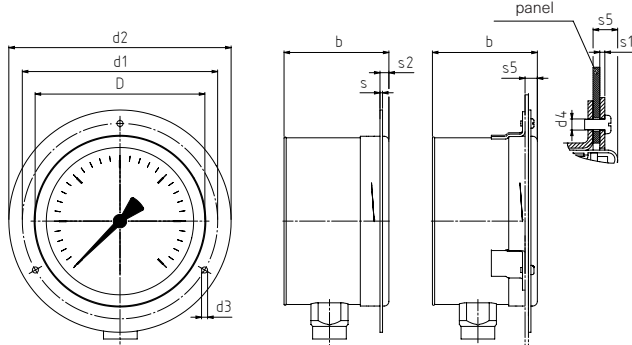
version Rh including 3 separate mounting spacers

code letters rRh



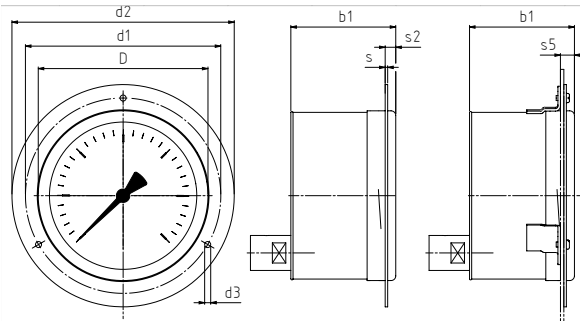
with front flange for panel mounting

code letters Fr



version Fr = 3 mounting brackets welded to the case and a removable three-hole front flange

code letters rFr

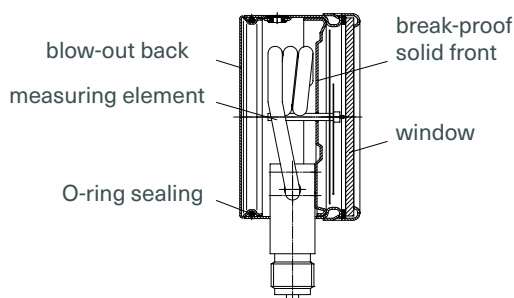


recommended panel cut out for NCS 100 (4") Ø 104 ±0.5 mm (4.09 ±0.02")

Dimensional Data (mm / inch) and Weight (kg / lb)

NCS	a	a1	b	b1	b2	D	d1	d2	d3	d4	d5	d6	d7	d8	d9	g	h ^{±1}	s	s1	s2	s5
100 4"	27 1.06	52 2.05	60 2.36	60 2.36	90 3.54	101 3.98	116 4.57	132 5.2	4.8 0.19	M4	2.6 0.1	4.2 0.17	M 16x1.5 HD	20 0.79	20.8 0.82	81 3.19	71 2.8	1 0.04	26 1.02	7 0.28	7 0.28
160 6"	42 1.65	72 2.83	84 3.31	84 3.31	114 4.49	161 6.34	178 7.01	196 7.72	5.8 0.23	M5				24 0.94	-	-	139 5.47	1.5 0.06	32 1.26	8 0.31	5 0.2

Schematic Drawing



t	t1	SW	SW1	approx. weight ¹⁾	
				RSh	RShG
9.5	11	22	17	0.65	1.00
0.37	0.43	0.87	0.67	1.43	2.20
				2.00	3.10
				4.41	6.83

¹⁾ data for version without mounting device

Ordering Information

Basic Model	Bourdon Tube Safety Pressure Gauge with Bayonet Ring Case			RSCh
Case filling	without			without code letters
	glycerin			G
Nominal case size	case Ø 100, 160 mm (4, 6")			100, 160
Wetted material	stainless steel			- 3
Case configuration	case / connection	screwed		without code letters
	position of the connection	bottom connection		without code letters
		lower back connection (for RSCh 100)		r
	mounting device	without		without code letters
back flange for surface mounting		Rh		
front flange for panel mounting		Fr		
Pressure ranges	0	-	2000 bar	
	0	-	2500 bar	
	0	-	3000 bar	
	0	-	4000 bar	e.g. 0 - 4000 bar
	0	-	5000 bar	
	0	-	6000 bar	
	0	-	30000 psi	
	0	-	35000 psi	
	0	-	40000 psi	
	0	-	50000 psi	
	0	-	60000 psi	
	0	-	70000 psi	
	0	-	80000 psi	
Process connection	standard thread	G ½ B ¹⁾		G ½ B
		high pressure connection female thread for ¼" tube with 60° cone	M 16x1.5	HP connection M 16x1.5
	options	high pressure connection female thread for ¼" tube with 60° cone	⅜" - 18 UNF	HP connection ⅜" - 18 UNF
		high pressure connection male thread with long connecting piece	⅜" - 18 UNF left	HP connection ⅜" - 18 UNF left
Options	see page 4			

Example

RSCh 100 - 3 Fr, 0 - 4000 bar, HP connection M 16x1.5

¹⁾ max. 0 - 2000 bar / max. 0 - 30000 psi

Ordering Information, Further Options

These options are to be ordered in written form. Please contact us to ensure compatibility when combining 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
Special adjustment	with another measurand than pressure, e.g. Nm
Window	polycarbonate (PC)
Case polished	
Bayonet ring polished	
Leak test of the measuring unit	with helium leak detection up to 10^{-9} mbar l/s
Restrictor screw in the pressure inlet port material: stainless steel	orifice \varnothing 0.8 mm (0.03") orifice \varnothing 0.6 mm (0.02") orifice \varnothing 0.3 mm (0.01")
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!