

Bourdon Tube Safety Pressure Gauges

Bayonet ring case stainless steel, safety category S3
according to DIN 16 001 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 16 001)
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 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)
Mounting device:
- without
- back flange for surface mounting (Rh)
- front flange for panel mounting (Fr)

Pressure Ranges (DIN 16 001)
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 G 1/2 B
From 2 500 bar high pressure connection with female thread M 16x1.5 and sealing cone for 1/4" 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 16 001
S3, safety pressure gauge with break-proof solid front and blow-out back

marking see also sectional drawing overleaf

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
- GOST version for Russia and Kazakhstan, class 1.6

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

Accessories

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

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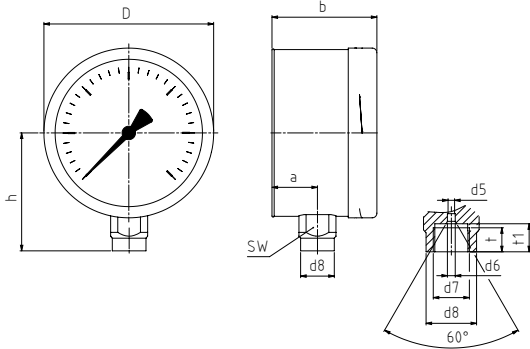
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Case Configurations, Code Letters, Dimensional Data and Weight, Schematic Drawing

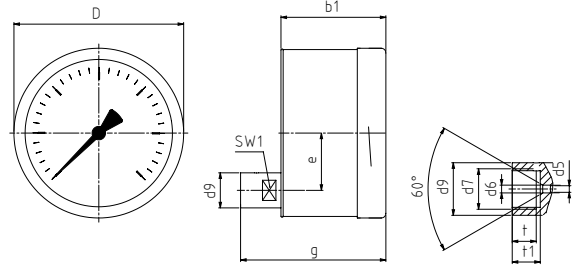
Bottom Connection Lower Back Connection (Only NCS 100)

without mounting device

without code letters

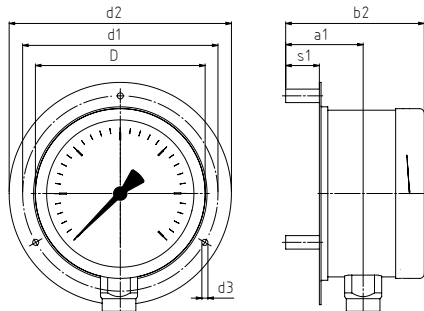


code letter r

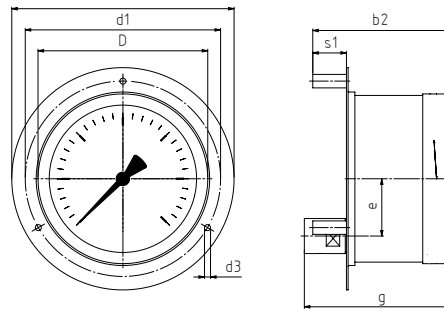


with back flange for surface mounting

code letters Rh



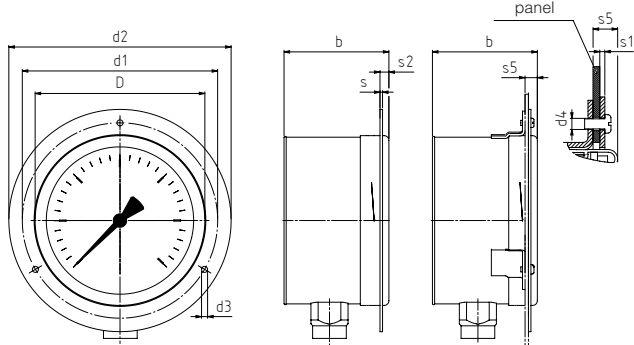
code letters rRh



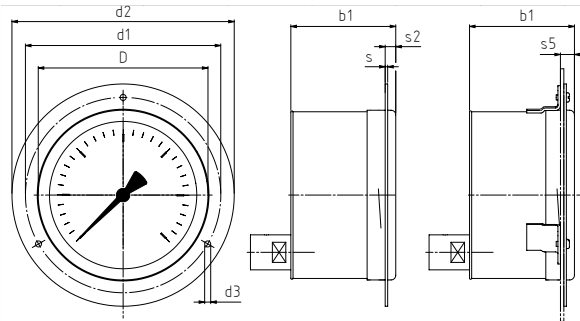
version Rh including 3 separate mounting spacers

with front flange for panel mounting

code letters Fr



code letters rFr



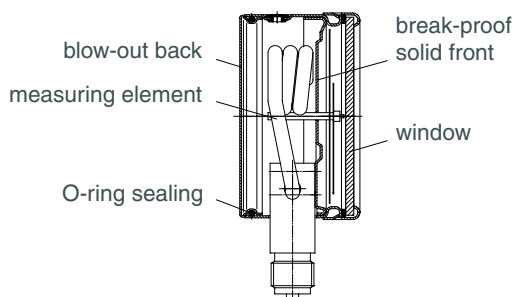
version Fr = 3 mounting brackets welded to the case and a separate three-hole front flange

recommended panel cut out for NCS 100 (4") $\varnothing 104 \pm 0.5$ 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	27	52	60	60	90	101	116	132	4.8	M4	2.6	4.2	M16x1.5 HD	20	20.8	81	71	1	26	7	7
4	1.06	2.05	2.36	2.36	3.54	3.98	4.57	5.2	0.19	0.79				0.82	3.19	2.8	0.04	1.02	0.28	0.28	
160	42	72	84	84	114	161	178	196	5.8	M5	0.1	0.17		24	-	-	139	1.5	32	8	5
6	1.65	2.83	3.31	3.31	4.49	6.34	7.01	7.72	0.23					0.94			5.47	0.06	1.26	0.31	0.2

Schematic Drawing



NCS	t	t1	SW	SW1	approx. weight ¹⁾	
					RSCh	RSChG
100					0.65	1.00
4	9.5	11	22	17	1.43	2.20
160	0.37	0.43	0.87	0.67	2.00	3.10
6					4.41	6.83

¹⁾ data for versions 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 (only RSCh 100)		r
	mounting device	without		without code letters
back flange for surface mounting		Rh		
front flange for panel mounting		Fr		
Pressure ranges:	0 – 2 000	bar		
	0 – 2 500	bar		
	0 – 3 000	bar		
	0 – 4 000	bar		e.g. 0 – 4 000 bar
	0 – 5 000	bar		
	0 – 6 000	bar		
	0 – 30 000	psi		
	0 – 35 000	psi		
	0 – 40 000	psi		
	0 – 50 000	psi		
	0 – 60 000	psi		
	0 – 70 000	psi		
	0 – 80 000	psi		
Process connection:	standard thread	G ½ B max. 0 – 2 000 bar		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	¾" – 18 UNF		HP connection ¾" – 18 UNF
Options:	see page 4			

Example:

RSCh 100 – 3 Fr, 0 – 4000 bar, HP connection M16x1.5

