

Bourdon Tube Pressure Gauges

Solid Front and Blow-out Back

Case and Bayonet Ring Stainless Steel Standard (RSCh) or Liquid Filled (RSChG)

NCS 63 (2½") Models

RSCh 63

RSChG 63

Application

For fluid and gaseous media (compatible to the wetted parts) which are not highly viscous and do not tend to polymerize, especially where a sealed case, chemical resistance and high safety standards are required.

Nominal Case Size (NCS)

63 mm (2½")

Accuracy (EN 837-1)

Class 1.6 (better than ± 1.6 % of full scale value)

Class 2.5 for pressure ranges ≥ 600 bar (≥ 10,000 psi)

Pressure Ranges (EN 837)

Version -1*: 0-0.6 up to 0- 600 bar resp. 0-10 up to 0- 8,000 psi

Version -3*: 0-0.6 up to 0-1000 bar resp. 0-10 up to 0-20,000 psi

also all corresponding vacuum and compound ranges (* Please compare below.)

Pressure Limitations

Steady pressure: $\frac{3}{4}$ of full scale value

Cyclic pressure: $\frac{2}{3}$ of full scale value

Overpressure: full scale value

Protection Type (EN 60 529 / IEC 529)

Model RSCh 63: IP 54 / Model RSChG 63: IP 65

Further information about advantages, applications, specifications, temperature limitations and pressure ranges of Bourdon tube pressure gauges accuracy class 1.0 to 2.5 according to EN 837-1 are to find on general information leaflet 1000.

Standard Configuration

Connection

Bottom connection G ¼ B (¼" BSP), at option ¼" NPT, version RSCh 63 optionally with lower back connection (r)

Wetted Parts

Ordering Code - 1 : Socket¹⁾ = brass

Bourdon tube:

≤ 40 bar = bronze, C-form, soft soldered (600 psi)

≥ 60 bar = bronze, helical²⁾, silver brazed (800 psi)

Ordering Code - 3 : Socket¹⁾ = 316 stainless steel (1.4571)

Bourdon tube:

≤ 60 bar = 316 stainless steel (1.4571), (1,000 psi) C-form, argon arc welded

≥ 100 bar = 316 stainless steel (1.4571), (1,500 psi) helical²⁾, argon arc welded

Movement

Version -1 = brass/German silver, -3 = stainless steel

Dial

Aluminum alloy, black figures, white background

Pointer

Aluminum alloy, black

Case and Ring

304 stainless steel (1.4301), bayonet ring

Case Filling

RSChG 63 only: glycerine

Lens

Laminated safety glass, marked with "SAFETY GLASS"

Safety Features

According to S3 EN 837-1: solid front between measuring system and dial and full blow-out safety back, both 304 stainless steel (1.4301). Should the Bourdon tube rupture, the entire case back separates, allowing full relief. Filled version with pressure equalizing membrane.

¹⁾ = shank (EN 837-1) ²⁾ = coiled (EN 837-1)



Optional Special Configurations

- Wetted parts monel = ordering code -6, from 0-1 up to 0-600 bar and 0-10 up to 0-10,000 psi, movement stainless steel, Bourdon tube argon arc welded, ≤ 60 bar (1,000 psi) C-form, ≥ 100 bar (1,500 psi) helical, also available with lower back connection (r)
- Version -1 with pressure ranges up to 1,000 bar upon request
- Model RSChG 63-3 or -6 with lower back connection (only without energy release test and without the referring dial marking)
- Version -1 with lower back connection upon request (filled version only without energy release test and without dial marking)
- Version for high purity gas services with
 - NPT male thread connection, or
 - high purity gas connection suitable for VCR® connection with
 - female union nut 304 stainl. steel (1.4301), stem (made from one piece) 316 L (1.4404), or
 - male thread connection screw and welded stem, both 316 L stainl. steel (1.4404)
- free of grease and oil, ECD-quality, helium leak detection; versions suitable for VCR® connection: inlet port with higher surface quality
- High purity gas connection suitable vor VCR® connection as before but short version, rigid or with connection screw, uponrequest
- Other process connections upon request
- Inlet port restrictor screw brass, stainless steel or monel
- Special scales, dual ranges etc.
- Refrigerant gauge version, see technical info. sheet T01-000-015
- Receiver gauge 0.2-1 bar or 3-15 psi
- Adjustable pointer
- Stationary red pointer on the dial
- Other than vertical installation
- Top or side connection
- Oxygen service, free of grease and oil
- Electrical accessories for RSCh 63, see data sheets 1619-1 ff.

How to Order:

Model code/NCS:	RSCh 63 (IP 54, dry version)
	RSChG 63 (IP65, liquid filled)
	RSCh(G) 63 (IP 65, fillable version)
Wetted Parts:	Ordering code -1 or -3 (see left and above)
Code letters for case configuration	Rh, Fr, r or rFr (standard case = bottom connection = without code letter), compare reverse side
Pressure range:	according to EN 837-1 e.g. 0-4 bar or 0-600 psi
Process connection:	G ¼ B (¼" BSP = standard) or ¼" NPT others see above
Special options:	(see above)

Examples for Ordering Information:

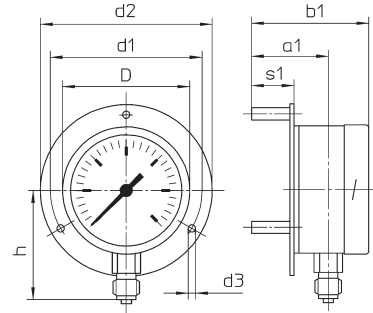
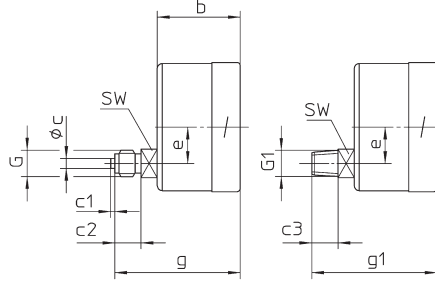
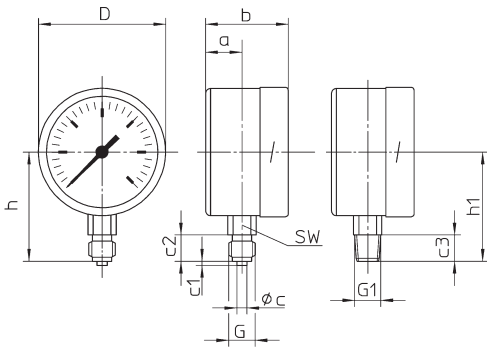
- RSCh 63-3, r, 0-6 bar, G ¼ B (¼" BSP)
- RSChG 63-1, 0-1000 psi, ¼" NPT

Case Configurations, Dimensional Data and Weight

Bottom connection
(without code letter)

Lower back connection,
code letter: **r**
(versions -3 and -6; for -1 upon request)

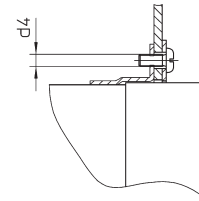
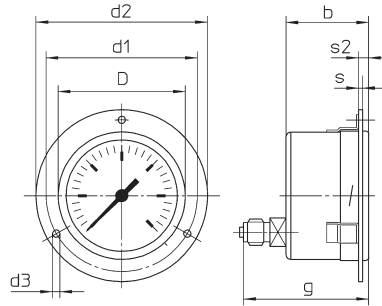
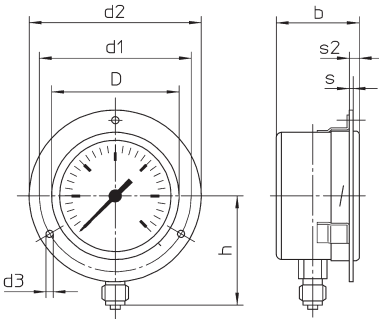
Bottom connection,
rear mounting flange,
code letters: **Rh**



Case configuration Rh includes 3 separate mounting spacers.

Bottom connection,
front mounting flange,
code letters: **Fr**

Lower back connection,
front mounting flange,
code letters: **rFr**
(versions -3 and -6; for -1 upon request)



Case configurations Fr, rFr = 3 mounting brackets welded to the case and a separate cover front flange.

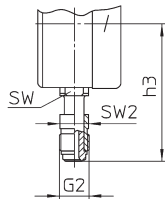
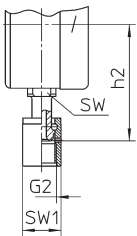
Special Version for High Purity Gas Services e.g.:

High purity gas bottom connection

- Stem and female union nut suitable for VCR® connection
- Stem and male connection screw suitable for VCR® connection

Extra short high purity gas bottom connection

- For example rigid male high purity gas connection suitable for VCR® connection (dimensional drawings upon request)



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

NCS	a	a1	b	b1	c	c1	c2	c3	D	d1	d2	d3	d4	e	G	G1
63 2½"	18 .71	38 1.50	41 1.61	61 2.40	5 .2	2 .08	13 .51	13 .51	64 2.52	75 2.95	85 3.35	3.6 .14	M3	18 .71	G ¼ B ¼" BSP	¼" NPT

G2	g±1	g1±1	h±1	h1±1	h2±1	h3±1	s	s1	S2	SW	SW1	SW2	Weight (approx.)	
													RSCh	RSChG
9/16-18 UNF	63 2.48	63 2.48	54 2.13	54 2.13	57 2.24	68 2.68	1 .04	21 .83	7 0.28	14 .55	19 .75	14 .55	.25 .55	.38 .84