

# Bourdon Tube Pressure Gauges

NCS 63

Models

Bayonet Ring Case Stainless Steel, American Type with Wide Ring  
Standard (RCha) or with Case Filling (RChaG)

## RCha 63

## RChaG 63

### Applications

For fluid and gaseous media (compatible to the wetted materials) which are not highly viscous and do not tend to polymerize, especially where a sealed case and/or chemical resistance is required.

### Nominal Case Size (NCS)

63 mm (2½")

### Accuracy (EN 837-1)

Class 1.6 (class 2.5 for ranges 0-600 and 0-1000 bar, ≥ 8,000 psi)

### Pressure Ranges (EN 837-1)

Version -1: 0-0.6 to 0-600 bar resp. 0-10 to 0-8,000 psi,  
Version -3: 0-0.6 to 0-1000 bar resp. 0-10 to 0-20,000 psi,  
also all corresponding standard vacuum and compound ranges

### Pressure Limitations

Steady pressure: ¾ of full scale value  
Cyclic pressure: ⅔ of full scale value  
Overpressure: full scale value

### Protection Type (EN 60 529 / IEC 529)

Model RCha: IP 54 / Model RChaG: IP 65

**Further information** about advantages, applications, specifications and pressure ranges of Bourdon tube pressure gauges of accuracy class 1.0 to 2.5 can be found in our **model overview 1000**.

## Standard Configuration

### Connection

G ¼ B (= ¼" BSP), at option ¼" NPT, bottom connection;  
optionally lower back (r) or center back connection (rm)

### Wetted Parts

Ordering code -1 : **Socket:** = brass  
**Bourdon tube:**  
≤ 40 bar = bronze, C-form, soft soldered  
(≤ 600 psi)  
≥ 60 bar = bronze, helical, silver brazed  
(≥ 800 psi)

Ordering code -3 : **Socket:** = 316Ti stainless steel (1.4571)  
**Bourdon tube:**  
≤ 60 bar = 316Ti stainless steel (1.4571), C-form, argon arc welded  
(≤ 1,000 psi)  
≥ 100 bar = 316 Ti stainl. steel (1.4571), helical, argon arc welded  
(≥ 1,500 psi)

### Movement

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

### Dial

Aluminum alloy, black figures, white background

### Pointer:

Aluminum alloy, black

### Case and Ring

Bayonet ring case 304 stainless steel (1.4301), ring polished, wide American type

### Case Filling

Model RChaG only: glycerine filling

### Lens

Version -3: laminated safety glass, version -1: single strength glass



### Safety Features

Top blow-out assembly; version rFr (see reverse side) with filling plug that can be used for compensation of internal pressure (recommended for pressure ranges ≤ 6 bar / ≤ 100 psi)

[This filling plug is going to replace the blow-out assembly for all case configurations in future]

## Optional Special Configurations

- Other connection threads or sizes upon request
- Version -1 with pressure range 1000 bar, 10,000 or 15,000 psi, Bourdon tube = 316 stainless steel (1.4571), helical, silver brazed
- Wetted parts monel = ordering code: -6, 0-1 up to 0-600 bar, and 0-15 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, bottom or lower back connection (center back connection not available)
- Inlet port restrictor screw brass, stainless steel, or monel
- Special scales, dual ranges
- Receiver gauge 0.2-1 bar or 3-15 psi
- Refrigerant gauges with temperature scale, compare technical information leaflet T01-000-015
- Adjustable pointer
- Stationary red pointer on the dial
- Maximum-indicating pointer (pressure ranges ≥ 0-2.5 bar resp. ≥ 0-30 psi) or stationary red pointer with external adjustment, acrylic glass lens
- Other than vertical installation
- Top or side connection
- 1" blow-out in the back (dry version only, bottom or lower back connection)
- Limit switch contacts (reed switches), see data sheet 1219.4

## How to Order:

Model code: **RCha 63** (IP 54, dry version)  
**RChaG 63** (IP 65, filled version)  
**RCha(G) 63** (IP 65, fillable version)

Wetted parts: brass / bronze = ordering code -1  
316 stainl. steel = ordering code -3

Code letters for case configuration: **r, rm, Rh, rRh, rmRh, rFr, rmFr, rBFr or rmBFr**, compare reverse side (standard = bottom connection, without code letter)

Pressure range: according to EN 837-1  
**e.g. 0-4 bar or 0-600 psi**

Connection thread: **G ¼ B** (¼" BSP) = standard, or ¼" **NPT**

Special options: see above

### Examples for Ordering Information:

- RCha 63-3, rFr, 0-6 bar, ¼" BSP
- RChaG 63-1, rRh, 0-1,000 psi, ¼" NPT



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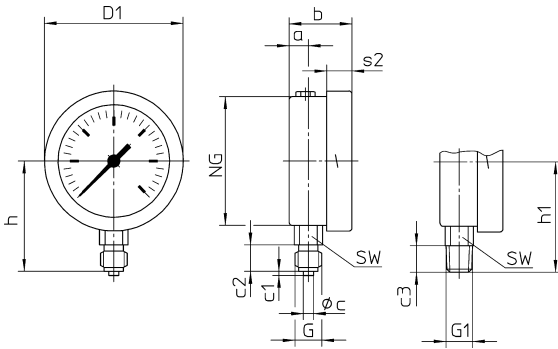
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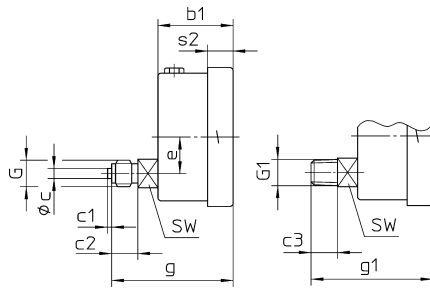
**1210**  
**10/05**

# Case Configurations, Dimensional Data, and Weight

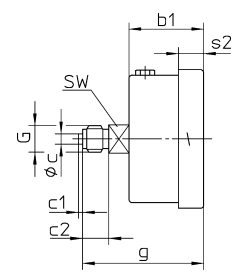
Bottom connection,  
(without additional code letter)



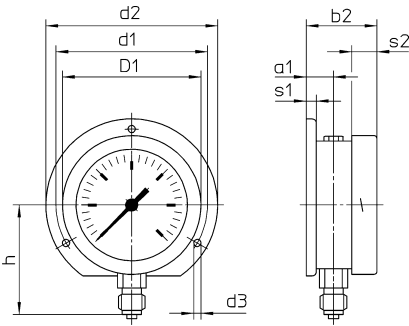
Lower back connection,  
code letter: r



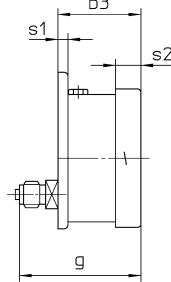
Center back connection,  
code letters: **rm**



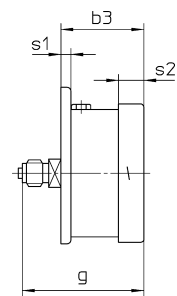
Bottom connection,  
rear mounting flange,  
code letters: **Rh**



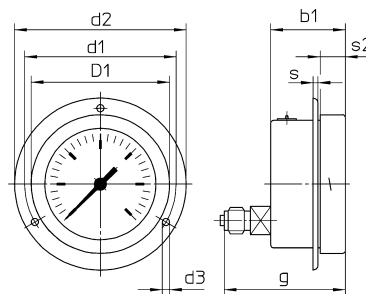
Lower back connection,  
rear mounting flange,  
code letters: **rRh**



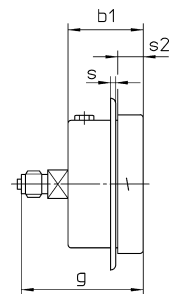
Center back connection,  
rear mounting flange,  
code letters: **rmRh**



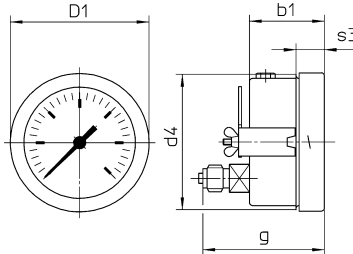
Lower back connection,  
front mounting flange,  
code letters: **rFr**



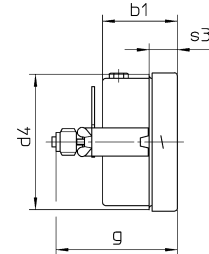
Center back connection,  
front mounting flange,  
code letters: **rmFr**



Lower back connection,  
U-clamp for panel mounting,  
code letters: **rBFr**



Center back connection,  
U-clamp for panel mtg.,  
code letters: **rmBFr**



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

NCS	a	a1	b	b1	b2	b3	c	c1	c2	c3	D1	d1	d2	d3	d4	e
63 2½"	9.5 .37	13.5 .53	31 1.22	37 1.46	35 1.38	41 1.61	5 .20	2 .08	13 .51		68.5 2.70	75 2.95	85 3.35	3.7 .15	67 2.64	18 .71
G	G1	g	g1	h±1	h1±1	NG	s	s1	s2	s3	SW	Weight (approx.)				
G ¼ B ¼" BSP	¼" NPT	60 2.36		54 2.13		63 2.48	2.5 .10	5 .20	12.5 .49	14 .55	14 .55	RCha	RChaG	.18 .40	.25 .55	

The information in this leaflet is given in good faith, but we reserve the right to make changes without notice.