

Bourdon Tube Pressure Gauges

Crimped-on ring case stainless steel

RChg 80
RChgG 80

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 1.6

Class 2.5 for pressure ranges 0 – 600 bar and 0 – 1000 bar
(0 – 10,000 and 0 – 15,000 psi)

Case

With polished crimped-on ring, stainless steel 304 (1.4301)

Degree of Protection (DIN EN 60 529/IEC 529)

IP54

IP65 for model RChgG with closed blow-out plug

Blow-out Device

Blow-out plug at the top of the case coverage

Case Ventilation

Via blow-out plug, ventilation required for internal pressure compensation for measuring spans ≤ 10 bar, and also recommended for other pressure ranges if the operating conditions permit

Case Filling

For model RChgG: glycerin

Nominal Case Size

80 mm (3")

Wetted Parts

Type – 3: connection: stainless steel 316L (1.4404)
Bourdon tube: stainless steel 316L (1.4404)
gas-shielded arc welding
 ≤ 60 bar (800 psi) c-form
 ≥ 100 bar (1,500 psi) helical form

O-ring sealing: FPM
Type – 1: connection: brass
Bourdon tube: bronze
 ≤ 40 bar (600 psi) c-form
 ≥ 60 bar (800 psi) soft-soldered
helical form
silver brazed

O-ring sealing: NBR

Case Configuration

Connection: screwed

Position of the connection:
- bottom connection
- centre back connection (**rm**)

Mounting device:
- without
- back flange for surface mounting (**Rh**)
- front flange for panel mounting (**Fr**)
- u-clamp for panel mounting (**BFr**)

Pressure Ranges (DIN EN 837-1)

0 – 0.6 bar to 0 – 1000 bar (0 – 10 psi to 0 – 15,000 psi) for type – 3
0 – 0.6 bar to 0 – 600 bar (0 – 10 psi to 0 – 10,000 psi) for type – 1

Process Connection

G $\frac{1}{2}$ B ($\frac{1}{2}$ " BSP)

Window

Laminated safety glass for type – 3
Instrument glass for type – 1



Movement

Stainless steel for type – 3
Brass / German silver for type – 1

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

Special Versions and Further Options

- Other process connections upon request
- Increased measurement accuracy
- Other pressure ranges and/or special scales, e.g. dual scale bar/psi, coloured fields or ranges, dial inscriptions, negative scale
- Version as refrigeration gauge with temperature scale
- Degree of protection IP65
- Other case fillings upon request
- Model RChg 80 – 3, bottom connection for ambient temperatures to -40 °C (-40 °F)
- Position of connection radial at 3 o'clock, 9 o'clock, 12 o'clock (others upon request) or other than vertical installation (90°), for unfilled models
- GOST version for Russia, Ukraine, Kazakhstan, Belarus

Accessories

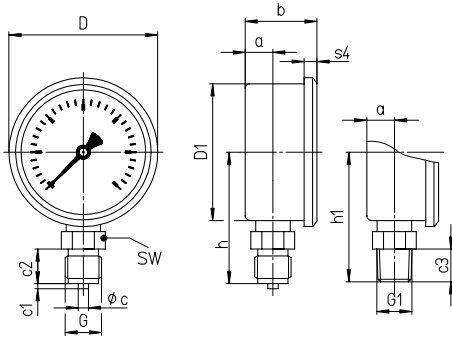
See catalogue heading 11

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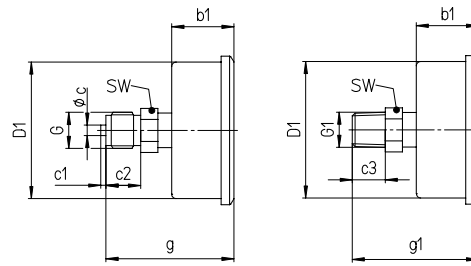
Case Configurations, Code Letters, Dimensional Data and Weights, Blow-out Device

| Bottom Connection | Centre Back Connection |
|-------------------------|------------------------|
| without mounting device | |

(without code letters)



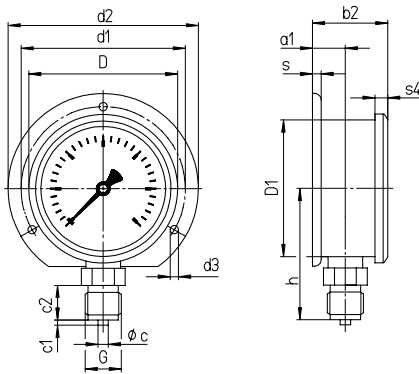
code letters: **rm**



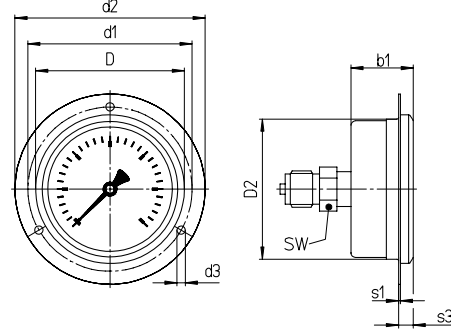
with back flange for surface mounting

with front flange for panel mounting

code letters: **Rh**



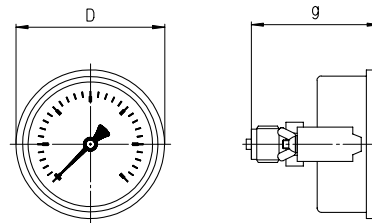
code letters: **rmFr**



recommended panel cut out $\varnothing 84 \pm 0.5 \text{ mm}$ ($3.31 \pm 0.02''$)

with u-clamp for panel mounting

code letters: **rmBFr**



recommended panel cut out $\varnothing 81 \pm 0.5 \text{ mm}$ ($3.19 \pm 0.02''$)

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

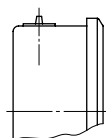
| NCS | D | D1 | D2 | a | a1 | b | b1 | b2 | c | c1 | c2 | c3 | d1 | d2 | d3 | G | G1 |
|----------|------------|------------|------------|------------|------------|--------------|------------|------------|-----------|-----------|------------|------------|------------|-------------|-------------|---------------------|----------|
| 80 3" | 86 3.39 | 79 3.11 | 81 3.19 | 16 0.63 | 19 0.75 | 41.5 1.63 | 36 1.42 | 44 1.73 | 6 0.24 | 3 0.12 | 20 0.79 | 19 0.75 | 95 3.74 | 110 4.33 | 4.8 0.19 | G 1/2 B M 20x1.5 | 1/2" NPT |

| g | g1 | h | h1 | s | s1 | s3 | s4 | SW | approx. weight ¹⁾ | |
|------------|------------|------------|------------|----------|-----------|-----------|-----------|------------|------------------------------|-------------|
| | | | | | | | | | RChg | RhgG |
| 74 2.91 | 73 2.87 | 76 2.99 | 75 2.95 | 5 0.2 | 1 0.04 | 9 0.35 | 8 0.31 | 22 0.87 | 0.34 0.75 | 0.50 1.1 |

Blow-out Device

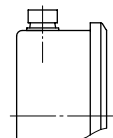
Optional

Blow-out plug no. 19



Model RChgG, case configurations bottom connection, rm:

Blow-out plug no. 24 (reclosable, IP65)



¹⁾ data for versions without mounting device

Ordering Information

| Basic Model: | | Bourdon Tube Pressure Gauge with Crimped-on Ring Case | | RChg |
|----------------------------------|----------------------------|---|---------------|-----------------------|
| Case filling: | without | | | without code letters |
| | glycerin | | | G |
| | fillable version | | | (G) |
| Nominal case size: | case Ø 80 mm (3") | | 80 | |
| Wetted material: | copper alloy | | - 1 | |
| | stainless steel | | - 3 | |
| Case configuration: | case/connection | screwed | | without code letters |
| | position of the connection | bottom connection | | without code letters |
| | | centre back connection | | rm |
| | mounting device | without | | without code letters |
| back flange for surface mounting | | Rh | | |
| front flange for panel mounting | | Fr | | |
| u-clamp for panel mounting | | BFr | | |
| Pressure ranges: | -1200 / 0 mbar | 30" hg vac. | - 0 psi | |
| | -0.6 / 0 bar | | | |
| | -1 / 0 bar | | | |
| | -1 / +0.6 bar | 30" hg vac. | - 15 psi | |
| | -1 / +1.5 bar | 30" hg vac. | - 30 psi | |
| | -1 / +3 bar | 30" hg vac. | - 60 psi | |
| | -1 / +5 bar | 30" hg vac. | - 100 psi | |
| | -1 / +9 bar | 30" hg vac. | - 160 psi | |
| | -1 / +15 bar | 30" hg vac. | - 200 psi | |
| | | 30" hg vac. | - 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 | e.g. 0 - 6 bar |
| | 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 | | |
| 0 - 1000 bar | for type - 3 | 0 - 15,000 psi | | |
| Process connection: | standard thread | G ½ B | | G ½ B |
| | options | ½" NPT | | ½" NPT |
| | | M20x1.5 | | M 20x1.5 |
| Options: | see page 4 | | | |

Example:

RChg 80 - 3 rmFr, 0 - 6 bar, G ½ B

