

Bourdon Tube Pressure Gauges 4000 bar

Bayonet Ring Case Stainless Steel
Standard (RSCh) or with Liquid Filling (RSChG)

Accuracy Class 1,0 NCS 100 Models
160

RSCh
RSChG

Application

High pressure measurement up to 4000 bar (60,000 psi)

Nominal Case Sizes

100 mm (4"), 160 mm (6")

Accuracy

according to EN 837-1
Class 1.0 (accuracy indication $\pm 1.0\%$ of full scale value)

Pressure Range

0-4000 bar (0-60,000 psi)

Pressure Limitations

at steady load: full scale value
at dynamic load: 65% of full scale value
Overrange protection: max. full scale value

Protection Type (EN 60 529 / IEC 529)

Model RSCh: IP 54 / Model RSChG: IP 65

Further information on advantages, applications, metrological features and pressure ranges of all available bourdon tube pressure gauges of accuracy class 1.0 to 2.5 can be found on **general information leaflet 1000**.

Standard Version

Process Connection

High pressure connection with female thread M 16x1.5 and cone for 1/4" tube, NCS 160 (6") with fitting for gauge holder bracket

Wetted Parts

Version - 3 :
Socket: 1.4404 (316 stainless steel¹⁾)
Bourdon tube: NiFe alloy, helical,
NCS 160 (6") screwed,
NCS 100 (4") argon arc welded

Movement

Stainless steel

Dial

Aluminum, black figures, white background

Pointer

Aluminum, black

Case and Ring

1.4301 (304 stainless steel), bayonet ring

Case Filling (Model RSChG only)

Glycerine

Window

Laminated safety glass, thickness of 4 mm (.16") for NCS 100 (4"),
thickness of 6 mm (.24") for NCS 160 (6"),
marked with "SAFETY GLASS"

Safety Features

Safety version similar to S3 according to EN 837-1 with solid front between measuring system and dial, as well as a blow-out back; should the bourdon tube pressurise, the entire case back separates, allowing full relief; filled versions additionally with pressure equalizing membrane, for internal pressure compensation

Accessories for NCS 160:

Gauge holder bracket aluminum black, distance 60 mm (2.36"), model no. Z-067001, included to shipment for standard version (Mgh) of NCS 160 (6").

¹⁾ respectively NCS 160 may still be supplied with socket made of 1.4401 as long as there is stock in store, details upon request



Special Versions

- HP connection 9/16-18 UNF (for 1/4" tube) and others upon request
- Pressure ranges 0-3000 bar (0-40,000 psi), others upon request
- Special scales, e.g. double scales or with fine division (knife-edge pointer)
- Adjustable pointer, mechanism aluminum
- Adjustable stationary red pointer on the dial upon request
- Other than vertical installation, e.g. 90° to the right
- Other versions of a gauge holder bracket for NCS 160 (6"):
Aluminum black, distance 100 mm (3.94") = order no. Z-067002
Aluminum black, distance 160 mm (6.3") = order no. Z-067003
Stainless steel, distance 100 mm (3.94") = order no. Z-063002
Stainless steel, distance 160 mm (6.3") or 60 mm (2.36") upon request
- Electrical accessories (compare data sheets 9000 ff) upon request

Ordering Information:

Please specify:

Basic model: **RSCh** = no case filling
RSChG = liquid filled case (glycerine)

Nominal case size: **100, 160**

Ordering code for wetted parts: **- 3**, compare left

Code letters for case configuration: **Rh or Fr**, (compare reverse side)
Standard case version = no code letters

Pressure range: **0-4000 bar**

Special options: (see above)

Examples for Ordering Information:

- RSCh 100-3, 0-4000 bar
- RSChG 160-3, Fr, 0-4000 bar



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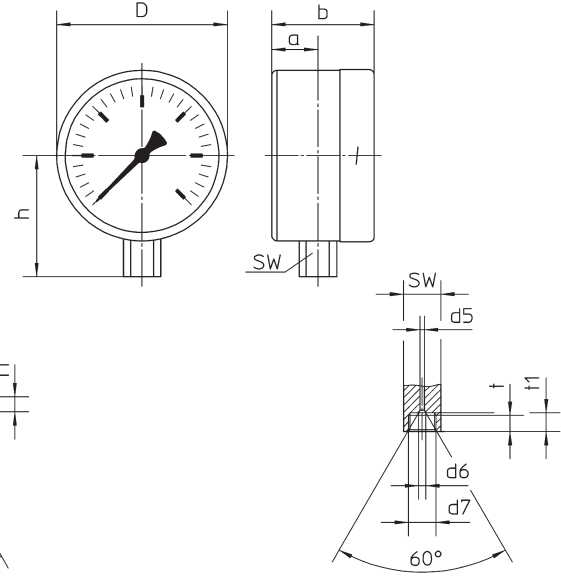
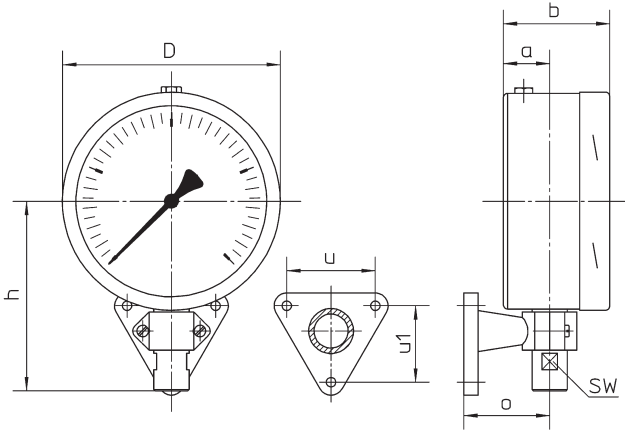
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04/15

Case Configuration, Code Letters, Dimensional Data and Weight

Bottom connection,
standard version (no code letters required for orders)

NCS 160: for gauge holder bracket (**Mgh**)

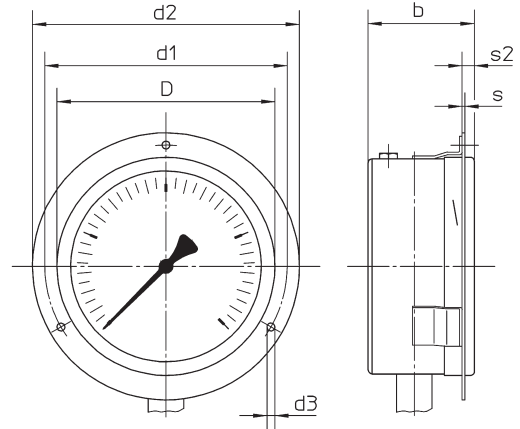
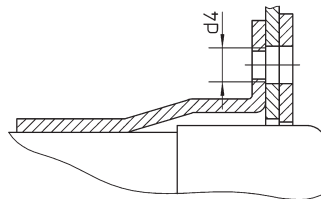
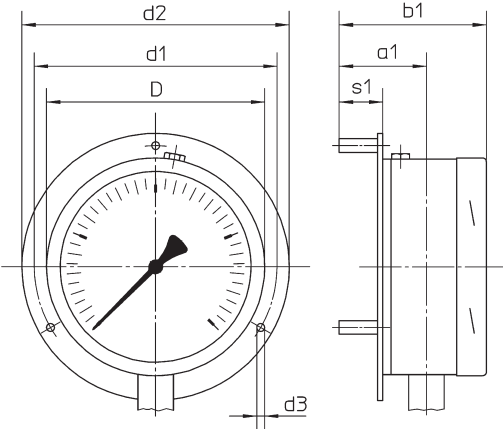
NCS 100



This standard version Mgh for RSCh 160 includes a gauge holder bracket aluminum black, distance 60 mm (2.36"), model no. Z-067001.

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

Bottom connection,
Front flange for panel mounting,
code letters: **Fr**



Version **Rh** includes 3 separate mounting spacers.

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

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

| NCS | a | a1 | b | b1 | D | d1 | d2 | d3 | d4 | d5 | d6 | d7 | d8 | h ±1 | o | s | s1 | s2 | t | t1 | u | u1 | SW |
|-----------|------------|------------|------------|-------------|-------------|-------------|-------------|------------|----|-----------|------------|---------------|-------------|------------|-------------|------------|------------|----------|------------|-----------|------------|-----------|-----------|
| 100 4" | 27 1.06 | 52 2.05 | 60 2.36 | 90 3.54 | 101 3.98 | 116 4.57 | 132 5.2 | 4.8 .19 | M4 | 2.5 .1 | 4.3 .17 | M16x1.5 HP | — | 71 2.8 | — | 1 .04 | 26 1.02 | 7 .28 | 9.5 .37 | 11 .43 | — | — | 22 .87 |
| 160 6" | 42 1.66 | 72 2.85 | 84 3.31 | 114 4.49 | 161 6.34 | 178 7.1 | 196 7.72 | 5.8 .23 | M5 | — | — | 26 1.02 | 139 5.47 | 63 2.48 | 1.5 0.06 | 32 1.26 | 8 .31 | — | — | — | 65 2.56 | 56 2.2 | — |

Weight: RSCh 160 approx. 2.00 kg (**4.40 lb**)
RSChG 160 approx. 3.10 kg (**6.83 lb**)

RSCh 100 approx. 0.65 kg (**1.43 lb**)
RSChG 100 approx. 1.00 kg (**2.20 lb**)