

Test Gauges Bourdon Tube Type

Solid Front and Blow-out Back

Case and Bayonet Ring Stainless Steel

Standard (RFSch) or Liquid Filled (RFSchG)



NCS 160 (6")

Accuracy Class 0.6
EN 837-1

Application

Testing of pressure gauges; pressure measuring instruments with high accuracy (laboratories, material testing machines and others) in environments where dense, chemical resistant cases (e.g. outdoor installation, wet operations, aggressive atmosphere) and high safety standards are required; measurement ranges up to 0-25 bar (400 psi) for gaseous media, dial inscription "G", 0-40 bar (600 psi) and above for liquid media, dial inscription "F".

Nominal Case Size (NCS)

160 mm (6")

Accuracy

Class 0.6 according to EN 837-1

Pressure Ranges (EN 837-1)

Version -1* = 0-0.6 ... 0- 600 bar or 0-10 psi ... 0-10,000 psi

Version -3* = 0-0.6 ... 0-1,600 bar or 0-10 psi ... 0-30,000 psi

Model RFSchG 0-2.5 bar resp. 0-30 psi and above for all versions also vacuum and compound ranges (*see below)

Pressure Limitations

Steady load: full scale value

Dynamic load: 90% of full scale value

Overload: temporary 130% of full scale value

Protection Type (EN 60529 / IEC 529)

IP 54 dry version / IP 65 filled version

Further information on advantages, specifications, temperature resistance, metrological features and pressure ranges of test gauges can be found in **model overview 2000**.

Standard Configuration

Process Connection

½" BSP (standard)

Wetted Parts

Ordering Code -1: Connection = brass

Bourdon tube:

≤ 40 bar = bronze, c-form,
(≤ 600 psi) soft soldered60 bar = copper/beryllium, c-form,
(≥ 800 psi) silver brazed≥ 100 bar = 316 stainless steel (1.4571),
(≥ 1,500 psi) helical, silver brazedOrdering Code -3: Connection = 316 stainless steel (1.4571)

Bourdon tube:

≤ 40 bar = 316 stainless steel (1.4571),
(≤ 600 psi) c-form, argon arc welded≥ 60 bar = 316 stainless steel (1.4571),
(≥ 800 psi) helical, argon arc welded≥ 1000 bar = NiFe alloy, helical,
(≥ 15,000 psi) argon arc welded

Movement

Brass/German silver, low friction

Dial

Aluminum alloy, black figures, white background

Pointer

Knife edge pointer aluminum alloy black

Case and Bayonet Ring

304 stainless steel (1.4301)

Case Filling

only for model RFSchG 160 only: Glycerine

Window

Laminated safety glass lens 6 mm (.24"),
marked with "SAFETY GLASS"

Safety Features

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

Optional Special Configurations

- Test gauge Grade 3A ASME (accuracy ± 0.25%), parallax-free mirror scale
- Accuracy class 0.25 EN 837-1, with parallax-free mirror scale, upon request
- Parallax-free mirror scale
- Case size 100 (4") upon request
- Process connection ½" NPT, ¼" NPT or M 20 x 1,5, others upon request
- Inlet port restrictor screw brass or stainless steel
- Movement stainless steel with jewel bearing
- Maximum drag indicator, external adjustment, (pressure ranges ≥ 2.5 bar or 30 psi) upon request
- Special scales or dual scales, e.g. bar/psi
- Receiver gauge 0.2-1 bar or 3-15 psi
- Other than vertical installation, e.g. 90° to the right side (right side from viewer's perspective)
- Bleeding port at the tip of the bourdon tube (only unfilled gauges RFSch 160)
- Wetted parts monel (ordering code -6) up to 0-400 bar (6,000 psi)
- Electrical accessories upon request

Ordering Information:

Please specify:

Model code/NCS: **RFSch 160**
RFSchG 160Wetted parts: **-1** or **-3**, compare left side,
resp. **-6** (see above)Case configuration: **Rh, Fr**
(see reverse side) (standard case = bottom connection,
no code letter required)Pressure range: according to EN 837-1, e.g. **0-6 bar**
(compare to model overview 2000)Process connection: ½" **BSP** (= standard) , ½" **NPT**
or others (see above)

Special configurations: (see above)

Examples:

- RFSch 160-1, Fr, 0-6 bar, ½" BSP
- RFSchG 160-3, -1/+9 bar, ½" NPT



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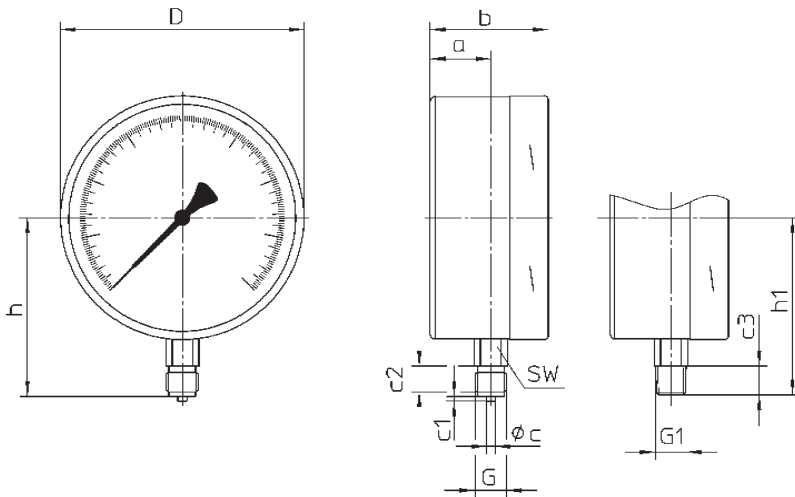
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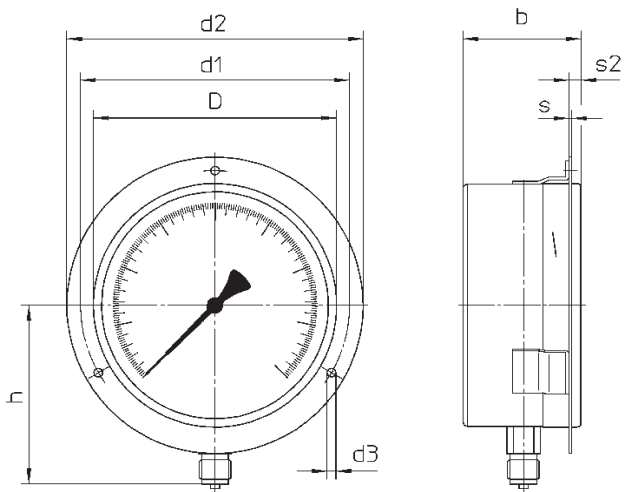
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Case Configurations, Code Letters, Dimensional Data and Weight

Bottom connection,
without code letter

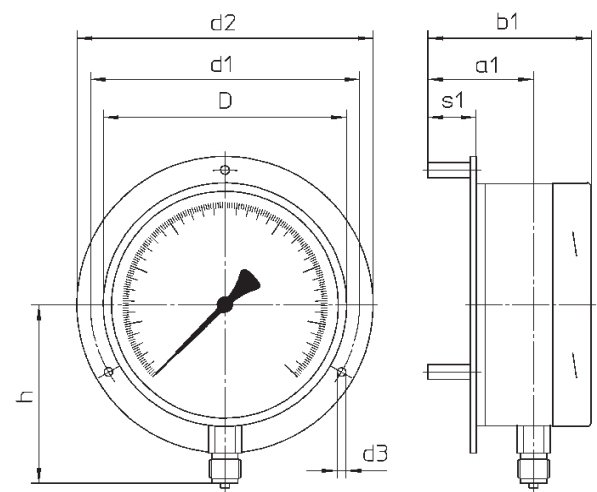


Bottom connection,
front flange,
code letters: **Fr**

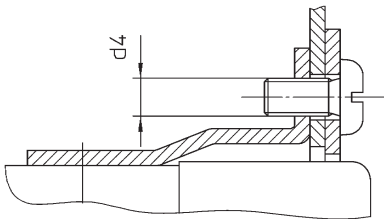


Case configuration Fr: with mounting brackets welded to the case and a separate cover front ring

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



Case configuration "Rh" includes 3 separate mounting spacers



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

NCS	a	a1	b	b1	c	c1	c2	c3	D	d1	d2	d3	d4	G	G1	h ⁺¹	h ^{±1}	s	s1	s2	SW
160 6"	40 1.58	70 2.76	78 3.07	108 4.25	6 .24	3 .12	20 .79	19 .75	161 6.34	178 7.01	196 7.72	5.8 .23	M5	G ½ B ½" BSP	½" NPT	115 4.53	114 4.49	1.5 .06	32 1.26	8 .31	22 .87

Weight (approx.): RFSCCh 1.50 kg / 3.30 lb
RFSCChG 2.950 kg / 6.50 lb

Technical changes, replacement of materials and errors excepted.