

Test Gauges

Bourdon Tube Type

NCS: 160 (6")
250 (10")

Accuracy Class 0.6 EN 837-1

Model

RFÜ

Bezel Ring Case Black

Applications

Testing and comparing process instruments and measuring services where high accuracy is required (indoor use only). Pressure ranges up to 0-25 bar (400 psi) for gaseous media, dial marked with "G", 0-40 bar (600 psi) and up for liquid media (dial marked with "F").

Nominal Case Sizes (NCS)

160 mm (6"), 250 mm (10")

Accuracy

Class 0.6 according to EN 837-1

Pressure Ranges (EN 837-1)

Model -1* = 0-0.6 up to 0- 600 bar or 0-10 psi up to 0-10,000 psi

Model -3* = 0-0.6 up to 0-1,600 bar or 0-10 psi up to 0-30,000 psi

also all standard vacuum and compound ranges

(*see below)

Pressure Limitations

Steady pressure: full scale value

Cyclic pressure: 90% of full scale value

Overpressure: 130% of full scale value (temporary)

Protection Type (EN 60529 / IEC 529)

IP 40

Further information about advantages, specifications, temperature limitations and pressure ranges of test gauges can be found in our **model overview 2000**.

Standard Configuration

Connection

G ½ B (½" BSP), optionally ½" NPT, bottom connection (standard) or lower back connection (code letter r)

Wetted Parts

Ordering Code -1: **Socket:** = brass

Bourdon tube:

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

60 bar = copper/beryllium, C-form,
(≥ 800 psi) silver brazed

≥ 100 bar = 316 stainless steel (1.4571),
(≥ 1,500 psi) helical, silver brazed

Ordering Code -3: **Socket:** = 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

NCS 160 (6"): glass fiber reinforced polyamide 6 B black

NCS 250 (10"): aluminum alloy (resp. certain versions with zero adjustment cast iron case), polyester lacquer grey

Ring

Bezel ring carbon steel black enamelled

Window

Single strength glass, 0-1600 bar (≥ 20,000 psi) laminated safety glass



Optional Special Configurations

- Test gauge Grade 3A ASME ($\pm 0.25\%$), parallax-free mirror scale
- Accuracy class 0.25 EN 837-1, with parallax-free mirror scale, for RFÜ 250 -1; for -3 and NCS 160 upon request
- Zero adjustment by a turnable dial (± 5 scale graduations), knurled adjustment screw front-sided (through the bezel), optionally screw with slit
- Parallax-free mirror scale
- Case size 100 (4") upon request
- Process connection 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
- Bezel ring or front flange chrome plated brass
- Maximum indicating pointer, external adjustment, acrylic glass lens (pressure ranges ≥ 2.5 bar or 30 psi)
- Acrylic glass or laminated safety glass lens
- 1" Blow-out relief on the back of the case
- Special scales, such as dual scales, e.g. bar/psi
- Receiver gauge 0.2-1 bar or 3-15 psi
- Top or side connection or installation not vertical, e.g. 90° to the right side (right side from a viewer's perspective)
- Bleeding port at the tip of the Bourdon tube
- Version -1, pressure ranges ≥ 100 bar with Bourdon tube made of hardened, tempered alloy steel, C-form, screwed together
- Wetted parts monel (ordering code -6) up to range 0-400 bar (6,000 psi)
- Electrical accessories upon request

How to Order:

Please specify:

Model code and case size:

RFÜ 160 or RFÜ 250

Wetted parts:

-1 or -3, compare left side

Case configuration: (see reverse side)

r, Rh, rRh, Fr, rFr, Er or rEr

(Standard case = bottom connection, no code letter required)

Pressure range:

according to EN 837-1, e.g. **0-6 bar**

Process connection:

½" BSP (= standard) or **½" NPT** (others see above)

Special configurations: (see above)

Examples for Ordering Information:

- RFÜ 160-3, rFr, 0-6 bar, ½" BSP
- RFÜ 250-1, -1/+9 bar, ½" NPT



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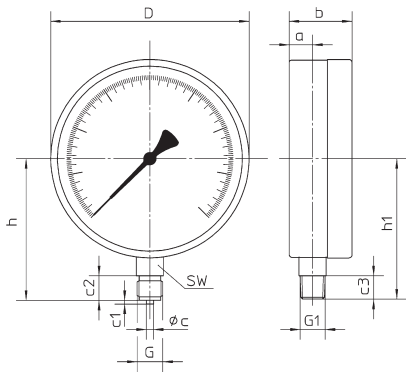
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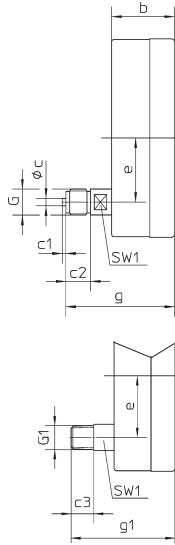
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Case Configurations, Code Letters, Dimensional Data and Weight

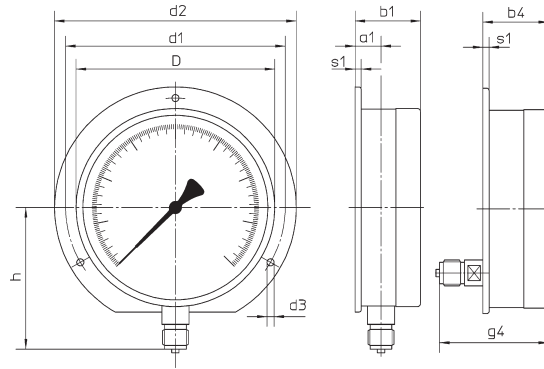
Bottom connection,
without code letter



Lower back connection,
code letter: **r**

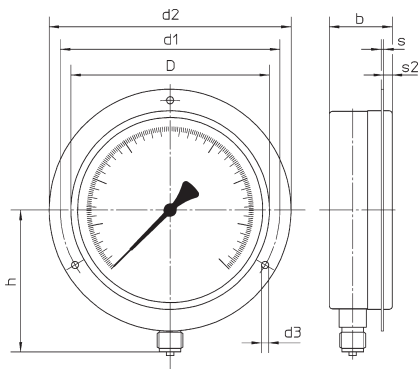


Bottom connection,
rear flange,
code letters: **Rh**

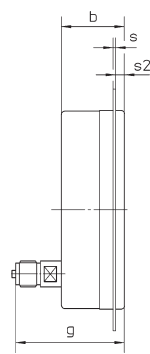


Lower back connection,
rear flange,
code letters: **rRh**

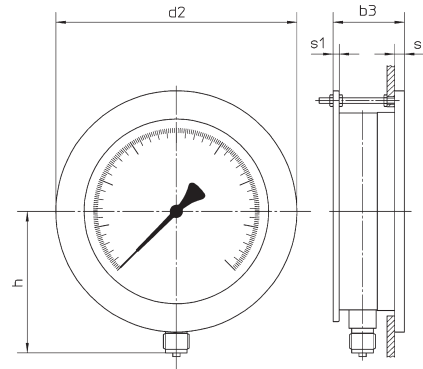
Bottom connection,
front flange,
code letters: **Fr**



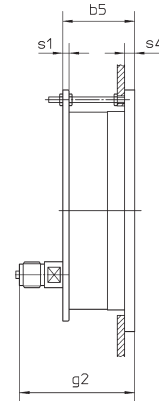
Lower back connection,
front flange,
code letters: **rFr**



NCS 160 (6"):
Bottom connection,
clamp mounting ring,
code letter: **Er**



NCS 160 (6"):
Lower back connection,
clamp mounting ring,
code letters: **rEr**



U-clamp for panel mounting (with lower back connection) available as model RFB 160...rBFr only, refer to data sheet 2101.

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

D = NCS	a	a1	b*	b1*	b3*	b4	b5	c	c1	c2	c3	d1	d2	d3	e	G
160 6"	19 .75	21 .83	51 2.01	53 2.09	58 2.28	53* 2.09	58* 2.28	6 .24	3 .12	20 .79	19 .75	178 7.01	196 7.72	5.8 .23	52 2.05	G 1/2 B 1/2" BSP
250 10"	17 .67	16 .63		50 1.97	56 2.2	55 2.17	61 2.4					270 10.63	285 11.22			

D = NCS	G1	g*	g1	g2	g4	h ±1	h1 ±1	SW	SW1	s	s1	s2	s4	Weight (approx.)
160 6"	1/2" NPT	88 3.46	87 3.43	93* 3.66	88* 3.46	115 4.53	114 4.49	22 .87	17 .67	2 .08	5 .2	7 .28	8 .31	1.60 3.50
250 10"		90 3.54	89 3.50	99 3.90	93 3.66	165 6.50	164 6.46			3 .12		6 .24	10 .39	3.45 7.60

* For instruments with max. indicating pointer add 6 mm (.24 inches) to the dimensions marked with *. Dimensions for gauges with zero adjustment (adjustable dials) upon request.

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