Caisson Gauges with Bourdon Tube

Bayonet Ring Case Stainless Steel (Ch), Nom. Case Size 160

Accuracy Class 1.0

Model **RCaiCh 160**

Application
Measurement of the pressure inside of overpressure chambers, e.g. caissons, living chambers, hyperbaric chambers and decompression chambers at underwater service.

The medium that is let into the chamber (compressed air usually) enters through a hole at the lower side of the case into the pressure gauge. The pressure, by effecting the Bourdon tube from outside, causes a movement of the measuring element to the inside direction, which gives a proportional measure for the pressure. The pointer movement transfers the movement of the Bourdon tube into a pointer turn in clockwise direction.

Nominal Case Size (NCS)
160 (6")

Accuracy Class (EN 837-1)
1.0 (i.e. less than ± 1.0% of full scale value)

Pressure Ranges (EN 837-1)
0-0.6 bar to 0-16 bar

Pressure Limitations
Steady pressure: full scale value
Cyclic pressure: 90% of full scale value

Temperature Limitations
-40 °C / +60 °C

Temperature Caused Error
The accuracy error caused by media or ambient temperatures differing from +20 °C (+68° F) is significant. In accordance with EN 837-1 it may be up to .4 % f.s. per each 10 °C (18°F).

Protection Type (EN 60529 / IEC 529)
IP 54

Standard Configuration

Pressure Entrance
2 venting holes radial at the bottom of the case

Fixing Device
Stainless steel holding chain radial at the case top (standard); optionally case configurations **Rh, Fr or BFr** (compare page 2)

Bourdon Tube
Bronze, C-form, soft soldered (Bourdon tube carrier: brass)

Movement
Brass/German silver

Dial
Aluminum alloy, black figures, white background

Pointer
Micro adjustable pointer, mechanism aluminum, for zero adjustment at air pressure changes

Case and Ring
Bayonet ring case stainless steel

Window
Single strength glass

Further information about advantages, applications, specifications, temperature limitations and pressure ranges of Bourdon tube pressure gauges, accuracy classes 1.0 and 1.6 according to EN, can be found on general information leaflet 1000.

Special Configurations e.g.

- Pressure scale in mWC or other measuring units; other special scales, scales with fine division (with knife edge pointer)
- Arcylic glass window or laminated safety glass
- ≥ 0-2.5 bar: Maximum indicating pointer, adjustable from outside, with separate adjustment key, acrylic glass window; optionally with fixed adjustment key
- Higher accuracy upon request

How to Order:

Model and NCS:	**RCaiCh 160**
Ordering number for wetted material:	**–1** = Brass/bronze
Code letters for case configuration: (see page 2)	**Rh, Fr, BFr** (standard case with holding chain = without code letter to add)
Pressure range:	0-0.6 bar, 0-1 bar, 0-1.6 bar, 0-2.5 bar, 0-4 bar, 0-6 bar, 0-10 bar or 0-16 bar
Special options:	(see above)
Examples:	• RCaiCh 160-1, 0-1 bar • RCaiCh 160-1, Rh, 0-2.5 bar

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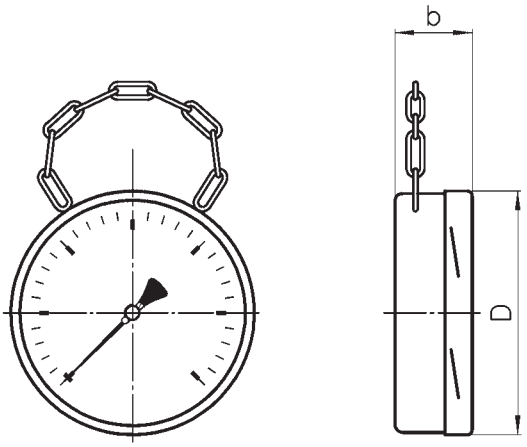
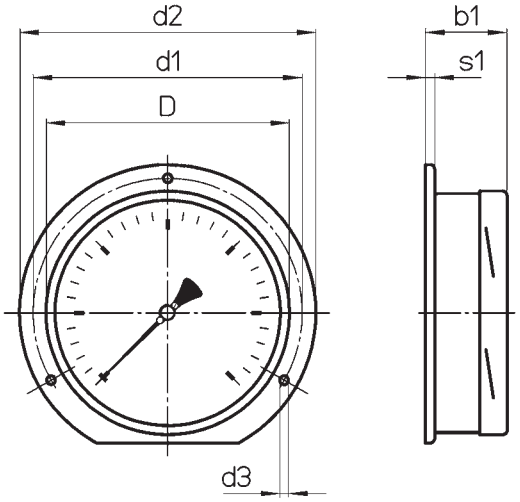
Case Configurations, Code Letters, Dimensions and Weight

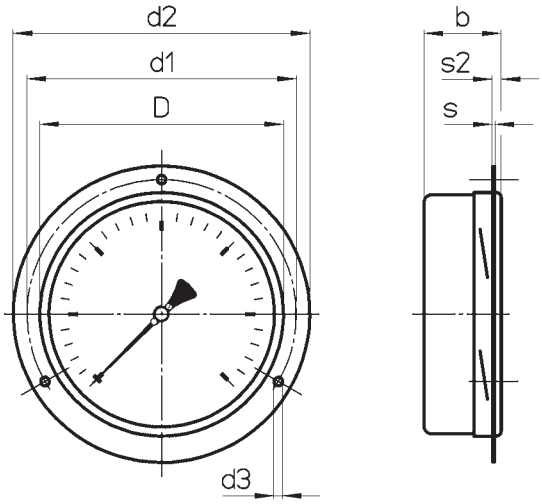
Holding chain
without code letter to add



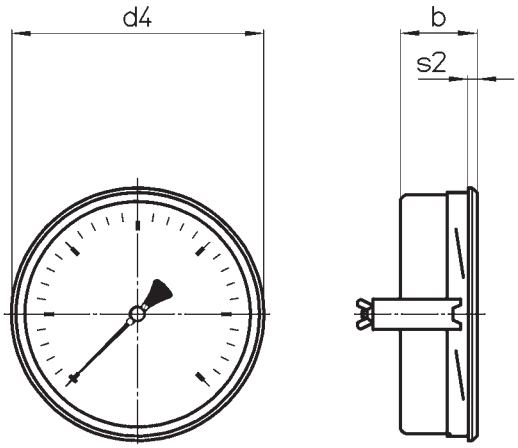
Rear mounting flange,
code letters: **Rh**



Front mounting flange,
code letters: **Fr**



U-clamp for panel mounting,
code letters: **BFr**



Version Fr = Front flange with longholes attached to the case and a separate cover front ring

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

Nom. Case Size NCS	b	b1	D	d1	d2	d3	d4	s	s1	s2	Weight (approx.)
160 **6**	51 **2**	54 **2.13**	161 **6.34**	178 **7**	196 **7.72**	5.8 **.23**	167 **6.57**	2 **.08**	6 **.24**	6 **.24**	0.90 **1.98**

Recommended panel hole: Case configuration **Fr**: Ø 164 mm $^{+1\ mm}$ (6.46")
Case configuration **BFr**: Ø 162 mm $^{+1mm}$ (6.38")

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