

Bourdon Tube Safety Pressure Gauge

With indirect limit switch contact assembly (types E and I)
Safety category S3 according to DIN EN 837-1



RSCh 63

This data sheet contains information on the maximum possible number of contacts, on electrical connections, options and ordering information concerning the Bourdon tube pressure gauge models RSCh 63 with limit switch contact assemblies with 1 or 2 electronic or inductive contacts, as well as dimensional drawings with the position of the electrical connections.

Data sheet 1610 contains all details concerning the available versions of model RSCh without limit switches. These details as well as the required ordering information apply also to the version with limit switches, unless otherwise stated below. A version with case filling is not available.

Model overview 9.1000 contains general and detailed definitions, applications and operating principles for the respective limit switch types. It also provides detailed information on the selection, switching functions and minimum spans, on operating conditions, explosion protection, options and others.

Standard Versions

Available Limit Switch Contact Assemblies

Indirect (contact-free)
- Electronic contact **E**
- Inductive contact **I**

Maximum Possible Number of Contacts

Up to 2 x E
Up to 2 x I

Degree of Protection (DIN EN 60 529 / IEC 529)
IP54

Blow-out Device

Blow-out back; when pressure increases in the case, the entire case back separates, allowing full relief

Nominal Case Size

63 mm (2 1/2")

Window

Polycarbonate

Safety Category According to DIN EN 837-1

S3, safety pressure gauge with break-proof solid front and blow-out back

proved: pressure ranges up to 1000 bar (15,000 psi) (type – 3)
up to 600 bar (10,000 psi) (type – 1)

marking , see also sectional drawing on page 2

Adjusting Mechanism Limit Setting Pointer

All instruments are equipped with an adjusting lock in the window. With the removable key, the limit setting pointer can be externally set to the value of the desired switch point.

Electrical Connection

On the lower right side of the case

limit switch with 1 contact:

1 m connection cable, 2-core, cable entry with rubber bushing and strain relief¹⁾

limit switch with 2 contacts:

1 m connection cable, 4-core, screwed cable gland M12x1.5²⁾

For marking an intrinsically safe circuit, limit switches with inductive contact are supplied with blue cable.



with inductive contact



with electronic contact

Options

- Adjusting lock with non-removable key
- Window laminated glass without adjusting lock, adjustment after removal of the bayonet ring
- Switching distance fixing for 2 contacts upon request
- Electronic contacts: PNP switching output as 2-wire connection
- Inductive contacts: safety version SN or S1N
- Connection cable longer than 1 m upon request
- Plug connector according to DIN EN 175 301-803 construction types A and C, on the left side at 9 o'clock (dimensional drawings upon request), see also page 2
- Circular plug connector, see also page 2
- Other position of the electrical connection upon request

Ordering Information

When installing limit switches, the order text of the basic device (see data sheet 1610) is supplemented by

Code letter	E	electronic contact
	I	inductive contact
Code number for the switching function (clockwise direction of action)	1	making contact
	2	breaking contact
	11	1 st and 2 nd making contact
	12	1 st making contact / 2 nd breaking contact
	21	1 st breaking contact / 2 nd making contact
	22	1 st and 2 nd breaking contact

Example: RSCh 63 – 3, 0 – 10 bar, G 1/4 B, 12

Please Note

For an optimal function of the devices with limit switch, please specify in your order text:

- correct specification of the switching function
- switching pressures
- switching ranges, which are beyond the adjustment ranges defined by us
- if a counterclockwise switching direction is required

¹⁾ ATEX/IECEX: plug connector DIN EN 175301-803 construction type C with blue cable entry

²⁾ ATEX/IECEX: cable entry and connection cable blue or plug connector DIN EN 175301-803 construction type C with blue cable entry

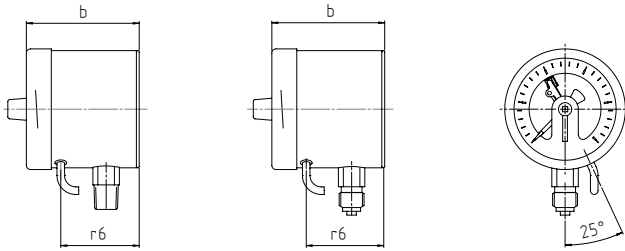
Case Configurations, Code Letters, Dimensional Data and Weights, Options

Compared to the basic models, there are deviations in the front-to-back sizes, see table.
Please refer to data sheet 1610 for the other dimensional data.

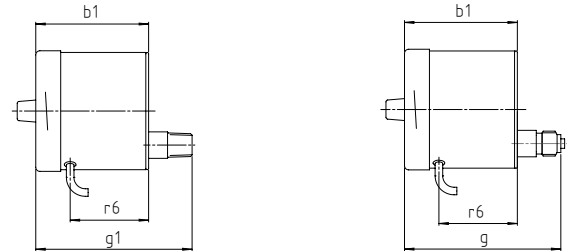
Bottom Connection | Lower Back Connection

without mounting device

without code letters

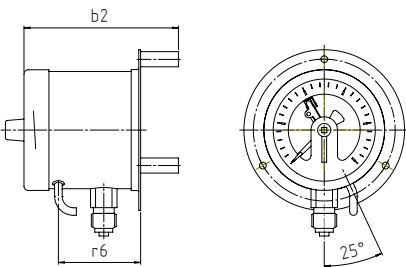


code letter: r



with back flange for surface mounting

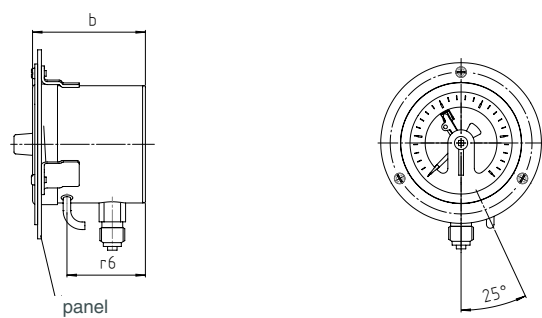
code letters: **Rh**



Version Rh including 3 separate mounting spacers.

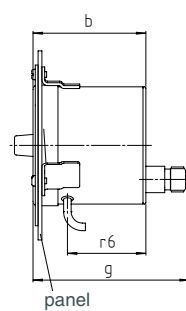
with front flange for panel mounting

code letters: **Fr**



Versions Fr and rFr are supplied with a removable front flange and 3 mounting brackets welded to the case.

code letters: **rFr**



Dimensional Data (mm/inch) and Weights (kg/lb)

NCS	b / b1	b2	g ^{±1} / g1 ^{±1}	r6	approx. weight ¹⁾
63 (2½") limit switch with 1 contact	60 / 2.36	80 / 3.15	82 / 3.23	35 / 1.38	0.30 / 0.66
63 (2½") limit switch with 2 contacts	80 / 3.15	100 / 3.94	102 / 4.02	45 / 1.77	0.30 / 0.66

Options

Plug connector DIN EN 17 5301-803

- IP65, 3-pin + PE and protective contact
- Available for max. 1 x E/I or 2 x E for option PNP switching output as 2-wire connection

These plug connectors are mounted lateral at 9 o'clock

Construction type A



Construction type C



Circular plug connector

- IP67, 4-pin
- Available for max. 2 x E/I
- With 2 m die cast cable upon request

The circular plug connectors have roughly the same position of connection as the cable entries, see above.

Angular cable box



Straight cable box upon request



¹⁾ the data are based on the version with bottom connection and limit switches with 2 contacts