

Combi Gauges for Rail Cars

According to DIN 38030:2022-10

With one measuring unit

Rg...Fz
RChg...Fz

Application

Pressure gauges	NCS 60	Model	Rg 60 – 1 Fz rmBFr
	NCS 80	Model	RChg 80 – 1 Fz rmBFr
	NCS 100	Model	RChg 100 – 1 Fz rmBFr

are applied in rail cars, especially for air brake systems and comply with the standard DIN 38030:2022-10.

The instruments are provided with u-clamps for panel mounting and with direct and indirect lighting as combi gauges.

Standard Versions

Accuracy

Class 1.6	NCS 60
Class 1.0	NCS 80, 100

Position of Installation

70° – 90° (position of adjustment 80°)

Case

NCS 60	galvanised steel
NCS 80, 100	stainless steel 304 (1.4301)

with crimped-on ring, aluminum, black anodised

Temperature Limitation

Storage temperature	–40 °C to +70 °C (–40 °F to +158 °F)
Ambient temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Medium temperature	max. +60 °C (+140 °F)

Degree of Protection (DIN EN 60529 / IEC 60529)

RChg	IP54 in front of the panel
Rg	IP31

Blow-out Device

Blow-out plug in the back of the case

Lighting

Direct	1 light bulb BA9s 24 V / 2 W and
Indirect	via light slits in the case

Nominal Case Sizes

60, 80, 100 mm (2.36, 3, 4")

Wetted Parts

Connection	brass
Bourdon tube	bronze, soft soldered, c-form

Case Configuration

Position of the connection	centre back connection (rm)
Mounting device	u-clamp for panel mounting (BFr)

Pressure Ranges

0 – 6, 0 – 10 and 0 – 12 bar

Process Connection

NCS 60	M 12x1.5 with chuck cone for cutting ring L6 according to DIN EN ISO 8434-1
NCS 80, 100	M 16x1.5 with chuck cone for cutting ring L10 according to DIN EN ISO 8434-1

Including restrictor screw in the pressure inlet port, orifice Ø 0.8 mm (0.03")

Window

Reflex-reduced laminated safety glass



Movement

Brass / German silver

Dial

Aluminum black, scale white, stop pin at 0 bar (zero stop)

Pointer

Aluminum, colour yellow (RAL 1016)

Safety Category According to DIN EN 837-1

S1 pressure gauges with blow-out device

Options

- Instruments without combi lighting, i.e. only direct lighting, only indirect lighting or unlit
- Other pressure ranges, e.g. 0 – 16 bar
- Other than 70° – 90° installation
- Process connection with cutting ring and union nut
- Restrictor screw brass, orifice Ø 1.0 mm (0.04"), in the pressure inlet port
- Other pointer colours, e.g. luminous bright red (RAL 3026) or white (RAL 9010)
- Dial inscription (ZA) as required, colours matching the pointer
- Coloured marks matching the pointer
- LED lighting BA9s, 18 – 32 V, white or green

Special Versions Upon Request

- Other process connections
- LED lighting BA9s for operating voltages of more than 32 V up to max. 130 V

Ordering Information

Please specify in your order:

Basic model	Rg 60 – 1 Fz rmBFr RChg 80 – 1 Fz rmBFr RChg 100 – 1 Fz rmBFr
Pressure range	0 – 6 bar, 0 – 10 bar, 0 – 12 bar
Process connection	L6 (NCS 60) L10 (NCS 80, 100)
Specifics	see above

Example	RChg 80 – 1 Fz rmBFr, 0 – 12 bar, L10, ZA: "brake cylinder" white
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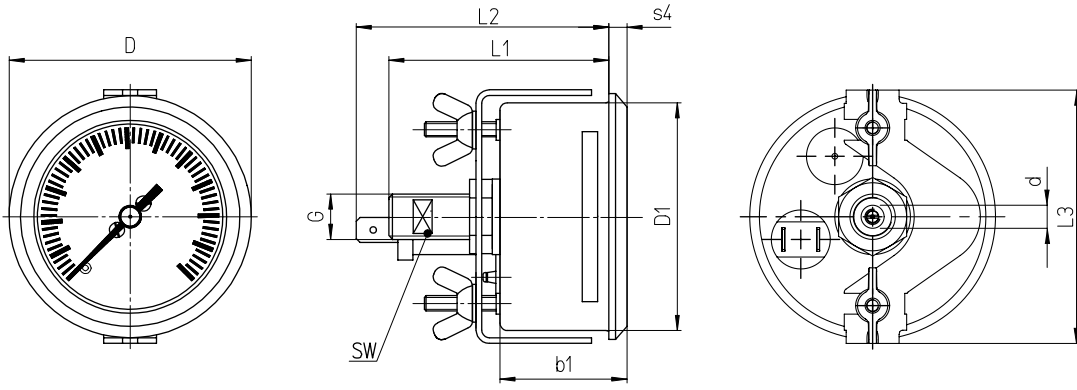
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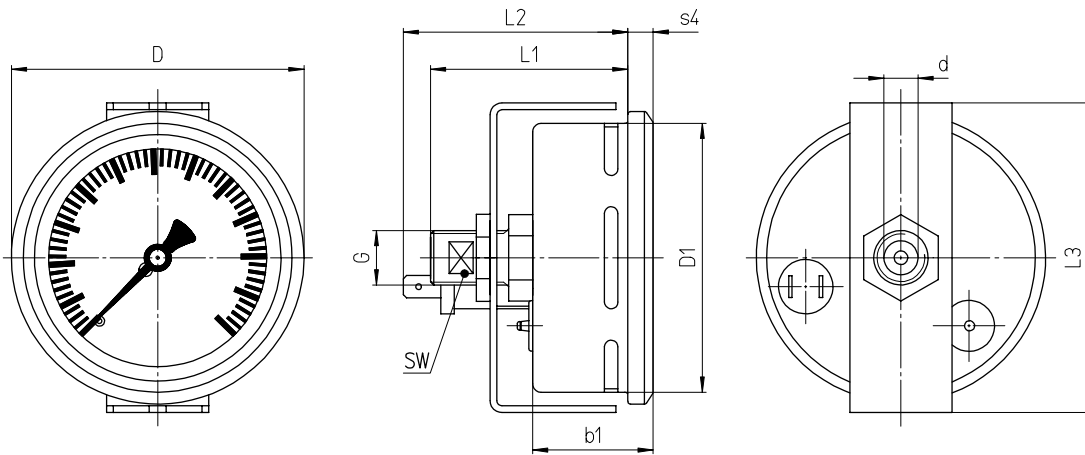
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Case Configuration, Dimensional Data and Weight

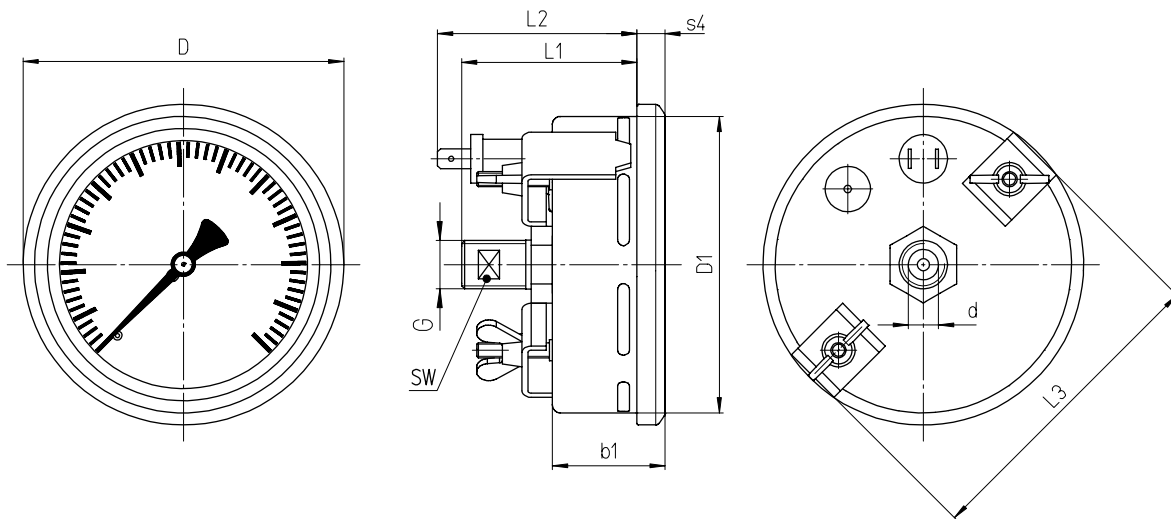
Rg 60 – 1 Fz rmBFr



RChg 80 – 1 Fz rmBFr



RChg 100 – 1 Fz rmBFr



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

NCS	b1	D	D1	process connection DIN EN ISO 8434-1 d ^{B11 1)}		L1	L2	L3	s4	SW	recommended panel cut out Ø	approx. weight
60	33	65	59	L6	M 12x1.5	59	67	67	5	8	61 ±0.5	0.20
2.36	1.3	2.56	2.32			2.32	2.64	2.64	0.2	0.31	2.4 ±0.02	0.44
80	35.5	86	79	L10	M 16x1.5	58	66	91	7.5	13	81 ±0.5	0.35
3	1.4	3.39	3.11			2.28	2.6	3.58	0.3	0.51	3.19 ±0.02	0.77
100	37	106	99	L10	M 16x1.5	57	65	104	10	0.51	102 ±1	0.39
4	1.46	4.17	3.9			2.24	2.56	4.09	0.39	4.02 ±0.04	0.86	

¹⁾ Tolerance class according to ISO 286-2