

Combi Gauges for Rail Cars

According to DIN 38 030:2008

With two Measuring Units

Models **DRg...Fz**
DRChg...Fz

Application

Pressure gauges **NCS 60** Model **DRg 60-1 Fz rmBFr**,
NCS 80 Model **DRChg 80-1 Fz rmBFr**,
NSC 100 Model **DRChg 100-1 Fz rmBFr**,

are used for the measurement of two different pressures and are applied for rail cars, especially for pneumatic brake systems. The instruments are provided with u-clamps for panel mounting and they combine direct and indirect lighting.

Construction

The pressure gauges are provided with two independently working bourdon tube measuring systems. Each system has a separate pressure connection. A movement with separate pointer shafts transfers the pressure caused motion of the bourdon tubes onto the particular pointer.

Standard Version according to DIN 38 030:2008

Accuracy

Class 1.6: NCS 60 separate for each measuring system
Class 1.0: NCS 80,100 separate for each measuring system

Position of Installation

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

Case

NCS 60 (2.36") steel, galvanised
NCS 80, 100 (3", 4") 1.4301 (304 stainless steel)
with crimped-on ring, aluminum, black anodised

Case Protection Type (EN 60529 / IEC 529)

IP 54 in front of the panel

Blow-out Device

Blow-out plug no. 19 in the back of the case

Lighting

Directly 1 x BA9s 24 VDC / 2 W and
indirectly by lighting apertures in the case

Nominal Case Sizes (NCS)

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

Wetted Parts

Connections: brass
Bourdon tubes: bronze, soft soldered, c-form

Case Configuration

Position of the connection: centre back connection (rm),
parallel one above the other
Mounting device: u-clamp for panel mounting (BFr)

Pressure Ranges

0-6, 0-10 and 0-12 bar

Process Connection

NCS 60: 2 x M 12 x 1.5 with chuck cone for cutting ring
L 6 according to DIN EN ISO 8434-1
NCS 80, 100: 2 x M 16 x 1.5 with chuck cone for cutting ring
L 10 according to DIN EN ISO 8434-1

Including restrictor screw in each pressure inlet port,
orifice Ø 0.8 mm (0.03").
Each process connection is marked with a coloured spot, matching
the colour of the pointer.

Window

Reflex-reduced laminated safety glass

Movement

Brass / German silver



Dial

Aluminum black, white scale, with zero stop (stop pin)

Pointers

2 x aluminum, 1 pointer yellow (RAL 1016), 1 pointer red (RAL 3026)

Safety Category according to EN 837-1

S1 pressure gauges with blow-out device

Options and others

- Instrument without combination of lighting, meaning either direct or indirect lighting
- Other pressure ranges, e.g. 0-16 bar
- Other than 70° - 90° installation
- Process connection with cutting ring and union nut
- Other process connections upon request
- Restrictor screw brass, orifice Ø 1.0 mm (0.04"), in the inlet port
- Other colours for pointer, e.g. white (RAL 9010)
- Dial inscription (ZA), according to your demand in terms of colour matching the pointer
- Coloured marks matching the pointers
- LED lighting for operating voltages of more than 32 V DC up to max. 130 V for NCS 80 and 100
- BA9 LED 24-32 V AC/DC
- Direct lighting with BA7s (24 VDC /3W) upon request

Ordering Information:

Model: **DRg 60-1 Fz rmBFr**
DRChg 80-1 Fz rmBFr
DRChg 100-1 Fz rmBFr

Pressure range: **0-6 bar, 0-10 bar, 0-12 bar**

Process connections: **L6 (NCS 60)**
L10 (NCS 80, 100)

Colour of pointer: front pointer: **red or yellow**
rear pointer: **red or yellow**

Specifics: e.g. dial inscriptions (**ZA**),
other position of installation etc.
(see above)

Example:

- DRChg 80-1 Fz rmBFr, 0-12 bar, L 10, front pointer red, rear pointer yellow



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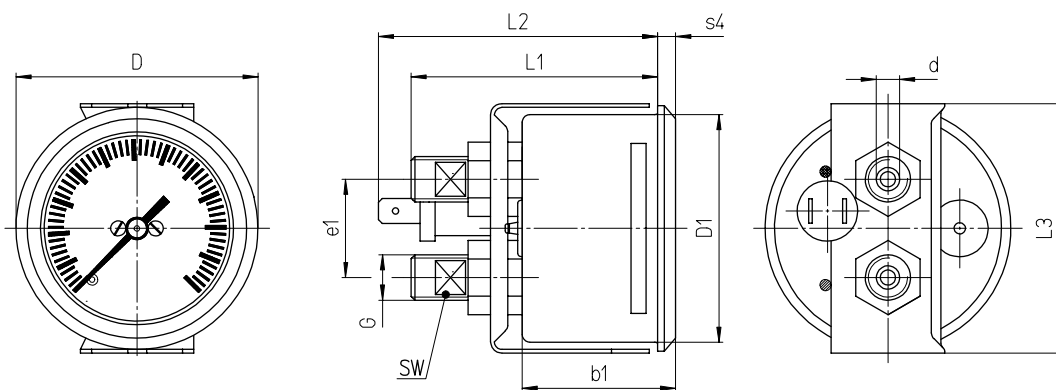
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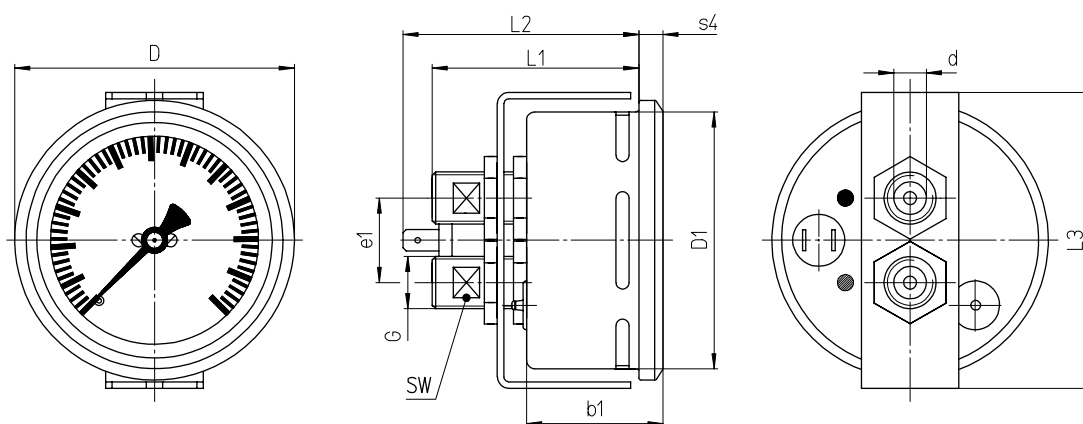
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Case Configuration, Dimensions and Weight

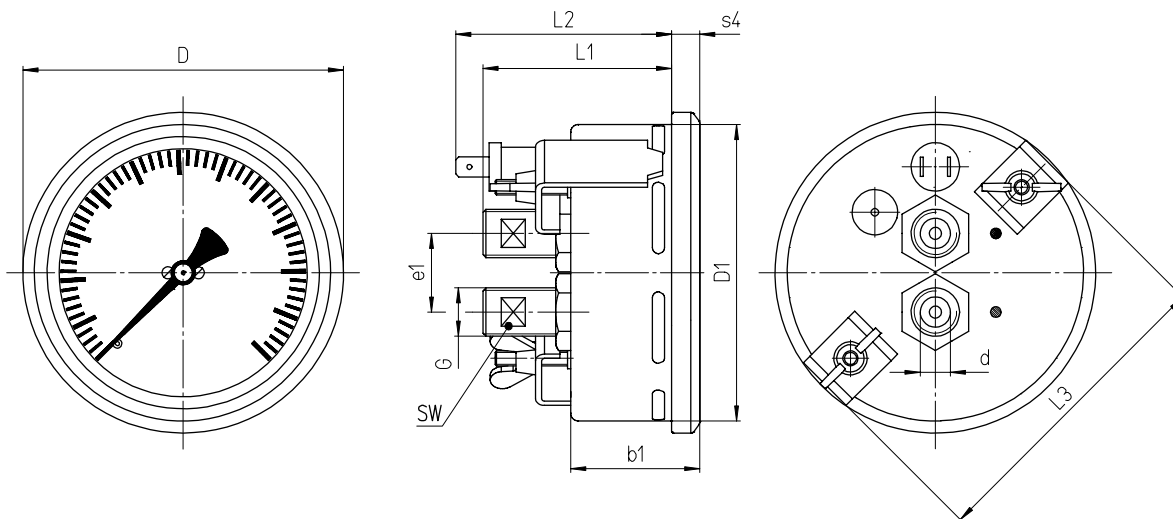
DRg 60-1 Fz rmBFr



DRChg 80-1 Fz rmBFr



DRChg 100-1 Fz rmBFr



Dimensional data (mm / inches) and weights (kg / lb)

NCS	b1	D	D1	Process connections EN ISO 8434-1		e1	L1	L2	L3	s4	SW	recommended panel cut out Ø	Weight (approx.)
				d ^{B11 1)}	G								
60	40	65	59	L6	M 12 x 1.5	26	65	74	67	5	8	61 ± 0.5	0.29
2.36	1.57	2.56	3.32	.24			2.56	2.91	2.64	.2	.31	2.4 ± 0.02	.44
80	41.5	86	79	L10	M 16 x 1.5	1.02	63	72.5	91	7.5	13	81 ± 0.5	0.49
3	1.63	3.39	3.11	.39			2.48	2.85	3.58	.3	.51	3.19 ± 0.02	1.08
100	43	106	99				62	71	104	10		102 ± 1	0.55
4	1.69	4.17	3.89				2.44	2.8	4.09	.39		4.02 ± 0.04	1.21

¹⁾ Tolerance class according to ISO 286-2

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