

Bourdon tube pressure gauges with electrical output signal standard version, plug connector

Nominal size ND 40

Connection position bottom back, eccentric



Model: P1155

Description

The gauges ND 40 can be used in all applications where particular importance is attached to measuring accuracy, reproducibility and long-term stability. They can be used with liquid or gaseous media which are not highly viscous and which do not attack copper alloys or crystallize.

They are a logically consistent development of the proven contact pressure gauges. In addition to the visual display, they provide an output signal for processing in programmable controllers or intelligent measuring systems. By virtue of their compact design, they can replace suitable applications in which simple pressure sensors are used.

A wide variety of threaded as well as capillary-type connections guarantee flexible mounting.

Special features

- o Non contact-sensor (wear-free)
- o Manufactured to EN 837-1
- o Different output signals
- o Display over 270-degree angle
- o Case plastic, black with snap-fit cams for panel mounting

Measuring ranges


0 ... 1.6 to 0 ... 400 bar

Applications

For monitoring water pressure changes, in heating (wall baths, floor furnaces), in building services, apparatus, air conditioning, general industrial applications

Models: P1155

Technical data

Models	P1155	Optionen
Nominal size	40	
Design		
Accuracy class	2.5 nach EN 837-1	
Ranges	0 ... 1.6 to 0 ... 400 bar	
Application	Constant load: 3/4 x of full scale value Alternating load: 2/3 x of full scale value Short-time: full scale value	
Case	Plastic, black (PA) with snap-fit cams	
Window	Plastic, clear (PC)	
Dial	Plastic, white and scale, black	
Pointer	Plastic, black	
Movement	Cu-alloy	
Measuring element	Cu-alloy, C-type	
Pressure connection	Plastic (PA), from 16 bar Cu-alloy	Cu-alloy
- Position	Back eccentric for capillary, SW 14 from 16 bar centric	
Temperatures		
- Medium	Tmax. +90°C	
- Ambient	Tmin. -20°C ... Tmax. +60°C	
Temperature drift	When temperature of the measuring system deviates from reference temperature (+20 °C): max. ±0.4 %/10 K of the span.	
Protection	IP40 acc. to EN 60529 / IEC 529	
Elektrical Data		
Supply voltage	5 VDC / 12 ... 32 VDC	
Output signal	See description: Electronics	
EMV	Acc. to test standards EN 61000-4-6 / EN 61000-4-3	
Load	See description: output signal and allowed load	
Electrical output	Cable output: (see table P.3)	

Electronics

Output signal (275° indication angle)

0.5 ... 2.5 V @ 5 V DC

0.5 ... 3.5 V @ 5 V DC

0.5 ... 4.5 V @ 5 V DC

0.5 ... 2.5 V, $V_S = 12 \dots 32$ V DC

0.5 ... 3.5 V, $V_S = 12 \dots 32$ V DC

0.5 ... 4.5 V, $V_S = 12 \dots 32$ V DC

4 ... 20 mA, 2-wire, $V_S = 12 \dots 32$ V DC

Output signal and allowed load

Output voltage (3-wire):

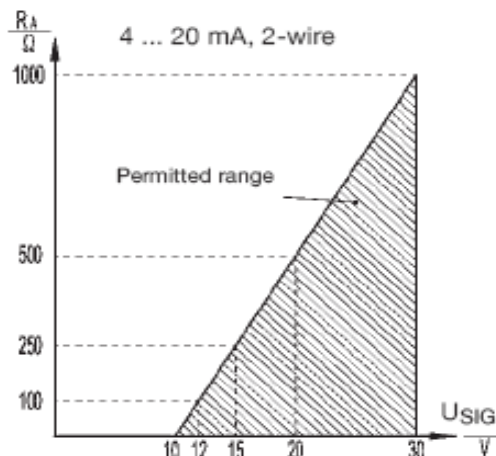
$R_A > 5$ kOhm

Output current (2-wire)

4 ... 20 mA

$R_A \leq (U_{SIG} - 10 \text{ V}) / 0.02 \text{ A}$ with

R_A in Ohm and U_{SIG} in VDC



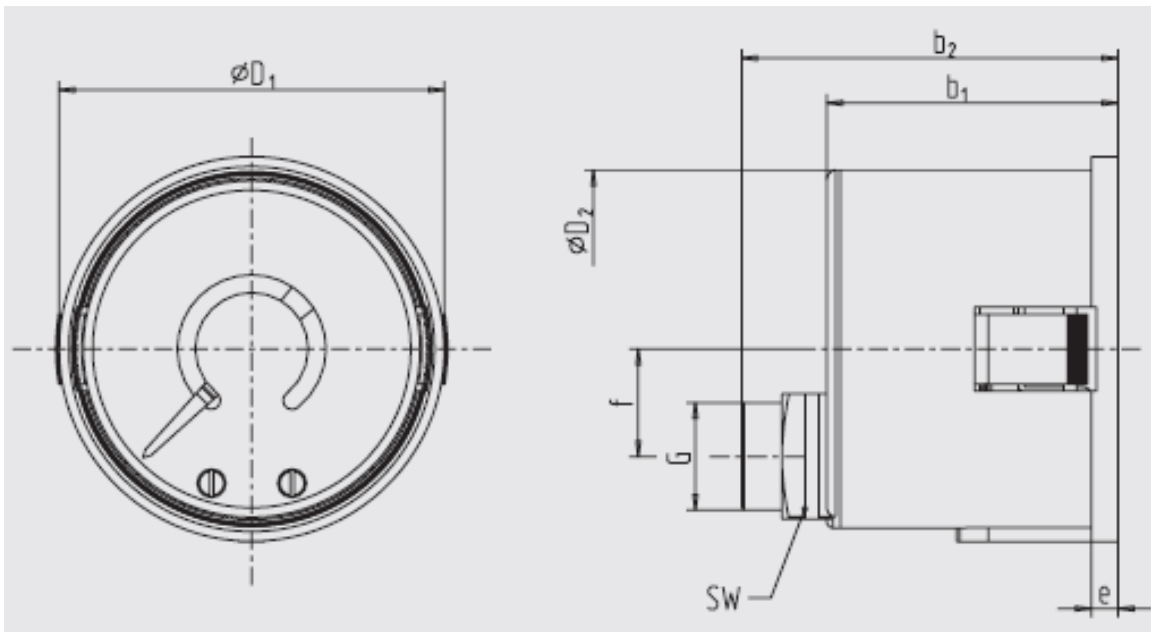
Electrical connections

Cable output

colour	2-wire	3-wire
black	GND	GND
brown	$U_B +$	$U_B +$
orange	---	U_{SIG+}

Dimension

Connection back eccentric for capillary ¹⁾



Models	Dimensions in mm									Weight in kg
	ND	b_1	b_2	D_1	D_2	G	e	f	SW	
P1155	40	32.5	42	43	40	²⁾	3	12	14	0.12

1) from 16 bar connector position back centric

2) for capillary

Modifications reserved