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

Nominal size ND 40 and ND 50

Connection position bottom back, eccentric

Model: P1156

Model: P1157

Description

The gauges ND 40 and ND 50 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 as well as stainless stell

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
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Technical data

Models	P1156	P1157	Options
Nominal size	**40**	**50**	
Design			
Accuracy class	2.5 to EN 837-1		
Ranges	0 ... 1.6 to 0 ... 400 bar negative or positive / negative and positive gauge pressure		
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)		Stainless Steel
Window	Plastic, clear (PC)		
Dial	Plastic, white and scale, black		
Pointer	Plastic, black		
Movement	Cu-alloy		
Measuring element	Cu-alloy, C-type		
Pressure connection - Position - Thread	Brass Back eccentric for capillary, SW 14 G 1/8 B		Cu-alloy Other threads on request
Temperatures - Medium - Ambient	 Tmax. +90°C 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 2m; cable output: (see table P.3)		Other cable length on request

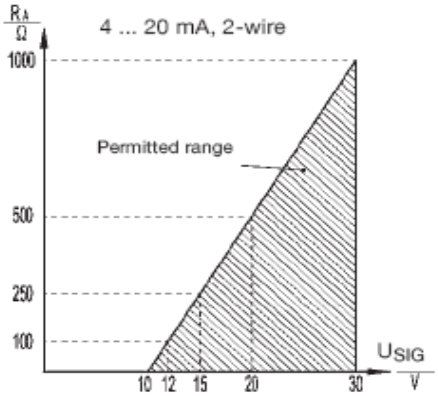
Electronics

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 ... 32 V DC
0.5 ... 3.5 V, V_S = 12 ... 32 V DC
0.5 ... 4.5 V, V_S = 12 ... 32 V DC
4 ... 20 mA, 2-wire, V_S = 12 ... 32 V DC

Output signal and allowed load

Output voltage (3-wire):
R_A > 5 kOhm

Output current (2-wire)
4 … 20 mA
$R_A \leq (U_{SIG} - 10\ V) / 0.02\ A$ with
R_A in Ohm and U_{SIG} in VDC



Electrical connections

Cable output

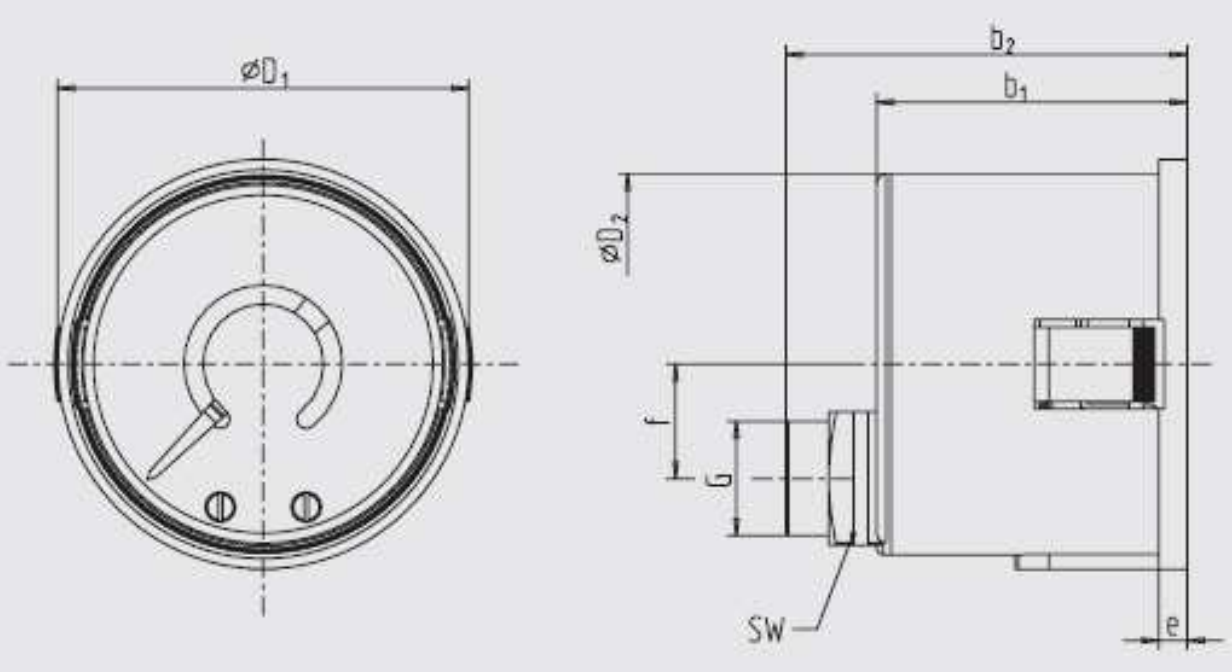
colour	2-wire	3-wire
black	GND	GND
brown	U_B +	U_B +
orange	---	U_{SIG}+

CE mark

This product is exclusively intended for installation in instruments that comply with the requirements of the EC directives. The CE proof is provided by the customer.

Dimension

Connection back eccentric for capillary



Models	Dimensions in mm							Weight in kg
	ND	b_1	b_2	D_1	G	h	SW	
P1156	40	34.1	48.5	40	G 1/8 B	36	14	0.1
P1157	50	34.5	53.6	49	G 1/8 B	45	14	0.2

Modifications reserved