DIGITAL PRESSURE INDICATOR
type DPI - sanitary

1: Output signal
2: Power input
3: 0 V
4: Alarm 1
5: Alarm 2

Connection sign view for BAT version with rear cover removed and battery connected.

Loosen screws to change display orientation.

ø80

160

45°

NV32

M30×1,5

28

5.5

11.5

ø23.5

Ø24e8

Ø19-0.1

ø18×3 mm O-ring sealing and backring

DESCRIPTION

This instrument satisfies the sanitary demands in most applications. The sensing element is a diaphragm machined from titanium featuring flush mounting, traceable material certificate and no oil filling. Titanium grade 5 is characterized by supreme corrosion data, very high 0.1 % proof stress (85 kp/mm²), very little hysteresis and excellent long-term stability. A strain gauge mounted on the diaphragm backside converts the pressure generated deformation into a change in resistance. The electronics, placed in the circular stainless steel housing, supplies the gauge, amplifies the output and generates a standard analog output signal in parallel with the displayed pressure. Any display orientation can be chosen. The indicator is terminated through a M12 connector or cable gland. The DPI is operated and configured with the 3 buttons on the front side. Change of range, units and alarm levels, temperature readout and peak value indication are some of the possibilities.

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SPECIFICATIONS

Nominal pressure ranges	10, 50, 100, 200, 500 or 1000 bar gauge
Range adjustment interval	25 % to 125 % of nominal pressure range
Pressure limit	200 % without damage
Materials	
- **in contact with media**	Titanium grade 5
- **electronic housing**	Stainless steel 1.4404
- **nut and tube spacer**	Stainless steel 1.4057
Supply	
- **BAT battery**	9 V type 6LR61, max. 0,5 mA (ON)/ 0,07 mA (OFF)
- **V external supply**	5 to 31.2 Vdc, max 30 mA, configuration dependant
Display	5 numerical digits, 3 digits for units and 6 indicators
Analog output signals (only with external supply)	Configureable
- **A**	4-20 mA, 2-wire (No alarm outputs)
- **B**	0-20 mA, 3-wire
- **BA**	4-20 mA, 3-wire
- **C**	0-5 V, 3-wire
- **E**	0-10 V, 3-wire
Alarm outputs (only with external supply)	2 pcs. open collector, normally ON
Alarm limits	110 % of pressure range. Alarm 2 adjustable
Non-linearity incl. hysteresis	< 0.5 % of FSO from best fit straight line
ZERO button	Zeroes display and output when activated.
ON button	ON/OFF toggle button (V-version with 5 s OFF delay)
MODE button	Selects display reading/measurement
Response time	20 ms to 13 s (configurable)
Communication port	RS232D (future option)
Temperature ranges	
- **media short term**	-25 °C to +150 °C
- **media working**	-25 °C to +100 °C
- **electronics**	-25 °C to +70 °C
Temperature measurement	-25 °C to +130 °C, ±3 °C accuracy
Environmental conditions	
- **vibration**	According to IEC 68-2-6: 10-150 Hz, 0.35 mm/5g
- **shock**	According to IEC 68-2-27: 200 g half sine, 1 ms
- **electromagnetic immunity/emission**	According to EN 61326
Connection	
- **connector**	5-pole M12 stainless steel
- **cable gland**	PG9 for shielded cable, outer diameter ø4-8 mm
Weight	400 g
Protection class	IP67

INSTALLATION

Place the unit with a 18*3 mm O-ring sealing and back-ring made of a materials compatible with the pressure media. Tighten and secure the nut with a locking adhesive if exposed to vibrations or harsh dynamic pressures. Switch ON when battery powered, or connect the electronics following the connection sign placed along the battery holder, and switch ON. Change the configuration or ZERO the output if necessary.

ORDERING INFORMATION

DPI x x x

                 supply: BAT/V
                 analog output signals for "Certificate of Accuracy": A/B/BA/C/E
                 pressure range in bar