

# Digital Pressure Gauge for Gauge, Absolute and Differential Pressure





Measuring range: -1...1600 bar

Accuracy class: 0.5

Material: stainless steel and ceramic

- Analogue outputs: 0/4 - 20 mA, 0 - 10 V
- Interface RS 232
- Option: version with up to4 potential free alarm contacts
- Adjustment locking by password
- High overrange protection



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KOBOLD Messring GmbH Nordring 22-24 D-65719 Hoffneim/Ts. ☎+49(0)6192 299-0 Fax +49(0)6192 23398 E-Mail: info.de@kobold.com

Internet: www.kobold.com

Model: MAN-SF MAN-BF





### **Description**

The intelligent KOBOLD digital pressure gauges are intended for indicating, monitoring and remote transmission of pressure-dependant processes in machines and production plants. Indication occurs by means of an easily visible 4-digit green LED-display of 14 mm. The version with relays can carry up to 4 alarm contacts to be set with the keypad. (backlit LCD-display). Other interfaces are available as options.

# Measuring principle

The pressure is detected by a piezo-resistive sensor and transformed by the electronics into an analogue signal which is proportional to the pressure. Parallel to the indication is also an analogue output for remote transmission of the values measured.

## **Application**

- Food and beverage industries (with diaphragm mounting)
- Engineering
- Machine and apparatus construction
- Pneumatics, hydraulics
- Filter monitoring

#### **Technical Data**

Measuring range: -1...0 bar to 0...1600 bar

(0...2000 bar on request)

Accuracy class: 0.5

Linearity

incl. hysteresis:  $\leq \pm 0.5\%$  F.S. Repeatability:  $\leq \pm 0.1\%$  F.S.

Temperature

Medium: -20...+85°CAmbient: -20...+60°C

Coefficient (offset): ≤ 0.3 % / 10 K, F.S.
 Coefficient (span): ≤ 0.3 % / 10 K, F.S.

Response time: 0.3 s (adjustable from 0.1 s)

Nominal size: 100 mm

Overload limit: 2 times

Housing: stainless steel 1.4301

Process connection: G ½ male, bottom stainless steel 1.4571

(> 400 bar

sensing cell st. st. 1.4542)

other on request (G 1/4, 1/2 NPT, 1/4 NPT)

Front plate: polyester foil on AL carrier

Relay (option): changeover

Adjustable parameter: limit value, hysteresis,

Delay (0, 10...99,99 s)

Switch capacity: 250  $V_{AC}$ , 3 A, 50 VA 220  $V_{DC}$ , 3 A, 60 W

Output signal: 4-20 mA, 0-20 mA or 0-10 V

Max. load:  $\leq 500 \Omega \text{ (mA-output)}$  $\geq 500 \Omega \text{ (V}_{DC} \text{-output)}$ 

Protection: IP 65

Electrical connection: terminal box

(Phoenix model Mini-Kombicon

3.81 or 5.08 mm)

Supply:  $18-30 V_{DC}$ 

## **Options:**

Relay (max. 4)

Frontflush diaphragm Interface RS 232 Peak memory Absolute pressure Differential pressure

Front flange Scalable indication Scalable output

Mounting of diaphragm seals



# Order Details (Example: MAN-SF26 AD A4 K)

Model							
MAN-SF26	MAN-SF20	MAN-SF28V	MAN-BF26	MAN-BF20	MAN-BF28V		
Standard version	with external sensor and wall mount bracket	with external sensor, Panel mount	Differential pressure sensor with external sensor	Differential pressure sensor with 2 external sensors wall mount bracket	Differential pressure sensor with 2 external sensors		

Indicating range* others on request	Analogue output	Contact output	Options Please specify in writing
AD = -1 to 0 bar A1 = -1 to +15 bar A2 = -1 to +3 bar A3 = -1 to +5 bar A4 = -1 to +9 bar A5 = -1 to +15 bar B1 = 0 to 0.6 bar B2 = 0 to 1 bar B3 = 0 to 1.6 bar B4 = 0 to 2.5 bar B5 = 0 to 4 bar B6 = 0 to 6 bar B7 = 0 to 10 bar B8 = 0 to 16 bar B9 = 0 to 25 bar B0 = 0 to 40 bar C1 = 0 to 60 bar C2 = 0 to 100 bar C3 = 0 to 100 bar C4 = 0 to 250 bar C5 = 0 to 400 bar C6 = 0 to 600 bar C7 = 0 to 1000 bar C6 = 0 to 600 bar D7 = 0 to 1000 bar D8 = 0 to 1600 bar	A4 = 4-20 mA A0 = 0-20 mA AV = 0-10 Volt	K = no limit contactsG = 2 limit contactsM = 4 limit contacts	none = without option F = front flush diaphragm G ½ (standard version)  front flush diaphragm G 1 (with external sensor from to 1.6 bar)  front flush diaphragm G ½ (with external sensor from 2.5 bar) R = interface RS 232 S = peak memory A = absolute pressure (max. 25 bar) U = 5 times overpressure proof (MAN-SF) L = longer sensor cable B = scalable display O = scalable output D = diaphragm seal mounting

<sup>\*</sup> For MAN-BF... the indicating range is equal to the differential pressure measuring range. The statistic pressure for MAN-BF... must always be specified in writing.

## Accessories

Power supply for the Top hat rail mounting

Model: MZB-NSF 030

Input: 230 V<sub>AC</sub>

Output:  $24 V_{DC} / 500 \text{ mA},$ 

short-circuit proof

Screw terminals



# **Dimensions**

