



P30-2 Pressure transmitter

- Absolute- and gauge pressure
- High repeatability and long-term stability
- High overload resistance
- Ranges up to 40 bar (600psi)
- Customer specific ranges
- Flush mounted or manometer connection
- Housing and connection made from 316L

sensor line

GENERAL

P30-2 transducers have been designed for precise measurement of gauge pressure in simple industrial applications. The offered measurement ranges are starting with 0...400 mbar. The highest measurement range for all versions is 0...40 bar. Beside the good selection of standard ranges, the transducers can be offered with customized ranges i.e. -200...200mbar or -1...40bar. P30-2 transducers are made from AISI 316L stainless steel for improved robustness. The permissible overload is four times the nominal span.

DESCRIPTION

The P30-2 pressure transmitter is available with a process connection with internal diaphragm or in a flush-mount design. The process pressure deflects the metal process isolating diaphragm of the sensor and a fill fluid transfers the pressure to a Wheatstone bridge (semiconductor technology). The pressure-dependent change in the bridge output voltage is measured and evaluated. The transducer can be delivered with a 0...10V (3-wire) or 4...20mA (2-wire) output.

TECHNICAL DATA

Input

Measurement ranges

Range	Accuracy
0..250 mbar (3,6 psi)	0,5%
....	0,5%
0..40 bar (600 psi)	0,5%

Overload limit

4 x measurement range (static overload)

Overload effect

≤ 0,1 % of range

Wetted parts

Diaphragm:

1.4435 (X2CrNiMo18-14-3), AISI 316L

Connection:

1.4404 (X2CrNiMo17-12-2), AISI 316L

Process media

Gases, vapours and liquids

Process temperatures

-25...+85°C (-13...+185 °F)

Process connections

Internal diaphragm

- ISO 228 G ¼" A, EN 837 thread
- ISO 228 G ½" A, EN 837 thread
- ISO 228 G ½" A thread, with 11,4 mm (0,45 in) hole
- DIN 13 M20 x 1,5, EN 837 thread

Flush mounting

- ISO 228 G ½" A, DIN3852 thread
- ISO 228 G ½" A thread with additional O-Ring

Output (0...10V Variant)

Output signal

0..10V, 3-wire

Characteristic

linear

Max Load

Load ≥ 5kΩ

Electrical Connection 4...20mA Output

Einstellzeit

Zeitkonstante 10ms

Output (4...20mA Variant)

Output signal

4...20mA, 2-wire

Signal range

3,8...20,5mA

Signal on Error

> 21mA according to NAMUR NE43

Characteristic

linear

Max burden

depending on power supply:

$$R = \frac{\text{Supply Voltage} - 6,5V}{22mA}$$

Settling time

Time constant 10ms

Power supply

Supply voltage

12...30V DC
10...30V DC (4...20mA Variant)

Current consumption

≤ 12mA
≤ 26mA (4...20mA Variant)

Residual ripple

Max ±5% for specified accuracy

Fuse protection

Micro fuse 500mA (slow)

Environmental Conditions

Ambient temperature
-40...+70°C (-40...+158 °F)

Storage temperature
-40...+85°C (-40...+185 °F)

Climatic category
Class 3K5
relative Humidity 4...95%
(non condensing)

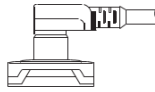
General

Housing
1.4404 (X2CrNiMo17-12-2), AISI 316L

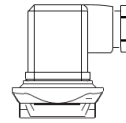
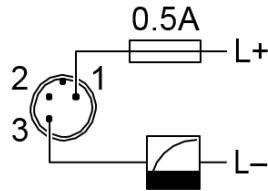
Protection
IP65, NEMA Type 4X

Mounting orientation
Not critical

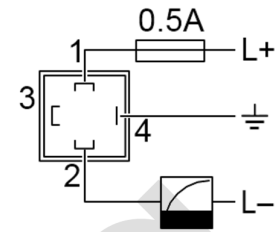
Weight
approx. 0,25kg



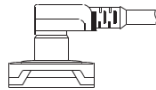
M12 Connector



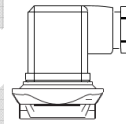
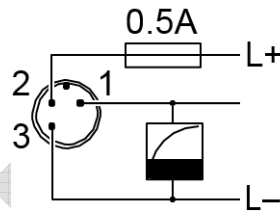
Valve connector



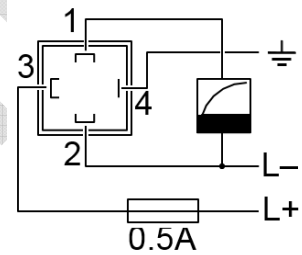
Electrical Connection 0...10V Output



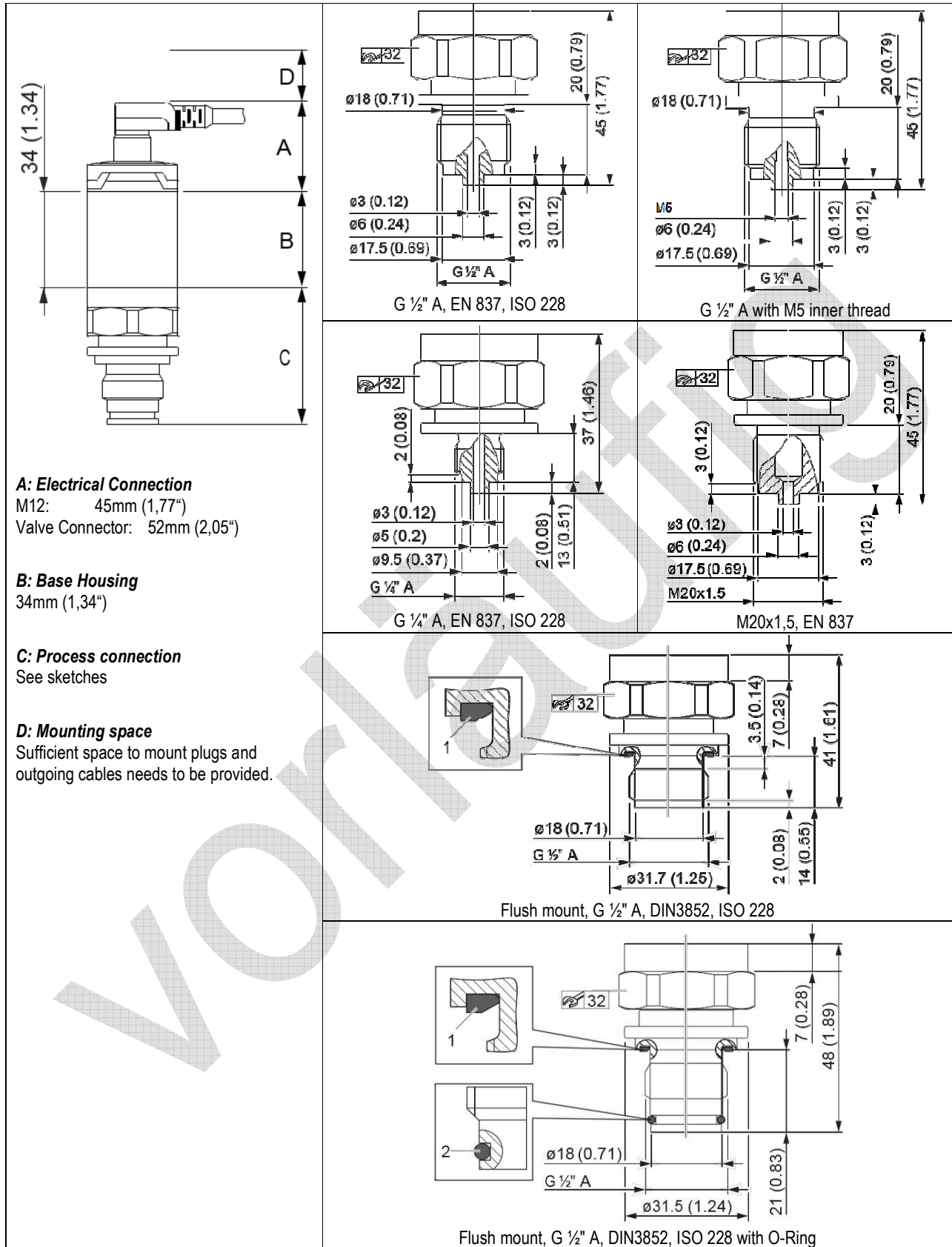
M12 Connector



Valve connector



Dimensions of available versions



Process connection

Internal diaphragm

- 1 G 1/2" A, EN 837, ISO 228
- 2 G 1/4" A, EN 837, ISO 228
- 3 M20 x 1,5, EN 837, DIN 13
- 4 G 1/2" A, with M5 inner thread
- 5 G 1/2" A, with mechanical damping

Flush mounting

- 7 G 1/2" A, DIN3852, ISO 228
- 8 G 1/2" A with O-Ring

Electrical connection

- 1 M12 Connector
- 2 Valve connector ISO4400 M16
- 3 Valve connector ISO4400 NPT1/2

Output

- 1 4...20mA (2-wire)
- 2 0...10V (3-wire)

P30-2 x x - x 0 xx x - 00x

Ranges

- 03 0..400 mbar
- 04 0..600 mbar
- 05 0..1,0 bar
- 06 0..1,6 bar
- 07 0..2,5 bar
- 08 0..4 bar
- 09 0..6 bar
- 10 0..10 bar
- 11 0..16 bar
- 12 0..25 bar
- 13 0..40 bar
- 99 Customized
(starting at -1bar)

Test and Calibration

- 0 Manufacturing test report
- 1 Calibration certificate

Output filter

- 0 none
- 1 100ms
- 2 200ms
- 3 300ms
- 4 400ms
- 5 500ms



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