



## Pressure Sensor PV-25H Series



High Resolution



Narrow total error band



Excellent long-term Stability

### Description

The PV-25H series is a high performance configurable solution for pressure measurement. The micromachined silicon technology and analogue circuitry enables excellent accuracy and stability. On board temperature measurement provides real time temperature compensation while high resolution analogue signal path is available with fast response.

#### Pressure Ranges (FRO) - Gauge

100 mbar to 150 bar (any zero based range between)  
Bi-directional from  $\pm 100$  mbar

#### Pressure Ranges (FRO) - Absolute

250 mbar to 150 bar (any zero based range between)

#### Overpressure

200% to 400% depending on pressure range (FRO)

#### Output Signal (3-wire)

0 to 5 V

0 to 10 V

1 to 6 V

#### Load Impedance

$> 5$  kOhm

#### Measurement Performance

Valid for Pressure Ranges  $\geq 1$  bar

#### Accuracy

(includes non-linearity, hysteresis and repeatability)

Standard  $\leq \pm 0.1\%$  FRO

optional  $\leq \pm 0.05\%$  FRO

optional  $\leq \pm 0.02\%$  FRO

#### Total Error Band within Operating Temperature Range

(includes non-linearity, hysteresis, repeatability, zero and span settings, thermal shift on zero and span)

Standard  $\leq 1\%$  FRO

optional  $\leq 0.5\%$  FRO

optional  $\leq 0.25\%$  FRO

#### Stability

$\leq 0.1\%$  FRO per year (typically)

#### Response Time

< 0.5 ms

#### Zero and Span Setting

Digital adjustable, optional

#### Operating Temperature Range

-20°C to +80°C

#### Compensated Temperature Range

-20°C to +80°C

#### Supply Voltage ( $V_s$ )

8 to 32 VDC (for 5 V or 6 V Output Signal)

13 to 32 VDC (for 10 V Output Signal)

#### Current Consumption

$\leq 5$  mA

#### Material of Wetted Parts

1.4404 and 1.4435

#### Electrical Connection

Cable length 1 m (IP67)

Plug EN 175301-803 Form A (IP65)

(DIN 43650) Mating Connector included

Plug M12x1, Mating Connector optional

#### Pressure Connection

G1/4 female

G1/4 male, DIN 3852 T11, seal included

Others on Request

#### Protection Rate

Depending on mating connector

#### Weight

80 g. app.

#### EMC

12 V/m 80 MHz - 2 GHz to DIN EN 61326 (A)

#### Vibration

DIN EN 60068-2-64 Grade 1

### Electrical Connections

| Output | Function     | M12x1 | DIN 43650 | Cable  |
|--------|--------------|-------|-----------|--------|
| Volts  | + $V_s$      | 1     | 1         | Brown  |
|        | + Output     | 4     | 3         | Yellow |
|        | - $V_s$      | 3     | 2         | White  |
|        | Adjustment   |       | n.a.      |        |
|        | Cable Screen |       |           | Black  |

### Dimensions (ca. mm)

| Dimensions  | C    | B (Male)         | B (Female) |
|-------------|------|------------------|------------|
| M12x1       | 9,5  | 51.3             | 61.3       |
| DIN 43650   | 28   | 53.6             | 63.6       |
| Cable       | 11   | 48.5             | 58.5       |
| Dimensions  | A    | D                |            |
| G1/4 male   | 12   | $\varnothing 25$ |            |
| G1/4 female | n.a. | $\varnothing 25$ |            |

