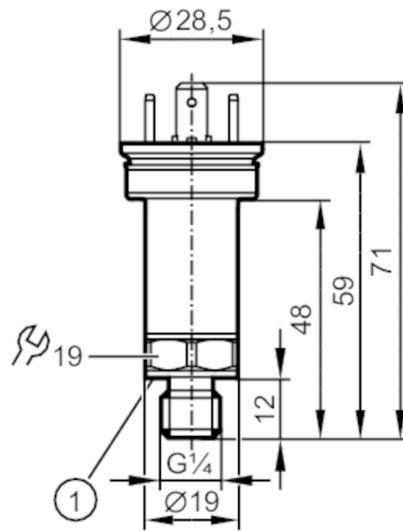


PT5001



Pressure transmitter

PT-250-SEG14-A-ZVG/VE



1 sealing



Product characteristics

| | | | |
|------------------------------|---|--------------|------------|
| Number of inputs and outputs | Number of analog outputs: 1 | | |
| Measuring range | 0...250 bar | 0...3625 psi | 0...25 MPa |
| Process connection | threaded connection G 1/4 external thread (DIN EN ISO 1179-2) | | |

Application

| | | | |
|-------------------------|--|-----------|----------|
| Measuring element | metallic thin film cell | | |
| Application | for mobile applications; for industrial applications | | |
| Media | liquids and gases | | |
| Medium temperature [°C] | -40...125 | | |
| Min. burst pressure | 1200 bar | 17400 psi | 120 MPa |
| Pressure rating | 625 bar | 9060 psi | 62.5 MPa |
| Note on pressure rating | static | | |
| Vacuum resistance | -1000 mbar | -0.1 MPa | |
| Type of pressure | relative pressure | | |

Electrical data

| | | | |
|---------------------------------|-----------------|--|--|
| Operating voltage [V] | 8...36 DC | | |
| Min. insulation resistance [MΩ] | 100; (500 V DC) | | |
| Protection class | III | | |
| Reverse polarity protection | yes | | |
| Power-on delay time [s] | < 0.1 | | |

Inputs / outputs

| | | | |
|------------------------------|-----------------------------|--|--|
| Number of inputs and outputs | Number of analog outputs: 1 | | |
|------------------------------|-----------------------------|--|--|

Outputs

| | | | |
|--------------------------|---------------|--|--|
| Total number of outputs | 1 | | |
| Output signal | analog signal | | |
| Number of analog outputs | 1 | | |

PT5001



Pressure transmitter

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| | | |
|-----------------------|------|--|
| Analog current output | [mA] | 4...20 |
| Max. load | [Ω] | ($U_b - 8\text{ V}$) / 21,5 mA ; @8V= 0 Ω ; @12V max. 200 Ω; @24V max. 750 Ω |
| Short-circuit proof | | yes |
| Overload protection | | yes |

Measuring/setting range

| | | | |
|-----------------|-------------|--------------|------------|
| Measuring range | 0...250 bar | 0...3625 psi | 0...25 MPa |
|-----------------|-------------|--------------|------------|

Accuracy / deviations

| | | |
|------------------------------------|------------------------|---|
| Repeatability | [% of the span] | < ± 0,05; (with temperature fluctuations < 10 K) |
| Characteristics deviation | [% of the span] | < ± 0,5; (incl. drift when overtightened, zero point and span error, non-linearity, hysteresis) |
| Linearity deviation | [% of the span] | < ± 0,1 (BFSL) / < ± 0,2 (LS) |
| Hysteresis deviation | [% of the span] | < ± 0,2 |
| Long-term stability | [% of the span] | < ± 0,1; (per 6 months) |
| Temperature coefficient zero point | [% of the span / 10 K] | < ± 0,1 (0...80 °C); < ± 0,2 (-40...0 °C / 80...125 °C) |
| Temperature coefficient span | [% of the span / 10 K] | < ± 0,1 (0...80 °C); < ± 0,2 (-40...0 °C / 80...125 °C) |

Reaction times

| | | |
|----------------------------------|------|---|
| Step response time analog output | [ms] | 2 |
|----------------------------------|------|---|

Operating conditions

| | | |
|---------------------|------|-----------|
| Ambient temperature | [°C] | -40...100 |
| Storage temperature | [°C] | -40...100 |
| Protection | | IP 67 |

Tests / approvals

| | | |
|------------------------------|---|--|
| EMC | Compliant with ECE R 10, rev. 5 | (E1 compliant) |
| | DIN EN ISO 13766-1 : 2018 | earth-moving and construction machines |
| | DIN EN ISO 14982 : 2009 | agricultural and forestry machines |
| | ISO 11452-2 | 100 V/m |
| | ISO 7637-2 : 2011 pulse 1 | Test severity III. function state C |
| | ISO 7637-2 : 2011 pulse 2b | test severity IV. function state C |
| | DIN EN 61326-1 | |
| Shock resistance | DIN EN 60068-2-27 | 500 g (1 ms) |
| Vibration resistance | DIN EN 60068-2-6 | 20 g (10...2000 Hz) |
| MTTF | [years] | 715 |
| UL approval | UL approval number | J033 |
| | File number UL | E174189 |
| Pressure equipment directive | sound engineering practice; can be used for group 2 fluids; group 1 fluids on request | |

Mechanical data

| | | |
|------------|------|---------------|
| Weight | [g] | 67.5 |
| Housing | | tubular |
| Dimensions | [mm] | Ø 19 / L = 71 |

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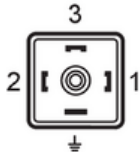
| | |
|-------------------------------|--|
| Material | stainless steel (630/1.4542/17-4 PH); stainless steel (1.4404 / 316L); PPS |
| Materials (wetted parts) | stainless steel (630/1.4542/17-4 PH); stainless steel (1.4305 / 303) |
| Min. pressure cycles | 60 million; (at 1.2 times nominal pressure) |
| Tightening torque [Nm] | 25...35; (recommended tightening torque; Depends on lubrication, seal and pressure rating) |
| Process connection | threaded connection G 1/4 external thread (DIN EN ISO 1179-2) |
| Process connection sealing | FKM (DIN EN ISO 1179-2) |
| Restrictor element integrated | yes |

Remarks

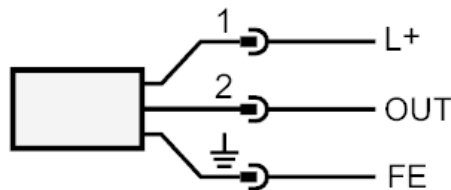
| | |
|---------------|---|
| Remarks | BFSL = Best Fit Straight Line LS = limit value setting |
| Pack quantity | 1 pcs. |

Electrical connection

Connector: 1 x valve plug type A DIN (EN175301-803-A); Contacts: 4



Connection



OUT analog output
FE functional earth

PT5001

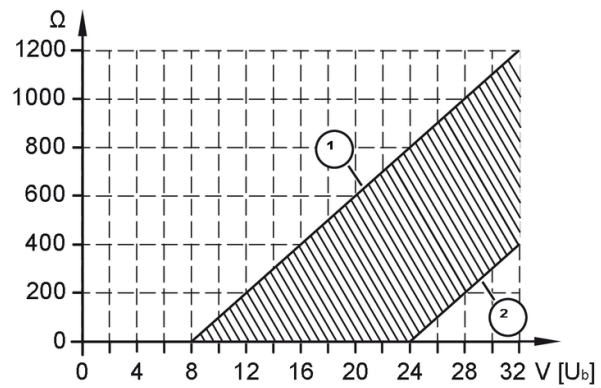


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Diagrams and graphs

Characteristic load curve current output



1: Max. load

2: Min. load