

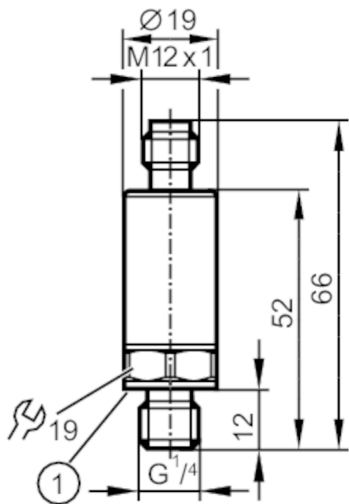
# PT5501

## Pressure transmitter

PT-250-SEG14-A-ZVG/US



When selecting an alternative article and accessories please note that technical data may differ!



1     Sealing



### Product characteristics

|                              |                                                               |              |            |
|------------------------------|---------------------------------------------------------------|--------------|------------|
| Number of inputs and outputs | Number of analogue 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

|                          |                         |           |          |
|--------------------------|-------------------------|-----------|----------|
| Application              | for mobile applications |           |          |
| Media                    | liquids and gases       |           |          |
| Medium temperature [°C]  | -40...125               |           |          |
| Min. bursting pressure   | 1200 bar                | 17400 psi | 120 MPa  |
| Pressure rating          | 625 bar                 | 9060 psi  | 62.5 MPa |
| Note on pressure rating  | static                  |           |          |
| Vacuum resistance [mbar] | -1000                   |           |          |
| Type of pressure         | relative pressure       |           |          |

### Electrical data

|                                 |                 |
|---------------------------------|-----------------|
| Operating voltage [V]           | 8...32 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 analogue outputs: 1 |
|------------------------------|-------------------------------|

### Outputs

|                              |                 |
|------------------------------|-----------------|
| Total number of outputs      | 1               |
| Output signal                | analogue signal |
| Number of analogue outputs   | 1               |
| Analogue current output [mA] | 4...20          |

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|                                    |                        |                                                                                                 |                     |            |
|------------------------------------|------------------------|-------------------------------------------------------------------------------------------------|---------------------|------------|
| Max. load                          | [Ω]                    | (Ub - 8 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]        | < ± 0,8; (incl. drift when overtightened, zero point and span error, non-linearity, hysteresis) |                     |            |
| Linearity deviation                | [% of the span]        | < ± 0,25 (BFSL) / < ± 0,5 (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)                                         |                     |            |
| Response times                     |                        |                                                                                                 |                     |            |
| Step response time analogue output | [ms]                   | 2                                                                                               |                     |            |
| Operating conditions               |                        |                                                                                                 |                     |            |
| Ambient temperature                | [°C]                   | -40...100                                                                                       |                     |            |
| Storage temperature                | [°C]                   | -40...100                                                                                       |                     |            |
| Protection                         |                        | IP 67; IP 69K                                                                                   |                     |            |
| Tests / approvals                  |                        |                                                                                                 |                     |            |
| EMC                                |                        | compliant with UN ECE R10, rev. 5                                                               | (E1 compliant)      |            |
|                                    |                        | ISO 11452-2                                                                                     | 100 V/m             |            |
|                                    |                        | 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]                | 704                                                                                             |                     |            |
| UL approval                        |                        | UL Approval no.                                                                                 | J072                |            |
|                                    |                        | 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]                    | 59                                                                                              |                     |            |
| Materials                          |                        | stainless steel (630/1.4542/17-4 PH); stainless steel (316L/1.4404); PEI                        |                     |            |
| Materials (wetted parts)           |                        | stainless steel (630/1.4542/17-4 PH)                                                            |                     |            |
| 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         |                        | HNBR (DIN EN ISO 1179-2)                                                                        |                     |            |

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|                               |     |
|-------------------------------|-----|
| Restrictor element integrated | yes |
|-------------------------------|-----|

Remarks

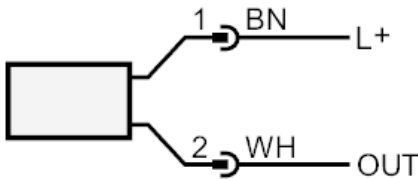
|               |                                                           |
|---------------|-----------------------------------------------------------|
| Remarks       | BFSL = Best Fit Straight Line<br>LS = limit value setting |
| Pack quantity | 1 pcs.                                          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

Electrical connection

Connector: 1 x M12; coding: A; Maximum cable length: 30 m



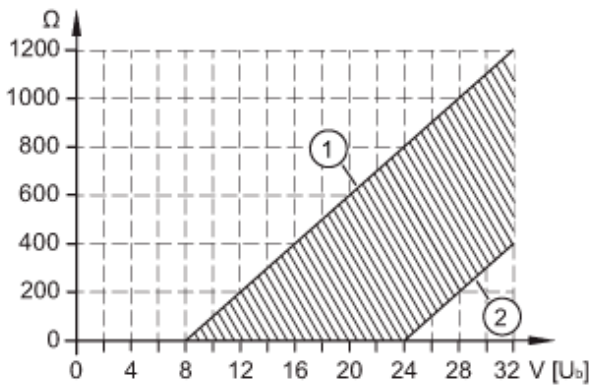
Connection



OUT                    analogue output  
                         colours to DIN EN 60947-5-2  
                         Core colours :  
BN =                    brown  
WH =                    white

Diagrams and graphs

characteristic load curve of current  
output



1:    Max. load  
2:    min. load