

PT5503



Pressure transmitter

PT-025-SEG14-A-ZVG/US



1      Sealing



| Product characteristics         |                                                                   |             |             |
|---------------------------------|-------------------------------------------------------------------|-------------|-------------|
| Number of inputs and outputs    | Number of analogue outputs: 1                                     |             |             |
| Measuring range                 | 0...25 bar                                                        | 0...360 psi | 0...2.5 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          | 600 bar                                                           | 8700 psi    | 60 MPa      |
| Pressure rating                 | 65 bar                                                            | 940 psi     | 6.5 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                                                            |             |             |
| Max. load [Ω]                   | (Ub - 8 V) / 21,5 mA; @8V = 0 Ω; @12V max. 200 Ω; @24V max. 750 Ω |             |             |

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|                                                           |  |                                                                                                 |                     |             |
|-----------------------------------------------------------|--|-------------------------------------------------------------------------------------------------|---------------------|-------------|
| Short-circuit proof                                       |  | yes                                                                                             |                     |             |
| Overload protection                                       |  | yes                                                                                             |                     |             |
| Measuring/setting range                                   |  |                                                                                                 |                     |             |
| Measuring range                                           |  | 0...25 bar                                                                                      | 0...360 psi         | 0...2.5 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); < ± 0,3 (-40...0 °C); < ± 0,2 (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.                                                                                 | J071                |             |
|                                                           |  | 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]                                                |  | 58.5                                                                                            |                     |             |
| 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)                                                                        |                     |             |
| Restrictor element integrated                             |  | yes                                                                                             |                     |             |



Pressure transmitter

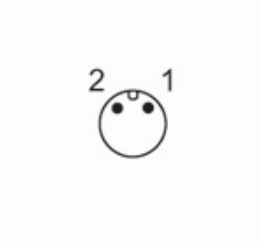
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Remarks

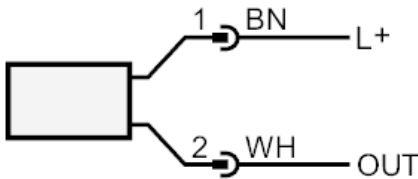
|               |                                                           |
|---------------|-----------------------------------------------------------|
| Remarks       | BFSL = Best Fit Straight Line<br>LS = limit value setting |
| Pack quantity | 1 pcs.                                          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

Electrical connection

Connector: 1 x M12; coding: A



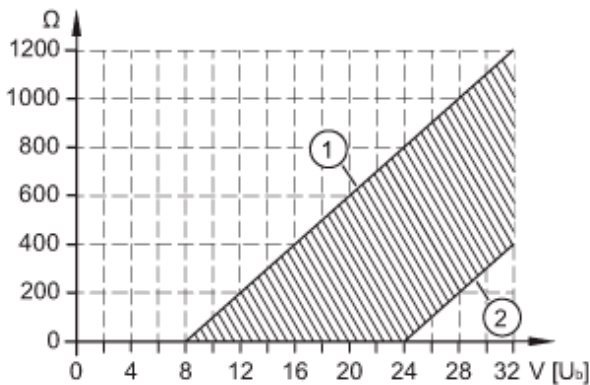
Connection



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