

# PT2402



## Pressure transmitter

PT-100PSEN14-A-ZVG/US/ IW



| Product characteristics                  |       |                                              |
|------------------------------------------|-------|----------------------------------------------|
| Number of inputs and outputs             |       | Number of analogue outputs: 1                |
| Measuring range                          | [psi] | 0...1000                                     |
| Process connection                       |       | threaded connection 1/4" NPT external thread |
| Application                              |       |                                              |
| Application                              |       | for industrial applications                  |
| Media                                    |       | liquids and gases                            |
| Medium temperature                       | [°C]  | -40...90                                     |
| Min. bursting pressure                   | [psi] | 13050                                        |
| Min. bursting pressure                   | [MPa] | 90                                           |
| Pressure rating                          | [psi] | 2500                                         |
| Pressure rating                          | [MPa] | 17                                           |
| Note on pressure rating                  |       | static                                       |
| Vacuum resistance                        | [psi] | -14.5                                        |
| Vacuum resistance                        | [MPa] | -0.1                                         |
| Type of pressure                         |       | relative pressure                            |
| MAWP (for applications according to CRN) | [psi] | 2500                                         |
| Electrical data                          |       |                                              |
| Operating voltage                        | [V]   | 8.5...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 analogue outputs: 1                |



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| Outputs                                                            |                   |                                                                                                 |
|--------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------|
| Total number of outputs                                            |                   | 1                                                                                               |
| Output signal                                                      |                   | analogue signal                                                                                 |
| Number of analogue outputs                                         |                   | 1                                                                                               |
| Analogue current output [mA]                                       |                   | 4...20                                                                                          |
| Max. load [Ω]                                                      |                   | ( $U_b - 8,5 \text{ V}$ ) / 21,5 mA; @8,5V= 0 Ω; @12V max. 160 Ω; @24V max. 720 Ω               |
| Short-circuit proof                                                |                   | yes                                                                                             |
| Overload protection                                                |                   | yes                                                                                             |
| Measuring/setting range                                            |                   |                                                                                                 |
| Measuring range [psi]                                              |                   | 0...1000                                                                                        |
| 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 and span [% of the span / 10 K] |                   | < 0,1 (-25...90 °C) / < 0,2 (-40...-25 °C)                                                      |
| Response times                                                     |                   |                                                                                                 |
| Step response time analogue output [ms]                            |                   | 1                                                                                               |
| Operating conditions                                               |                   |                                                                                                 |
| Ambient temperature [°C]                                           |                   | -40...90                                                                                        |
| Storage temperature [°C]                                           |                   | -40...100                                                                                       |
| Protection                                                         |                   | IP 67; IP 69K                                                                                   |
| Tests / approvals                                                  |                   |                                                                                                 |
| EMC                                                                | DIN EN 61000-6-2  |                                                                                                 |
|                                                                    | DIN EN 61000-6-3  |                                                                                                 |
| Shock resistance                                                   | DIN EN 60068-2-27 | 50 g (11 ms)                                                                                    |
| Vibration resistance                                               | DIN EN 60068-2-6  | 20 g (10...2000 Hz)                                                                             |
| MTTF [years]                                                       |                   | 784                                                                                             |
| Pressure Equipment Directive                                       |                   | Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request           |
| Mechanical data                                                    |                   |                                                                                                 |
| Weight [g]                                                         |                   | 58                                                                                              |
| Housing                                                            |                   | cylindrical                                                                                     |
| Dimensions [mm]                                                    |                   | Ø 18,9 / L = 66,9                                                                               |
| 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]                                             |                   | < 50; (recommended tightening torque; depends on lubrication, seal and pressure rating)         |

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|                               |                                              |
|-------------------------------|----------------------------------------------|
| Process connection            | threaded connection 1/4" NPT external thread |
| Restrictor element integrated | no (can be retrofitted)                      |

Remarks

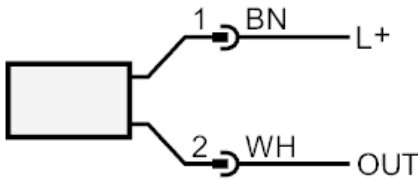
|               |                               |
|---------------|-------------------------------|
| Remarks       | BFSL = Best Fit Straight Line |
|               | LS = limit value setting      |
| Pack quantity | 1 pcs.                        |

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