



Pressure transmitter

PT-040-SEG14-A-ZVG/VE



1     Sealing



Product characteristics

|                              |                                                               |             |           |
|------------------------------|---------------------------------------------------------------|-------------|-----------|
| Number of inputs and outputs | Number of analogue outputs: 1                                 |             |           |
| Measuring range              | 0...40 bar                                                    | 0...580 psi | 0...4 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. bursting pressure   | 800 bar                                              | 11600 psi | 80 MPa |
| Pressure rating          | 100 bar                                              | 1450 psi  | 10 MPa |
| Note on pressure rating  | static                                               |           |        |
| Vacuum resistance [mbar] | -1000                                                |           |        |
| 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 analogue outputs: 1 |
|------------------------------|-------------------------------|

Outputs

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



## Pressure transmitter

PT-040-SEG14-A-ZVG/VE

|                                    |  |                                                                                       |                                      |                                                                                                 |
|------------------------------------|--|---------------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------|
| Analogue current output            |  | 4...20                                                                                |                                      |                                                                                                 |
| Max. load                          |  | (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...40 bar                                                                            | 0...580 psi                          | 0...4 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)                                         |
| Response times                     |  |                                                                                       |                                      |                                                                                                 |
| Step response time analogue 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                                                             | earthworks 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 no.                                                                       | J032                                 |                                                                                                 |
|                                    |  | 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                                                                                              |
| Materials                          |  | stainless steel (630/1.4542/17-4 PH); stainless steel (316L/1.4404); PPS              |                                      |                                                                                                 |
| Materials (wetted parts)           |  | stainless steel (630/1.4542/17-4 PH); stainless steel (303/1.4305)                    |                                      |                                                                                                 |

PT5043



Pressure transmitter

PT-040-SEG14-A-ZVG/VE

|                               |                                                                                            |
|-------------------------------|--------------------------------------------------------------------------------------------|
| 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

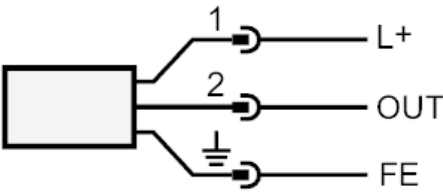
|               |                                                           |
|---------------|-----------------------------------------------------------|
| Remarks       | BFSL = Best Fit Straight Line<br>LS = limit value setting |
| Pack quantity | 1 pcs.                                          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

Electrical connection

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



Connection



|     |                  |
|-----|------------------|
| OUT | analogue output  |
| FE  | functional earth |



## Pressure transmitter

PT-040-SEG14-A-ZVG/VE

### Diagrams and graphs

characteristic load curve of current output



1: Max. load

2: min. load