

# PT701E



## Pressure transmitter

PT-250-SEG14-A-ZVG/DE



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       | -1000 mbar              | -0.1 MPa  |          |
| 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]                | ( $U_b - 8\text{ V}$ ) / 21,5 mA; @8V = 0 Ω; @12V max. 200 Ω; @24V max. 750 Ω |
| Short-circuit proof          | yes                                                                           |

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|                                                              |  |                                                                                                 |                              |
|--------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------|------------------------------|
| 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<br>[% of the span]                 |  | < ± 0,8; (incl. drift when overtightened, zero point and span error, non-linearity, hysteresis) |                              |
| Linearity deviation<br>[% of the span]                       |  | < ± 0,25 (BFSL) / < ± 0,5 (LS)                                                                  |                              |
| Hysteresis deviation<br>[% of the span]                      |  | < ± 0,2                                                                                         |                              |
| Long-term stability<br>[% of the span]                       |  | < ± 0,1; (per 6 months)                                                                         |                              |
| Temperature coefficient zero point<br>[% of the span / 10 K] |  | < ± 0,1 (0...80 °C); < ± 0,2 (-40...0 °C / 80...125 °C)                                         |                              |
| Temperature coefficient span<br>[% 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                                                          |  | noise immunity according to UN ECE R10, rev. 6                                                  |                              |
|                                                              |  | 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]                                            |  | 711                                                                                             |                              |
| Pressure Equipment Directive                                 |  | Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request           |                              |
| Mechanical data                                              |  |                                                                                                 |                              |
| Weight      [g]                                              |  | 62.1                                                                                            |                              |
| Housing                                                      |  | cylindrical                                                                                     |                              |
| Dimensions      [mm]                                         |  | Ø 19 / L = 71.5                                                                                 |                              |
| 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)                                                            |                              |
| 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                                                                                             |                              |

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Pressure transmitter

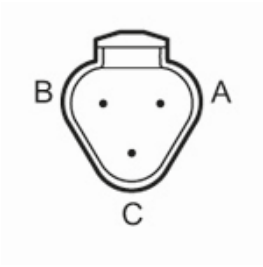
PT-250-SEG14-A-ZVG/DE

Remarks

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

Electrical connection

Connector: 1 x DEUTSCH connector (DT04-3P)



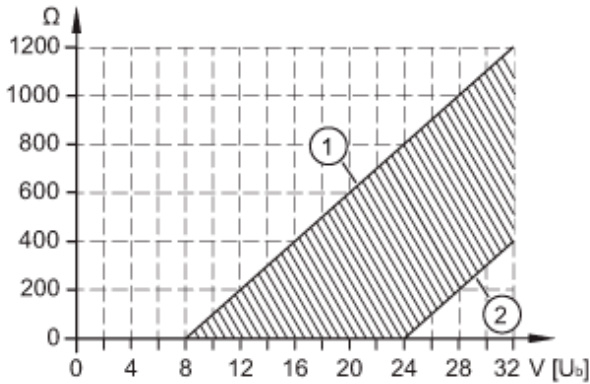
Connection



OUT                      analogue output

Diagrams and graphs

characteristic load curve of current output



- 1: Max. load
- 2: min. load