

# PU1700

## Pressure transmitter

PU-500PSEU96-V-DVG/DE



### Product characteristics

|                              |                                                                     |               |
|------------------------------|---------------------------------------------------------------------|---------------|
| Number of inputs and outputs | Number of analog outputs: 1                                         |               |
| Measuring range              | 0...5000 psi                                                        | 0...34470 kPa |
| Process connection           | threaded connection 9/16" - 18 UNF SAE6 O-Ring BOSS external thread |               |

### Application

|                         |                         |          |
|-------------------------|-------------------------|----------|
| Application             | for mobile applications |          |
| Media                   | liquids and gases       |          |
| Medium temperature [°C] | -40...125               |          |
| Min. burst pressure     | 24650 psi               | 170 MPa  |
| Pressure rating         | 14500 psi               | 100 MPa  |
| Note on pressure rating | static                  |          |
| Vacuum resistance       | -14.5 psi               | -0.1 MPa |
| Type of pressure        | relative pressure       |          |

### Electrical data

|                                 |                 |  |
|---------------------------------|-----------------|--|
| Operating voltage [V]           | 8...32 DC       |  |
| Current consumption [mA]        | < 12            |  |
| 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 analog outputs: 1 |
|------------------------------|-----------------------------|

### Outputs

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

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|                                    |                        |                                                                                                 |                     |
|------------------------------------|------------------------|-------------------------------------------------------------------------------------------------|---------------------|
| Analog voltage output              | [V]                    | 0.5...4.5                                                                                       |                     |
| Min. load resistance               | [Ω]                    | 2000                                                                                            |                     |
| Short-circuit proof                |                        | yes                                                                                             |                     |
| Overload protection                |                        | yes                                                                                             |                     |
| Measuring/setting range            |                        |                                                                                                 |                     |
| Measuring range                    |                        | 0...5000 psi                                                                                    | 0...34470 kPa       |
| 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)                                         |                     |
| Reaction times                     |                        |                                                                                                 |                     |
| Step response time analog 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                                                               |                     |
|                                    |                        | 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]                | 652                                                                                             |                     |
| Pressure equipment directive       |                        | sound engineering practice; can be used for group 2 fluids; group 1 fluids on request           |                     |
| Mechanical data                    |                        |                                                                                                 |                     |
| Weight                             | [g]                    | 62                                                                                              |                     |
| Housing                            |                        | tubular                                                                                         |                     |
| Dimensions                         | [mm]                   | Ø 19 / L = 71.5                                                                                 |                     |
| Material                           |                        | stainless steel (630/1.4542/17-4 PH); stainless steel (1.4404 / 316L); 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 9/16" - 18 UNF SAE6 O-Ring BOSS external thread                             |                     |

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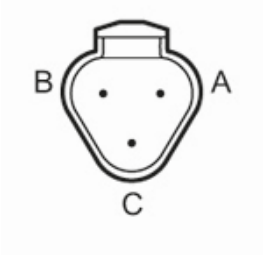
|                               |                          |
|-------------------------------|--------------------------|
| Process connection sealing    | HNBR (DIN EN ISO 1179-2) |
| Restrictor element integrated | yes                      |

Remarks

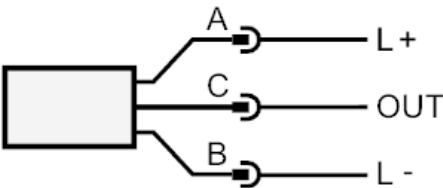
|               |                                                           |
|---------------|-----------------------------------------------------------|
| Remarks       | BFSL = Best Fit Straight Line<br>LS = limit value setting |
| Pack quantity | 1 pcs.                                          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

Electrical connection

Connector: 1 x DEUTSCH connector (DT04-3P); Maximum cable length: 30 m



Connection



OUT                      analog output