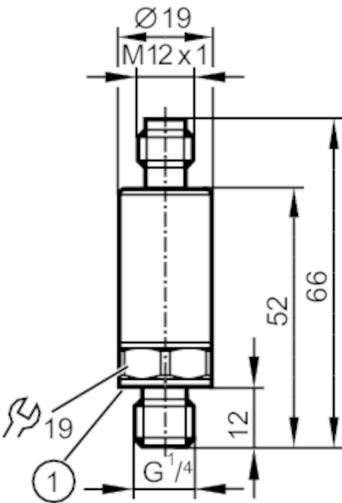


PT5312



Pressure transmitter

PT-160-SEG14-A-ZVG/US/ IW



1      sealing



Product characteristics

|                              |                                                               |              |            |
|------------------------------|---------------------------------------------------------------|--------------|------------|
| Number of inputs and outputs | Number of analog outputs: 1                                   |              |            |
| Measuring range              | 0...160 bar                                                   | 0...2320 psi | 0...16 MPa |
| Process connection           | threaded connection G 1/4 external thread (DIN EN ISO 1179-2) |              |            |

Application

|                         |                             |           |         |
|-------------------------|-----------------------------|-----------|---------|
| Application             | for industrial applications |           |         |
| Media                   | liquids and gases           |           |         |
| Medium temperature [°C] | -40...90                    |           |         |
| Min. burst pressure     | 1100 bar                    | 15950 psi | 110 MPa |
| Pressure rating         | 400 bar                     | 5800 psi  | 40 MPa  |
| Note on pressure rating | static                      |           |         |
| Vacuum resistance       | -1000 mbar                  | -0.1 MPa  |         |
| Type of pressure        | relative pressure           |           |         |

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 analog outputs: 1 |
|------------------------------|-----------------------------|

Outputs

|                            |                                                                                  |
|----------------------------|----------------------------------------------------------------------------------|
| Total number of outputs    | 1                                                                                |
| Output signal              | analog signal                                                                    |
| Number of analog outputs   | 1                                                                                |
| Analog current output [mA] | 4...20                                                                           |
| Max. load [Ω]              | (U <sub>b</sub> – 8,5 V) / 21,5 mA; @8,5V= 0 Ω; @12V max. 160 Ω; @24V max. 720 Ω |
| Short-circuit proof        | yes                                                                              |

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## Pressure transmitter

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|                                                                    |                                                                                                 |                     |            |
|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------|------------|
| Overload protection                                                | yes                                                                                             |                     |            |
| Measuring/setting range                                            |                                                                                                 |                     |            |
| Measuring range                                                    | 0...160 bar                                                                                     | 0...2320 psi        | 0...16 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 and span [% of the span / 10 K] | < 0,1 (-25...90 °C) / < 0,2 (-40...-25 °C)                                                      |                     |            |
| Reaction times                                                     |                                                                                                 |                     |            |
| Step response time analog 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]                                                       | 787                                                                                             |                     |            |
| UL approval                                                        | UL approval number                                                                              | J028                |            |
| Pressure equipment directive                                       | sound engineering practice; can be used for group 2 fluids; group 1 fluids on request           |                     |            |
| Mechanical data                                                    |                                                                                                 |                     |            |
| Weight [g]                                                         | 59.5                                                                                            |                     |            |
| Housing                                                            | tubular                                                                                         |                     |            |
| Dimensions [mm]                                                    | Ø 19 / L = 66                                                                                   |                     |            |
| Material                                                           | stainless steel (630/1.4542/17-4 PH); stainless steel (1.4404 / 316L); 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                                         | FKM (DIN EN ISO 1179-2)                                                                         |                     |            |
| Restrictor element integrated                                      | no (can be retrofitted)                                                                         |                     |            |

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

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 2



| Connection |                                                              |
|------------|--------------------------------------------------------------|
|            |                                                              |
| OUT        | analog output<br>Colors to DIN EN 60947-5-2<br>Core colors : |
| BN =       | brown                                                        |
| BU =       | blue                                                         |