OEM Relative and absolute pressure transmitter type 501

Pressure ranges
-1 ... 0 – 60 bar

Type 501 pressure transmitters, with partially automated production processes, are suitable for larger quantity industrial OEM applications. Various pressure and electrical connections, together with several standardised output signals, provide suitability for a wide variety of applications.

- Compact construction
- Automated manufacture in large quantities for ideal price / performance ratio
- Robust ceramic sensor technology
- High resistance to extreme temperatures
- No mechanical creepage
### Technical overview

#### Pressure range
- Relative: -1 ... 0 – 60 bar
- Absolute: 0 ... 2.5 – 16 bar

#### Operating conditions
- Medium: Liquids and gases
- Temperature:
  - Medium / ambient: -15 ... +80 °C
  - Storage: -40 ... +80 °C
- Tolerable overload: 2 x fs (max. 80 bar)
- Rupture pressure: 3 x fs (max. 90 bar)

#### Materials
- Case: PA6
- Sensor: Ceramic Al₂O₃ (96%)
- Materials in contact with the medium:
  - Pressure connection: Stainless steel 1.4805 / AISI 303
  - Sealing material: FPM, EPDM, NBR, MVQ

#### Electrical overview
- **Output Power supply**
  - 2 wire: 4 ... 20 mA, 8.0 ... 33 VDC
  - 3 wire: 0 ... 5 V, 9.0 ... 33 VDC
- **Load**
  - 2 wire: 0.02 A
  - 3 wire: 0.02 A
- **Current consumption**
  - 2 wire: < 0.02 A
  - 3 wire: < 0.02 A

#### Dynamic response
- **Response time**
  - < 5 ms
- **Load cycle**
  - < 50 Hz

#### Protection standard
- IP 65

#### Electrical connection
- **Cable** 1.5 m
- **Connector** DIN EN 175301-803-A
- **Connector** DIN EN 175301-803-C (industrial standard 9.4 mm)
- **Connector** M12x1

#### Pressure connection
- Inside thread: G ¼ with O-Ring sealing
- Outside thread: G ¼ – 18 NPT
- G ½, sealed at back, DIN 3852-E
- **Pressure connection with cable 1.5 m additional**
  - G ¼, sealed at back and manometer (combi)
  - G ½, sealed at back and manometer (combi)

#### Installation arrangement
- Recommended: Pressure connection downwards

#### Tests / Admissions
- **Electromagnetic compatibility**
  - CE conformity acc. EN 61326-2-3

#### Weight
- **With inside thread**
  - ~ 95 g
- **With outside thread**
  - ~ 95 g
- **With cable 1.5 m additional**
  - ~ 40 g

#### Packaging (Please state on order)
- Single packaging in cardboard
- Multiple packaging in cardboard per 25 pcs.

#### Accurancy

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tolerance zero point</td>
<td>% f.s.</td>
<td>± 1.0</td>
</tr>
<tr>
<td>Tolerance full scale</td>
<td>% f.s.</td>
<td>± 1.0</td>
</tr>
<tr>
<td>Resolution</td>
<td>% f.s.</td>
<td>0.1</td>
</tr>
<tr>
<td>Total of linearity, hysteresis and repeatability</td>
<td>% f.s.</td>
<td>± 0.5</td>
</tr>
<tr>
<td>Long term stability acc. to DIN EN 60770</td>
<td>% f.s.</td>
<td>± 1.0</td>
</tr>
<tr>
<td>TC zero point</td>
<td>% f/s/10K</td>
<td>± 0.4</td>
</tr>
<tr>
<td>TC sensitivity</td>
<td>% f/s/10K</td>
<td>- 0.15</td>
</tr>
<tr>
<td>TC sensitivity</td>
<td>% f/s/10K</td>
<td>- 0.3</td>
</tr>
</tbody>
</table>

Test conditions: 25 °C, 45% RH, power supply 24 VDC
TC z.p. / TC s. -40 ... +80 °C
1) According to ISO standard R 1629, other sealing materials on request
2) Without female connector
3) Accessories supplied loose

### Accessories

<table>
<thead>
<tr>
<th>Description</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female connector DIN EN 175301-803-A with seal Ø 65, when installed and (latched)</td>
<td>103510</td>
</tr>
<tr>
<td>Female connector DIN EN 175301-803-C with seal Ø 65, when installed and (latched)</td>
<td>104244</td>
</tr>
<tr>
<td>Female connector M12x1</td>
<td>106975</td>
</tr>
<tr>
<td>Calibration certificate</td>
<td>104551</td>
</tr>
</tbody>
</table>

Note: ^ According to ISO standard R 1629, other sealing materials on request  
^ Without female connector  
^ Accessories supplied loose
Dimensions in mm / Electrical connections

Inside thread G ¼

Female connector DIN EN 175301-803-C

Female connector DIN EN 175301-803-A

Female connector M12x1

3 wire

2 wire

3 wire

2 wire

3 wire

2 wire