Industrial pressure transmitters
Series EIT3X2
for applications in hazardous areas

Description
Due to modern diaphragm and amplifier technology, these transducers are intended for use in the hardest industrial applications. Specializing in dynamic, pulsating hydraulic pressure regulation for injection moulding machines and presses, they have for more than 20 years proven their excellent accuracy and long term stability. Automotive cranes, industrial robots, concrete pumps, industrial test purposes and off-shore business are further installation possibilities with high demands with respect to accurate pressure, vibration and shock resistance, as well as weatherproofing. The flush diaphragm version IDA 37X is designed for applications requiring a zero volume pressure port in measurement of gases, viscous liquids and slurries and has excellent cleanability.

Features
- Intrinsic safety Ex-Classification EEx ia IIC T5
- Stainless steel construction withstands harsh operating environments and corrosive media
- Contoured diaphragm ensures greater accuracy, repeatability and fatigue strength
- Optimum diaphragm heat treatment contributes to a longer operating life
- Internal Shunt-Calibration provides quick transducer and system calibration
- Potted electronics resists shock and vibration

Technical Data / Operating Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure range</td>
<td>0 - 20* bar to 0 - 1000 bar</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 0,25 % f.s.v.</td>
</tr>
<tr>
<td></td>
<td>± 0,5 % for EIT372</td>
</tr>
<tr>
<td>Repeatability</td>
<td>± 0,1 % f.s.v.</td>
</tr>
<tr>
<td>Resolution</td>
<td>infinite</td>
</tr>
<tr>
<td>Response</td>
<td>1,5 kHz (-3dB)</td>
</tr>
<tr>
<td>Burst pressure</td>
<td>4 x pressure range</td>
</tr>
<tr>
<td></td>
<td>3 x pressure at 0 - 20 bar</td>
</tr>
<tr>
<td></td>
<td>and 0 - 1000 bar</td>
</tr>
<tr>
<td>Material in contact with media</td>
<td>15-5 Mat. No. 1.4545</td>
</tr>
<tr>
<td>* 20 bar range only with 35 bar element and option</td>
<td></td>
</tr>
<tr>
<td>D30/20 calibration 20 bar range</td>
<td></td>
</tr>
</tbody>
</table>

Electrical Characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration</td>
<td>4-arm Wheatstone bridge strain gauge (DMS)</td>
</tr>
<tr>
<td>Strain resistance</td>
<td>350 Ω</td>
</tr>
<tr>
<td>Output signal</td>
<td>4 - 20 mA</td>
</tr>
<tr>
<td>Zero adjustment</td>
<td>- 2 % / + 5 % f.s.v.</td>
</tr>
<tr>
<td>Supply voltage</td>
<td>10 - 36 V DC</td>
</tr>
<tr>
<td>Internal Shunt-Calibration</td>
<td>80 % f.s.v. ± 0,5 %</td>
</tr>
<tr>
<td>Span adjustment</td>
<td>± 0,5 % f.s.v.</td>
</tr>
<tr>
<td>Leakage resistance</td>
<td>1000 MΩ at 50 V DC</td>
</tr>
</tbody>
</table>
**Model EIT3X2**

### Temperature influence

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. media temperature</td>
<td>85 °C</td>
</tr>
<tr>
<td>Zero shift due to temperature change</td>
<td>± 0.1 % f.s.v. / 10 °C</td>
</tr>
<tr>
<td>Sensitivity shift due to temperature change</td>
<td>± 0.2 % f.s.v. / 10 °C</td>
</tr>
</tbody>
</table>

### Safety Specification

**PTB-Approval No.**  EX.90C.2155

Harmonized CENELEC approval acc. EN50014 and EN50020

Safety class

- EEx ia IIC T5 up to 80 °C
- EEx ia IICT1-T4 up to 85 °C

### Dimensions

#### EIT332

![Image of EIT332 dimensions]

#### EIT352

![Image of EIT352 dimensions]

#### EIT372

![Image of EIT372 dimensions]

### Order specifications

**Pressure side connection**

- 3 = Internal ISO 228/1-G1/4
- 5 = External DIN 3852-AG1/4A
- 7 = M18 x 1.5 flush diaphragm

**Pressure range**

- (20) = 0 - 20 bar
- (35) = 0 - 35 bar
- 50 = 0 - 50 bar
- 1C = 0 - 100 bar
- 1,5C = 0 - 150 bar
- 2C = 0 - 200 bar
- 3,5C = 0 - 350 bar
- 5C = 0 - 500 bar
- 7C = 0 - 700 bar
- 1M = 0 - 1000 bar

* only for EIT372, 20 bar range only with option D30/20 calibration 20 bar range

**Options**

- D05 = Cable connection
- D06 = Cable connector IP65
- D21 = Bendix-Connector
- D30 = Special calibration for IDA with amplifier

**Associated electrical apparatus must fulfill the following specification:**

- max. Supply Voltage 28 V DC
- max. mAmp. Supply 93 mA
- max. power supply 690 mW
- max. transducer inductivity 1 mH
- max. transducer capacity 53 nF

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