

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

Pressure range	0 - 20* bar to 0 - 1000 bar	Burst pressure	4 x pressure range 3 x pressure at 0 - 20 bar and 0 - 1000 bar
Accuracy	± 0,25 % f.s.v. ± 0,5 % for EIT372	Material in contact with media	15-5 Mat. No. 1.4545
Repeatability	± 0,1 % f.s.v.		
Resolution	infinite		
Response	1,5 kHz (-3dB)		

* 20 bar range only with 35 bar element and option
D30/20 calibration 20 bar range

Electrical Characteristics

Configuration	4-arm Wheatstone bridge strain gauge (DMS)	Supply voltage	10 - 36 V DC
Strain resistance	350 Ω	Internal Shunt-Calibration	80 % f.s.v. ± 0,5 %
Output signal	4 - 20 mA	Span adjustment	± 0,5 % f.s.v.
Zero adjustment	- 2 % / + 5 % f.s.v.	Leakage resistance	1000 M Ω at 50 V DC

Temperature influence

Max. media temperature 85 °C

Max. operating temperature 85 °C Temp. class T1 - T4
80 °C Temp. class T5

Zero shift due to temperature change

± 0,1 % f.s.v. / 10 °C
EIT372 ± 0,4 % f.s.v. / 10 °C

Sensitivity shift due to temperature change

± 0,2 % f.s.v. / 10 °C
EIT372 ± 0,4 % f.s.v. / 10 °C

Safety Specification

PTB-Approval No. EX.90C.2155

Harmonized CENELEC approval acc. EN50014 and EN50020

Safety class

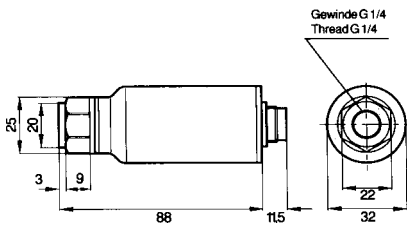
EEx ia IIC T5 up to 80 °C
EEx ia IICT1-T4 up to 85 °C

Associated electrical apparatus must fulfill the following specification:

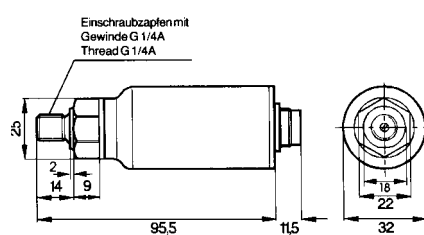
max. Supply Voltage 28 V DC
max. mAmp. Supply 93 mA
max. power supply 690 mW
max. transducer inductivity 1 mH
max. transducer capacity 53 nF

Dimensions

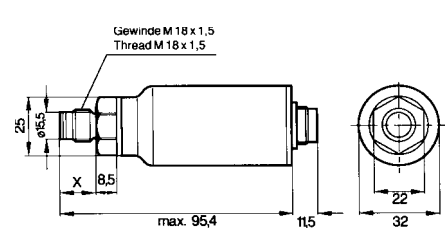
EIT332



EIT352



EIT372



Order specifications

EIT3X2 - XXXX - XXX

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