Differential Pressure Transmitter for Liquid Medium PPE

Product overview

For differential pressure detection in liquid mediums of the air-conditioning, heating and water technique. Also suitable for light aggressive liquids.

Types available

Type code	Type	Description
EXT-TN-1072112	PPE1.EDa	4...20mA, 0...0.5bar
EXT-TN-1071993	PPE1.ADa	4...20mA, 0...1bar
EXT-TN-1072006	PPE1.BDa	4...20mA, 0...2.5bar
EXT-TN-1066845	PPE1.CDa	4...20mA, 0...4bar
EXT-TN-1066852	PPE1.DDa	4...20mA, 0...6bar
EXT-TN-1072129	PPE1.EAa	0...10V, 0...0.5bar
EXT-TN-1072037	PPE1.AAa	0...10V, 0...1bar
EXT-TN-1072044	PPE1.BAa	0...10V, 0...2.5bar
EXT-TN-1072051	PPE1.CAa	0...10V, 0...4bar
EXT-TN-1072068	PPE1.DAa	0...10V, 0...6bar

Technical data

Standards	CE conformity	- 2004/108/EG Electromagnetic compatibility - 2001/95/EG Product safety
	EN conformity	- EN61326-1 (2006) Electrical equipment for measurement, control and laboratory use EMC requirements - EN61326-2-3 Particular requirements test configuration, operational conditions and performance criteria for transducer with integrated or remote signal conditioning - EN61010-1 Safety requirements for electrical equipment for measurement, control, and laboratory use
General data	Material contacting the medium	Ceramic / stainless steel Al2O3/1.4305
	Sealing material	EPDM
	Measuring range	Depending on the sensor used
	Pressure type	Differential pressure
	Static pressure	21bar
	Max. Pressure Difference	200% measuring range
	Bursting Pressure	300% measuring range
	Dynamic response	Suitable for static and dynamic measurements for response time <10ms
	Accuracy	Typical ±1% in the temperature range -5...75°C
	Electrical connector	Angle plug according to DIN 43650 construction A
	Pressure connector	Inside thread G1/4”
	Installation arrangement	Unrestricted
	Enclosure	- Bottom part : stainless steel 1.4305 - Top cover : aluminium pressure die casting
	Protection	IP65 according to EN60529
	Ambient temperature	-10...50°C
	Media temperature	-10...80°C
	Transport	-20...50°C / max. 85% RH, non-condensing
	Weight	510g
Type PPE1.xDa	Power supply	DC 15-24V(±10%) (2-wire)
	Power consumption	Max. 0.5W
	Output	4...20mA, max. load 900Ω / DC 24V
Type PPE1.xAa	Power supply	DC 15-24V(±10%) or AC 24V(±10%) (3-wire)
	Power consumption	Typical 0.37W / 0.9VA
	Output	0...10V, min. load 2kΩ

Security advice ⚠

The installation and assembly of electrical equipment may only be performed by an authorised and skilled electrician.
The modules must not be used with equipment that supports, directly or indirectly, human health or life or with applications that can result in danger for people or animals.

Mounting advice

- The device is designed for assembly on smooth walls or mounting plates.
- For connecting the device, the process lines must be unpressurised.
- The device has to be secured against pressure surges by appropriate measures.
- Note the suitability of the device for the medium to be measured.
- The device is designed for pipe mounting.
- Note the maximum pressures
- To avoid the occurrence of interfering dead times, the pressure sensing leads shall be as small as possible and shall be laid without any sharp bends.
- With pulsating pressures on the system, function interferences of the device can be caused. As a protection, the installation of attenuating elements in the pressurised connection line is recommended.

Electrical connection

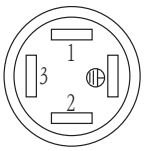
The devices are constructed for the operation of protective low voltage (SELV). For the electrical connection, the technical data of the corresponding device is valid.
Sensing devices with transducer should in principle be operated in the middle of the measuring range to avoid deviations at the measuring end points. The ambient temperature of the transducer electronics should be kept constant. The transducers must be operated at a constant supply voltage (±0.2V).
When switching the supply voltage on/off, power surges must be avoided.

Installation

A prerequisite for the operation is a proper installation of all electrical supply, control and sensing leads as well as the pressurised connection line.
Before installing the device, the leak tightness of the pressurised connection lines must be inspected.
Pressurised sensing leads to be connected:
+: higher pressure
-: lower pressure

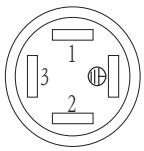
Terminal connection plan

0-10V
(3-wire)



1 : Uv: 15-24V=/24V~
2 : GND
3 : Out 0-10V
⏚: Shield

4-20mA
(2-wire)



1 : Uv: 15-24V=
2 : Out 4-20mA
⏚: Shield

Dimensions (mm)