

 TI4310en	Technical Information	
PPE1- Series (dP)	Water Differential Pressure Sensor with Active Output	

The PPE1- Series (dP) is designed to measure differential water pressure
in HVAC heating and cooling systems with light aggressive liquids and refrigerants

The sensor is temperature compensated

The sensor operates with low power supply

The control output is active.

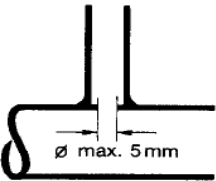
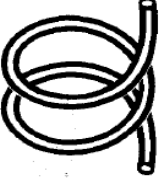
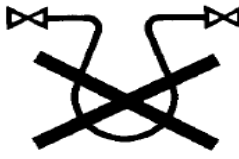


Use	Compatible to all common HVAC DDC and Analog Controls systems, with/without Building Automation System
	Differential pressure measurement in HVAC water systems
	Used in all common HVAC applications
	Used in Commercial and Industrial Buildings

Features	Sensor with active output
	Laser welding, full-sealed construction; protection IP67
	Temperature compensated, high precision device
	Strong anti- interference ability, perfect long-term stability
	Professional and practical product design, withstands rough environmental conditions
	Easy to use, install and maintain

Product Range	Order Code	Power Supply	Pressure Range	Output	Accuracy	IP Protection	Measuring Membrane	Connection Thread	Burst Pressure
	PPE1.EAa	AC/DC 24V ±10% ; SELV	0...0.5bar	0 ...10V	0.5% Full Scale @ 25°C	IP67 to IEC60529	0.5% Full Scale @ 25°C	G1/4", female thread	300% of Measuring Range
	PPE1.AAa		0...1bar						
	PPE1.BAa		0...2.5bar						
	PPE1.CAa		0...4bar						
	PPE1.DAa		0...6bar						
	PPE1.EDa	DC 24V ±10% ; SELV	0...0.5bar	4...20mA					
	PPE1.ADa		0...1bar						
	PPE1.BDa		0...2.5bar						
	PPE1.CDa		0...4bar						
	PPE1.DDa		0...6bar						

Sensor Specification	Sensor Specification	Measured Sensor Characteristics Sensor Output (s) Accuracy Compensated Temperature Range Temperature Drift (FS), typically Long Term Stability Medium Temperature Range Busting Pressure (diaphragm) Measuring Range (s)	Water Differential Pressure Active 0..10V / 4...20mA 0.5% Full Scale @ 25°C -10°C...+80°C ±0.02% FS / °C ±0.2% FS / Year -40°C...+125°C 300% of Measuring Range See Product Range, Page 1
	Electrical Information	Power Supply Type: PPE1.xAa Type: PPE1.xDa Frequency Insulation Resistant Terminal Clam Power Consumption Type: PPE1.xAa Type: PPE1.xDa	AC/DC 24V (±10%) DC 24V (±10%) 50 / 60 Hz at AC 24V <1ms Plug-in connector ≤ 1VA / AC 24V; ≤ 1VA / DC 24V ≤ 0.5VA / DC 24V
Technical Information	Mechanical Information	Cable Entry Sensing Element Position Connection Type Sensing Element Position	Angle Plug, DIN 43 650, Construction A Inside the housing G1/4", female thread Inside the housing
	Color and Materials	Housing Cover Housing Botto Diaphragm O- Ring Cable Gland	Black PP, RAL 9017 (Traffic Black) US:AISI 303; EU: en X 10 CrNiS 18 9; Ger.: W.N. 1.4305 US:AISI 316L; EU: EN/DIN 1.4404 VITRON® Black PP, RAL 9017 (Traffic Black)
	Environmental Conditions	Operation Temperature Operation Humidity Transport Temperature Transport Humidity Storage Temperature Storage Humidity	-25°C...+70°C 100% r.h., with condensation -35°C...+70°C < 90% r.h. -10°C...+70°C < 85% r.h., no condensation
	Norms and Directives	IP- Rating Safety Class Product Standard 1 Product Standard 2 CE Conformities to CE Electromagnetic Compatibility Emitted Interference CE Electromagnetic Compatibility Interference Resistance RoHS Compatibility Operation Climatic Condition Operation Mechanical Condition Transport to Climatic Condition Transport Mechanical Condition Storage Climatic Condition Storage Mechanical Condition	IP67 to IEC60529 III to EN 60 730 Automatic Electric. Controls for household and similar use 2009/EN 60 730-1 2004/108/EG Electromagnetic Compatibility EMV 2000/EN60730-1 Emitted Interference 2000/EN60730-1 Interference Resistance RoHS 3, Directive 2015/863 IEC 60 721-3-3 IEC 60 721-3-2 to class2M2 IEC 60 721-3-2 IEC 60 721-3-2 to class2M2 IEC 60 721-3- IEC 60 721-3-1 to class2M2
Miscellaneous	Accessories	None	
	Shipping & Handling	Minimum Order Package Material	1 box with 1 piece Rigid Cardboards Packaging
	Order Notes	Order Code	See Prod. Range, Page 1, e.g. PPE1.EAa

	Installation Notes  Observe the following general regulation for engineering and implementation: All relevant national and heavy power regulation Other country specific regulations Country-specific regulations Local electrical supply authority regulation Schematics, cable listings, dispositions, specification and arrangements from the customer or engineering office in charge Third party specifications, e.g. general contractors or constructors
Advices	Mounting Advices    
	Disposal Notes  The device is considered an electronic device for disposal in terms of the EUROPEAN DIRECTIVE 2012/19/EU. The Device may not be disposed as domestic garbage. The device must be disposed through channels provided for this purpose. It is mandatory to complying with local currently applying laws and regulations.
Connection	<i>PPE1.xAa</i> (1) UB+ (AC/DC24V) (3) Output 0..10V  <i>PPE1.xDa</i> (1) UB+ (DC24V) (3) n.a. 
Dimensional Drawing	