

4310e	<b>Product Information</b>	<b>thermokon</b> asia pacific
PPE1- Series (dP)	<b>Water Differential Pressure Active Sensor</b>	



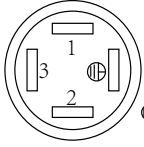
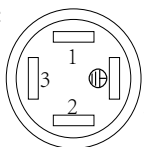
The PPE1-Series (dP) is designed to measure differential water pressure in HVAC heating and cooling systems with light aggressive liquids and refrigerants. The control output is active.

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

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

<b>Product Range</b>		Measuring Range					Sensor Output	
	Model	0...0.5bar	0...1bar	0...2.5bar	0...4bar	0...6bar	0-10V	4...20mA
	PPE1.EAa	•						
	PPE1.AAa		•				•	
	PPE1.BAa			•			•	
	PPE1.CAa				•		•	
	PPE1.DAa					•	•	
	PPE1.EDa	•						
	PPE1.ADa		•					•
	PPE1.BDa			•				•
	PPE1.CDa				•			•
	PPE1.DDa					•		•

*All Information and technical data are subject to alteration*

<b>Sensor Specification</b>	Sensor Specification	<p>Measured</p> <p>Sensor Characteristics</p> <p>Sensor Output (s)</p> <p>Accuracy</p> <p>Compensated Temperature Range</p> <p>Temperature Trift (FS), typically</p> <p>Long Term Stability</p> <p>Medium Temperature Range</p> <p>Busting Pressure (diaphragm)</p> <p>Medium Temperature Range</p> <p>Measuring Range (s)</p>	<p>Water Differential Pressure</p> <p>Active</p> <p>See Product Range, Page 1</p> <p>0.5% Full Scale @ 25°C</p> <p>-10°C...+80°C</p> <p>±0.02% FS / °C</p> <p>±0.2% FS / Year</p> <p>-40°C...+125°C</p> <p>300% of Measuring Range</p> <p>-40°C...+125°C</p> <p>See Product Range, Page 1</p>
<b>Technical Information</b>	<p>Electrical Information</p> <p>Mechanical Information</p> <p>User Interface</p> <p>Color and Materials</p> <p>Environmental Conditions</p> <p>Norms and Directives</p>	<p>Power Supply</p> <p>Type: PPE1.xAa</p> <p>Type: PPE1.xDa</p> <p>Frequency</p> <p>Insulation Resistant</p> <p>Terminal Clamp</p> <p>Power Consumption</p> <p>Type: PPE1.xAa</p> <p>Type: PPE1.xDa</p> <p>Cable Entry</p> <p>Sensing Element Position</p> <p>Connection Tread</p> <p>Sensing Element Position</p> <p>Set Point Adjustments</p> <p>Housing Cover</p> <p>Housing Bottom</p> <p>Diaphragm</p> <p>O- Ring</p> <p>Cable Gland</p> <p>Operation Temperature</p> <p>Operation Humidity</p> <p>Transport Temperature</p> <p>Transport Humidity</p> <p>Storage Temperature</p> <p>Storage Humidity</p> <p>IP- Rating</p> <p>Safety Class</p> <p>Product Standard 1</p> <p>Product Standard 2</p> <p>CE Conformities to</p> <p>CE Electromagnetic Compatibility Emitted Interference</p> <p>CE Electromagnetic Compatibility Interference Resistance</p> <p>RoHS Compatibility</p> <p>Operation Climatic Condition</p> <p>Operation Mechanical Condition</p> <p>Transport to Climatic Condition</p> <p>Transport Mechanical Condition</p> <p>Storage Climatic Condition</p> <p>Storage Mechanical Condition</p>	<p>AC 15-24V (±10%) or DC 24V (±10%)</p> <p>DC 15-24V (±10%)</p> <p>50 / 60 Hz at AC 24V</p> <p>&lt;1ms</p> <p>Plug-in connector</p> <p>≤ 1VA / AC 24V; ≤ 1VA / DC 24V</p> <p>≤ 0.5VA / DC 24V</p> <p>Angle Plug, DIN 43 650, Construction A</p> <p>Inside the housing</p> <p>G1/4", female thread</p> <p>Inside the housing</p> <p>Same as pressure range, see Product Range, Page 1</p> <p>Black PP, RAL 9017 (Traffic Blac</p> <p>US:AISI 303; eU: eN X 10 CrNIS 18 9; GeR: W.N. 1.4305</p> <p>US:AISI 316L; EU: EN/DIN 1.4404</p> <p>VITRON®</p> <p>Black PP, RAL 9017 (Traffic Black)</p> <p>-25°C...+70°C</p> <p>100% r.h., with condensation</p> <p>-35°C...+70°C</p> <p>&lt; 90% r.h.</p> <p>-10°C...+70°C</p> <p>&lt; 85% r.h., no condensation</p> <p>IP67 to IEC60529</p> <p>III to EN 60 730</p> <p>Automatic Electric. Controls for household and similar use</p> <p>2009/EN 60 730-1</p> <p>2004/108/EG Electromagnetic Compatibility EMV</p> <p>2000/EN60730-1 Emitted Interference</p> <p>2000/EN60730-1 Interference Resistance</p> <p>RoHS 2011/65/EC</p> <p>IEC 60 721-3-3</p> <p>IEC 60 721-3-2 to class2M2</p> <p>IEC 60 721-3-2</p> <p>IEC 60 721-3-2 to class2M2</p> <p>IEC 60 721-3-1</p> <p>IEC 60 721-3-1 to class2M2</p>
<b>Connection</b>	Terminal Connection	<p>0-10V:</p>  <p>1: Uv: 15-24V= /24V~</p> <p>2: GND</p> <p>3: Out 0-10V</p> <p>⊕: Shield</p>	<p>4-20mA:</p>  <p>1: Uv: 15-24V=</p> <p>2: Out 4-20mA</p> <p>⊕: Shield</p>
<b>Miscellanies</b>	<p>Accessories</p> <p>Shipping &amp; Handling</p> <p>Order Notes</p>	<p>None</p> <p>Minimum Order</p> <p>Product Dimension (L x W x H) / Weight</p> <p>Transport and Storage dimension (L x W x H) / Weight</p> <p>Package Material</p> <p>Order Code</p>	<p>1 box with 1 piece</p> <p>130mm x 63mm x 36mm / 520gr.</p> <p>135mm x 70mm x 45mm /540gr.</p> <p>Rigid Cardboards Packaging</p> <p>See Product Range, Page 1, e.g. PPE1.EA</p>
All Information and technical data are subject to alteration			
Thermokon Asia Pacific	PPE1- Series (dP) V2.1	Page 2 / 3	

**Security Advice**



The installation and assembly of electrical equipment may only be performed by a skilled electrician.

The products must not be used in any relation with equipment that supports, directly or indirectly, human health, life or with applications that can result in danger for people, animals or real value.

Avoid mechanical shocks during installation and transport. Don't touch the diaphragm.

The connection of the "+" and "-" pressure ports must be correctly installed otherwise the product may be damaged.

Please make sure the wire connection is according to the terminal connection (on Page 2), wrong wire connection can damage the product.

**Mounting Advices**



During connecting the device, the process lines must be unpressurized.

Note the suitability of the device for the medium to be measured.

Note the maximum pressures.

Do not mount the product near high vibration or heating source.

Use a wrench to mount the device to the pipe.

"+" port measures the positive pressure side and "-" port measures the negative pressure side of the system.

**Installation Notes**



Install the product on a place easy for mounting and maintaining the product.

Before installing the product, the leak tightness of the pressurized connection lines must be inspected.

**Commissioning Notes**



Please make sure the product and wires are installed correctly.

If you find anything wrong with the product, don't install it, contact the supplier.

Advices

Dimensional Drawing

