

# PPE2

## Water Differential Pressure Switch



The PPE2-Series is widely used for water flow proving in water / air cooled chillers and as a monitor for water pumps and filters of plate heat exchangers.

### Use

Compatible to all common HVAC DDC and Analog Controls systems, with/without Building Automation System

Water pressure measurement in HVAC water systems

Monitoring the flow controls of the ventilation system filters, boilers and air conditioner

Used in all common HVAC applications

Used in Commercial and Industrial Buildings

### Features

Voltage free contact output

Fixed single set point differential pressure

Pre-setting value cannot be changed to reduce unit fault and wrong installation

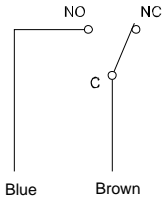
Various pressure ranges with high precision and reliability

Professional and practical product design, withstands rough environmental conditions

Easy to use, install and maintain

### Product Range

	Set Point	Return Differential
<b>Model</b>	0.05bar	0.002bar
PPE2.AA	●	●

<b>Sensor Specification</b>	Sensor Specification	<p>Measured</p> <p>Sensor Characteristics</p> <p>Sensor Output (s)</p> <p>Measuring Range (s)</p> <p>Differential Gap</p> <p>Repeatability</p> <p>Max. Pressure Difference</p> <p>Max. Static Pressure</p> <p>Medium Temperature Range</p> <p>Measuring Range (s)</p>	<p>Water Differential Pressure</p> <p>Passive</p> <p>SPDT micro-switch (NO/ NC)</p> <p>Same as set point, see Product Range, Page 1</p> <p>See Product Range, Page 1</p> <p>±1%</p> <p>Max. 5bar</p> <p>Max. 10bar</p> <p>-20°C...+93°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>Terminal Clamp</p> <p>Relay Rating</p> <p>Cable Length</p> <p>Cable Diameter</p> <p>Cable Entry</p> <p>Connection Type</p> <p>Sensing Element Position</p> <p>Set Point Adjustments</p> <p>Housing Cover</p> <p>Housing Bottom</p> <p>Diaphragm</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>Screw terminal, max. 2.5mm<sup>2</sup></p> <p>AC 250V, max. 10A</p> <p>1m</p> <p>2x0.75mm<sup>2</sup>, 105 °C resistance burning cable</p> <p>M16, Ø6...Ø8mm cables</p> <p>G1/4", NPT male thread</p> <p>Inside the housing</p> <p>See Product Range, Page 1</p> <p>Black ABS, RAL 9017 (Traffic Black)</p> <p>Brass</p> <p>EPDM</p> <p>Black PP, RAL 9017 (Traffic Black)</p> <p>-20°C...+85°C</p> <p>&lt;85% r.h., no condensation</p> <p>-10°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>IP54 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		
<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>100mm x 89mm x 62mm / 605gr.</p> <p>160mm x 140mm x 75mm / 670gr.</p> <p>Rigid Cardboards Packaging</p> <p>See Product Range, Page 1, e.g. PPE2.AA</p>



All Information and technical data are subject to alteration

PPE2- Series (dP) V1.1

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**Advices**

**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.

**Mounting Advices**



Do not try to open the brass shell in any case.  
Proper mounting position is important to the measuring accuracy, please mount it near the outlet or inlet of the heat exchanger.  
It is better to invert the switch or mount it little uper to the inlet board of the heat exchanger, the water can run out from the brass pipe.

**Installation Notes**



The product must be installed at a suitable place and within the range of validity of the local electrical installation laws and regulations.  
The positive "+" should be connected to the High pressure connection (Inlet of the heat exchanger) and the "-" to the Low pressure connection (Outlet of the heat exchanger).

**Commissioning Notes**



The pressure switch is factory-calibrated in the vertical position. If installed horizontally, the actual value is 20Pa higher than the set value.  
The setting value can be set by adjusting the knob, no need to install the meter, use the "-"screwdriver to adjust the return difference.  
When use the switch in water chilling unit systems, to avoid the pump cavitation, please make sure the water is fullfilled and no air in before commission.

**Dimensional Drawing**

