



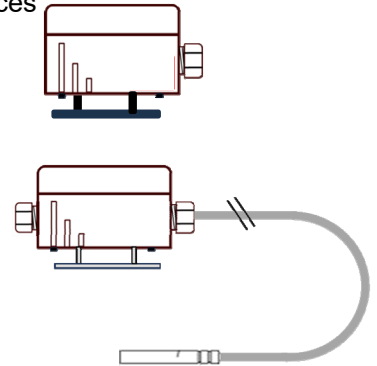
The HPS2- Series (H_cs) is designed to prevent dew formation on pipes or flat surfaces

The Pipe / Surface Condensation Switch is available with extended passive te

The Pipe / Surface Condensation Switch has two Status LED's

The Pipe / Surface Condensation Switch operates with lower power supply

The relay switching outputs are potential free (SPDT)

**Use**

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

Used in all common HVAC applications

Used in Commercial and Industrial Buildings

Features

Low voltage, relay switching output

Condensation detection of conductive water or similar liquids via a sensor plate below the housing

LED's for Status Detection

Status LED's can be enabled

The extends, passive temperature sensor is available as NTC or PT characteristics

Calibration potentiometer for the measuring sensitivity

Professional and practical product design, withstands rough environmental conditions

Easy to use, install and maintain

Product Range

Order Code	Power Supply	Temp. Sensor Output*	Measured	Sensor Type	Relay Output	Switching Hysteresis	Temperature Measuring Range	Temperature Accuracy	LED	IP Protection
HPS2G.LA	AC/DC 24V (±10%)	n.a	Conductive water or similar liquids	Electrolytic conduction	SPDT Output Switching Load 3 A	±5% r. h.	-10...50dC / 2m cable length	n.a	Green= Normal Operation Red= Condensation	IP54 to IEC60529
HPS2G.MG		PT1000						± 0.15K @ 0°C DIN EN 60751, class A		
HPS2G.MP		NTC10k						±0.25K @ 25°C		

* other sensor elements available

Sensor	Sensor Specification	Measured	Conductive water or similar liquids
		Sensing Type, condensation	Electrolytical conductance measurement
		Response time	30sec for 75% r.h. rise
		Switching point (default)	~85% r.h.
		Switching hysteresis	±5% r.h.
		Operating Range	0...100% r.h.
		Temperature Sensor Characteristics	NTC10k / PT1000
		Temperature Accuracy PT1000	± 0.15K @ 0°C DIN EN 60751, class A
		Temperature Accuracy NTC10k	±0.25K @ 25°C
		Temperature Measuring Range	-10...50dC
Technical Information	Electrical Information	Power Supply	AC/DC 24 V (±10 %)
		Frequency	50 / 60 Hz at AC 24 V
		Relay Rating	24 V / 3 A - peak 5 A
		Relay Type	Relay SPDT
		Terminal Clamp	Screw terminal, max. 1.3 mm ²
	Mechanical Information	Cable Entry	M16 x 1.5
		Sensing Element Position	Sensor plate below the housing
	User Interface	LED	Green = No liquid detected
			Red = Liquid detected
	Temperature Cable	Potentiometer	Detection Sensibility Potentiometer
		Grey PVC	2m cable lengths - ~ 4.6mm
	Colour and Materials	Housing Cover	ABS, white
		Housing Bottom	ABS, white
		Cable Gland	M16 x 1.5 mm , white
		Gland Rubber Seal	Transparent
	Environmental Conditions	Operation Temperature	5 °C to +60 °C
		Operation Humidity	< 85 % RH, no condensation
		Transport Temperature	5 % RH to 95 % RH, no condensation
		Transport Humidity	< 90 % RH
		Storage Temperature	-10 °C to +70 °C
		Storage Humidity	< 85 % RH, no condensation
	Norms and Directives	IP-Rating	IP54 to IEC60529
		Safety Class	III to EN 60 730
		Product Standard 1	Automatic Electric. Controls for household and similar use
		Product Standard 2	2009/EN 60 730-1
		CE Conformities to	2004/108/EG Electromagnetic Compatibility EMV
		CE Electromagnetic Compatibility Emitted Interference	2000/EN60730-1 Emitted Interference
		CE Electromagnetic Compatibility Interference resistance	2000/EN60730-1 Interference Resistance
		RoHS Compatibility	RoHS 3, Directive 2015/863
		Operation Climatic Condition	IEC 60 721-3-3
		Operation Mechanical Condition	IEC 60 721-3-2 to class2M2
		Transport to Climatic Condition	IEC 60 721-3-2
		Transport Mechanical Condition	IEC 60 721-3-2 to class2M2
		Storage Climatic Condition	IEC 60 721-3-1
Storage Mechanical Condition	IEC 60 721-3-1 to class2M2		
Miscellaneous	Accessories	Mounting Kit, Included in delivery	cable fastener 300mm / thermal past / pipe surface connector
	Shipping & Handling	Minimum Order	1 box with 1 piece
		Package Material	Rigid Cardboards Packaging
Order Notes	Order Code	See Product Range, Page 1, e.g. HPS2G.LA	

All information and technical data are subject to alteration

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

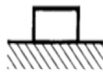
Schematics, cable listings, dispositions, specification and arrangements from the customer

or engineering office in charge

Third party specifications, e.g. general contractors or constructors

Advices

Mounting Advices



MANDATORY to use Thermal Paste for Temperature sensor

Disposal Notes

The device is considered an electronic device for disposal in terms of the

EUROPEAN DIRECTIVE 2012/19/EU.

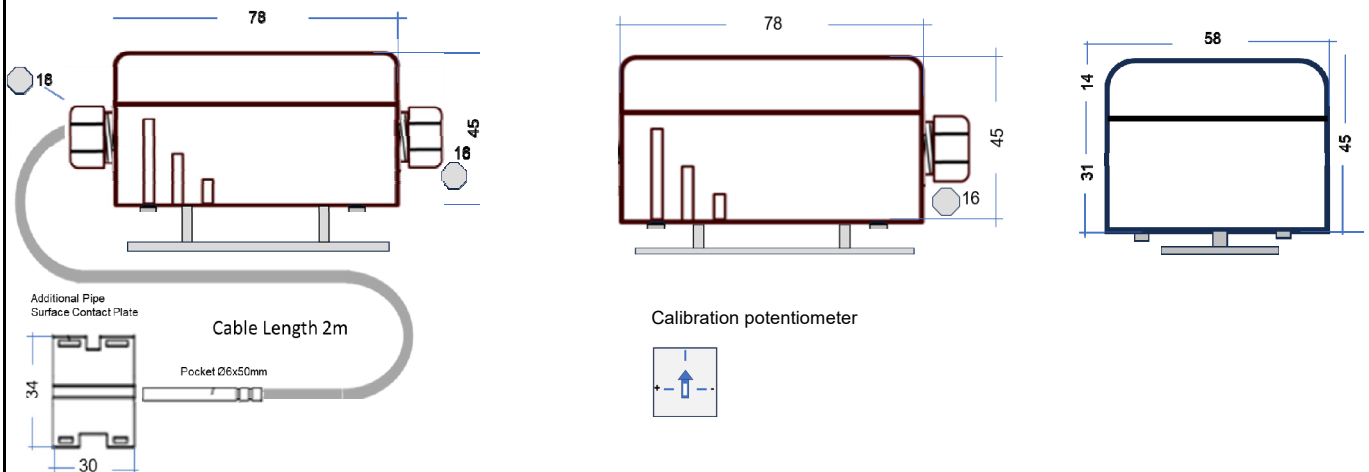


The device may not be disposed as domestic garbage.

The device must be disposed through channels provided for this purpose.

It is mandatory to complying with local currently applying laws and regulations.

Dimensional Drawing



Connection

Terminal Connections

Power Supply		Relay			Sensor	
GND	24V AC/DC	COM	NO	NC (default)	T1	T2

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