
 <b>DS1362en</b>	<b>Data Sheet</b>	
<b>HPS2-Series (H_lgs)</b>	<b>Surface liquid (Leakage) detection with relay switching output</b> <b>optional with passive temperature sensor</b>	

The HPS2-Series (H\_lgs) is designed to detect conductive liquid on flat surfaces

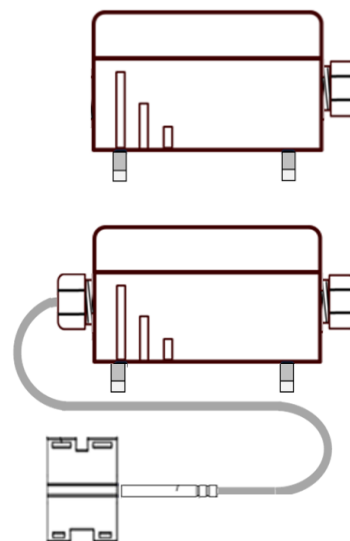
The four detection points are located at the bottom of the housing

The surface liquid (Leakage) detection switch has two status LEDs

The surface liquid (Leakage) detection switch operates with low power supply

Optional temperature sensor for universal or pipe-surface applications

The relay switching outputs are potential free (SPDT)






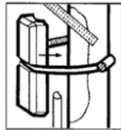
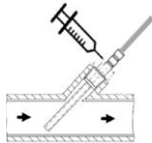
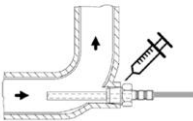

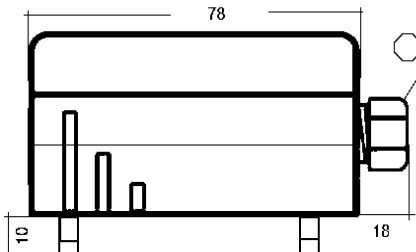
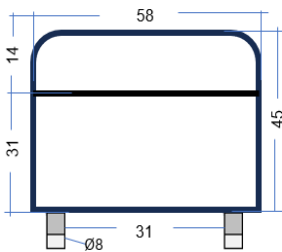
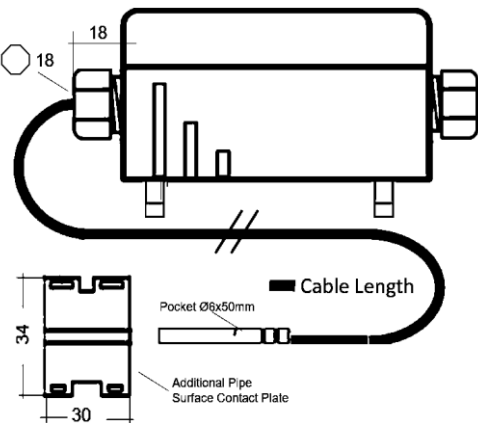

<b>Use</b>	<p>Compatible to all common HVAC DDC and Analog Controls systems, with/without Building Automation System</p> <p>Used in all common HVAC applications</p> <p>Used in Commercial and Industrial Buildings</p>
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<b>Features</b>	<p>Low voltage, relay switching output</p> <p>Passive Temperature sensor with Ø 6 mm pocket and attachable contact plate for pipe surface</p> <p>LEDs for status detection</p> <p>Status LEDs can be enabled / disabled</p> <p>Detection of conductive water or similar liquids</p> <p>Calibration potentiometer for the measuring sensitivity</p> <p>Professional, practical design – withstands harsh environmental conditions</p>
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Product Range	Order Code	Power Supply	Measured	Relay Switching Output	Temperature Sensor	Measuring Connection	Cable Lengths	Sensor Type	Detection Height	LEDs	Protection
	HPS2G.EA	AC/DC 24 V (±10 %)	Conductive water or similar liquids	SPDT Output Switching Load 3 A	N/A	N/A	N/A	4 Electrolytic conductance points	~5 mm	Green = No liquid Red = Liquid detected	IP54
	HPS2G.EI				PT1000 Class A	Ø 6 mm pocket with attachable pipe surface contact plate	Temperature cable = 2 m				
	HPS2G.EO				NTC10k						

All information and technical data are subject to alteration

Sensor Specification	Sensor Specification	Measured	Conductive water or similar liquids	
		Sensing Type	Electrolytical conductance measurement	
		Sensor Characteristics	Passive	
		Control Mode	Relay SPDT	
		Switching Point	Typically 15k Ω	
		Switch Type	Potential free (SPDT)	
		Passive Sensor		
		Measuring Current	<1 mA	
		PT	±0.15 °C @ 0 °C DIN EN 60751, class A	
		NTC	±0.25 °C @ 25 °C	
Measuring Range	-50 °C to +150 °C			
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 mm²	
	Mechanical Information	Cable Entry	M16 x 1.5	
		Sensing Element Position	External, bottom of the housing	
	User Interface	LED	Green = No liquid detected Red = Liquide detected	
		Potentiometer	Detection Sensibility Potentiometer	
	Color and Materials	Housing Cover	ABS, white	
		Housing Bottom	ABS, white	
		Cable Gland	M16 x 1.5 mm, white	
		Gland Rubber Seal	Transparent	
		Sensor Pocket Material / Size	SS304 / Ø 6 mm x 50 mm	
	Environmental Conditions	Pipe Surface Contact Plate Material / Size	Copper / 34 mm x 30 mm	
		Cable Material / Size	Sililcon / 2 m	
		Operation Temperature	+5 °C to +60 °C	
		Operation Humidity	< 85% RH, no condensation	
		Transport Temperature	-35 °C to +70 °C	
	Norms and Directives	Transport Humidity	< 90 % RH	
		Storage Temperature	-10 °C to +70 °C	
		Storage Humidity	< 85 % RH, no condensation	
		IP-Rating	IP54 to IEC60529	
		Safety Class	III to EN 60 730	
		Product Standard 1	Automatic electric controls for household & similar us	
		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 Environmental Conditions	IEC 60 721-3-3	
		Operation Mechanical Conditions	IEC 60 721-3-2 to class2M2	
		Transport Environmental Conditions	IEC 60 721-3-2	
		Transport Mechanical Condition	IEC 60 721-3-2 to class2M2	
	Storage Environmental Conditions	IEC 60 721-3-1		
	Storage Mechanical Conditions	IEC 60 721-3-1 to class2M2		
	Miscellaneous	Accessories	N/A	
		Shipping & Handling	Minimum Order	1 box with 2 pieces
			Package Material	Rigid Cardboard Packaging
		Order Notes	Order Code	HPS2G.EA
All information and technical data are subject to alteration				
Gruner Asia Pacific		HPS2-Series (H_lgc) V26.1		
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	<div> <div> <div>Installation Notes</div> <div>  <p>Observe the following general regulation for engineering and implementation:</p> <ul style="list-style-type: none"> <li>All relevant national and heavy power regulation</li> <li>Other country specific regulations</li> <li>Country-specific regulations</li> <li>Local electrical supply authority regulation</li> <li>Schematics, cable listings, dispositions, specification and arrangements from the customer or engineering office in charge</li> <li>Third party specifications, e.g. general contractors or constructors</li> </ul> </div> </div> </div>																					
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	<div> <div> <div>Disposal Note</div> <div>  <p>The device is considered an electronic device for disposal in terms of the EUROPEAN DIRECTIVE 2012/19/EU.</p> <p>The device may not be disposed as domestic garbage.</p> <p>The device must be disposed through channels provided for this purpose.</p> <p>It is mandatory to complying with local currently applicable laws and regulations.</p> </div> </div> </div>																					
<div>Dimensional Drawing</div>	<div> <div>    <div>  <div>Calibration potentiometer for measuring sensitivity</div> </div> <div> <div>■ Cable Length</div> <div>Pocket Ø6x50mm</div> <div>Additional Pipe Surface Contact Plate</div> </div> </div> </div>																					
<div>Connection</div>	<table> <tr> <th colspan="2">Power Supply</th> <th colspan="3">Relay</th> <th colspan="2">Passive Temperature Sensor</th> </tr> <tr> <th>S1</th> <th>S2</th> <th>S3</th> <th>S4</th> <th>S5</th> <th>S6</th> <th>S7</th> </tr> <tr> <td>GND</td> <td>AC/DC 24 V</td> <td>COM</td> <td>NO</td> <td>NC</td> <td>S<sup>+</sup></td> <td>S<sup>-</sup></td> </tr> </table>	Power Supply		Relay			Passive Temperature Sensor		S1	S2	S3	S4	S5	S6	S7	GND	AC/DC 24 V	COM	NO	NC	S <sup>+</sup>	S <sup>-</sup>
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