

100e	Product Information	thermokon asia pacific
TRW1- Series (T)	Room Temperature Active Sensor	

The TRW1-Series is designed to measure temperature in rooms or areas. The temperature sensor output is active. It is also available with a potentiometer for set point adjustment, rotary switch for fan stage adjustment, LED for status indication and a button for presence acknowledgement.







Use	<p>Compatible to all common HVAC DDC and Analog Controls systems, with/without Building Automation System</p> <p>Temperature measuring in rooms and areas</p> <p>Used in all common HVAC applications</p> <p>Used in Commercial and Industrial Buildings</p>
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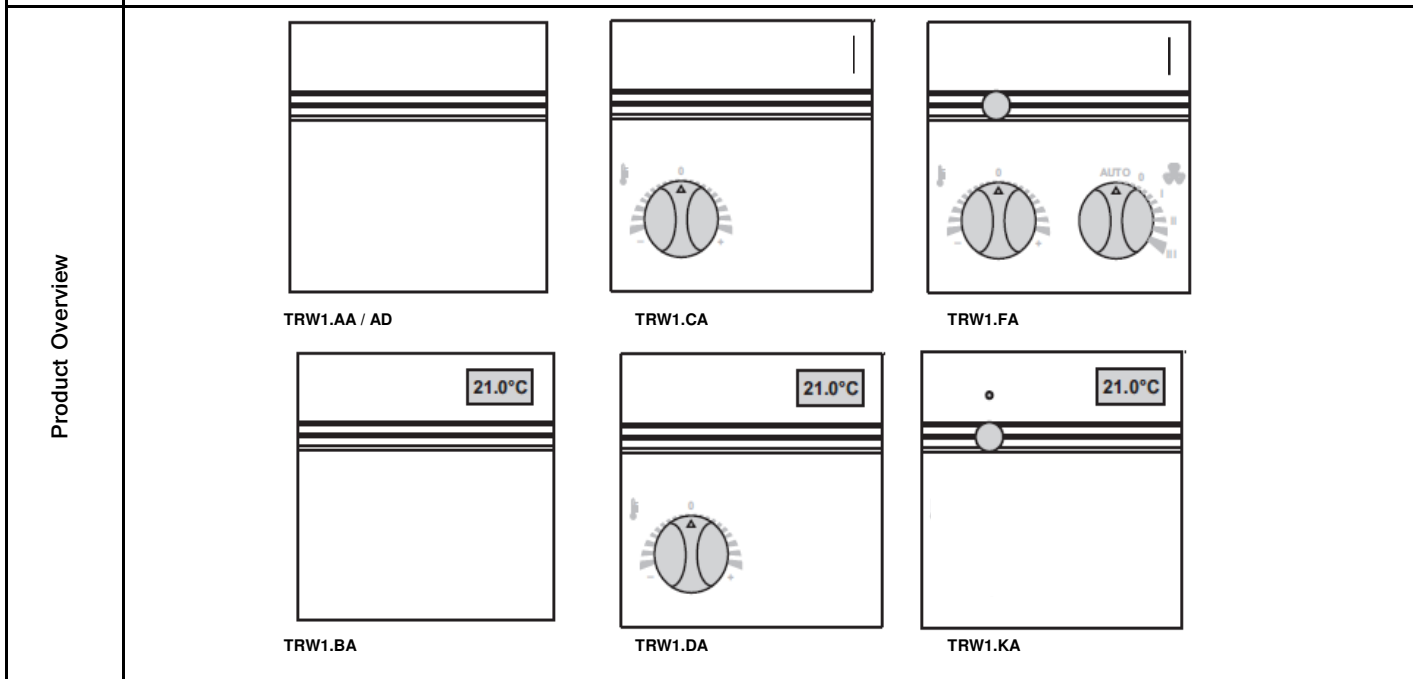
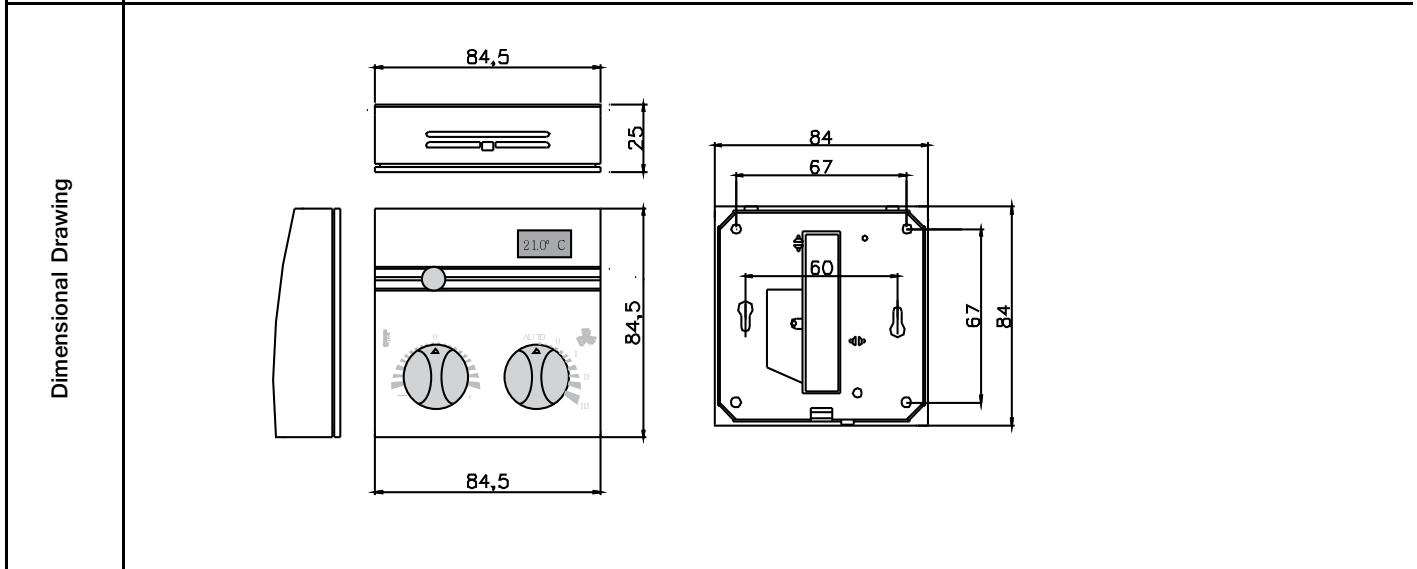
Features	<p>Sensor with active output</p> <p>Optional with potentiometer for set point adjustment and/or LCD display</p> <p>Optional LCD display, potentiometer for set point adjustment and presence button</p> <p>Optional potentiometer for set point adjustment, presence acknowledgement and 3-stage fan switch</p> <p>Easy to use, install and maintain</p>
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Product Range	<table border="1"> <thead> <tr> <th rowspan="2">Model</th> <th colspan="5">Operating Element</th> <th colspan="2">Sensor Output</th> </tr> <tr> <th>Set point adjustment</th> <th>Fan stage adjustment</th> <th>Presence detection</th> <th>Status response</th> <th>LCD</th> <th>0...10V</th> <th>4...20mA</th> </tr> </thead> <tbody> <tr> <td>TRW1.AA</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td> </tr> <tr> <td>TRW1.BA</td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td>•</td> <td></td> </tr> <tr> <td>TRW1.CA</td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td> </tr> <tr> <td>TRW1.DA</td> <td>•</td> <td></td> <td></td> <td></td> <td>•</td> <td>•</td> <td></td> </tr> <tr> <td>TRW1.KA</td> <td></td> <td></td> <td>•</td> <td>•</td> <td>•</td> <td>•</td> <td></td> </tr> <tr> <td>TRW1.FA</td> <td>•</td> <td>•</td> <td></td> <td>•</td> <td></td> <td>•</td> <td></td> </tr> <tr> <td>TRW1.AD</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>•</td> </tr> </tbody> </table>	Model	Operating Element					Sensor Output		Set point adjustment	Fan stage adjustment	Presence detection	Status response	LCD	0...10V	4...20mA	TRW1.AA						•		TRW1.BA					•	•		TRW1.CA	•					•		TRW1.DA	•				•	•		TRW1.KA			•	•	•	•		TRW1.FA	•	•		•		•		TRW1.AD							•
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Sensor Specification	Sensor Specification	<p>Measured</p> <p>Sensor Characteristics</p> <p>Sensor Output (s)</p> <p>Output Load</p> <p style="padding-left: 20px;">Type TRW1.AA/BA/CA/DA/FA/KA</p> <p style="padding-left: 20px;">Type TRW1.AD</p> <p>Accuracy</p> <p>Measuring Range (s)</p> <p>Optional Measuring Range (s)</p> <p style="padding-left: 20px;">Type TRW1.AA/AD</p> <p style="padding-left: 20px;">Type TRW1.BA /CA/DA/FA/KA</p>	<p>Temperature</p> <p>Active</p> <p>See Product Range, Page 1</p> <p>Min. load 5kΩ @ AC/DC 24V</p> <p>Max. load 700Ω @ DC 24V</p> <p>± 0.5K over full measuring range</p> <p>0°C...+50°C</p> <p>-15°C...+35°C; 0°C...150°C</p> <p>-50°C...+50°C, -15°C...+50°C</p>										
Technical Information	<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 style="padding-left: 20px;">Type TRW1.AA/BA/CA/DA/FA/KA</p> <p style="padding-left: 20px;">Type TRW1.AD</p> <p>Frequency</p> <p>Terminal Clamp</p> <p>Power Consumption</p> <p style="padding-left: 20px;">Type TRW1.AA/CA/FA</p> <p style="padding-left: 20px;">Type TRW1.AD</p> <p style="padding-left: 20px;">Type TRW1.BA/DA/KA</p> <p>Cable Entry</p> <p>Sensing Element Position</p> <p>Set Point Adjustments</p> <p style="padding-left: 20px;">Type TRW1.CA</p> <p style="padding-left: 20px;">Type TRW1.DA/FA</p> <p>Set Point Symbols</p> <p>Presence Button</p> <p>Presence LED</p> <p>Fan Switch</p> <p>Fan Switch Symbols</p> <p>Display</p> <p>Housing Cover</p> <p>Housing Bottom</p> <p>User Element</p> <p>Indication Light</p> <p>Display</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>Screw terminal, max. 1.5mm²</p> <p>≤ 0.4W / AC 24V; ≤ 0.85VA / DC 24V</p> <p>≤ 20mA / DC 24V</p> <p>≤ 0.6W / AC 24V; ≤ 1VA / DC 24V</p> <p>~30mm x 10mm on the backside</p> <p>Inside the housing, top of the housing</p> <p>R= 10kΩ, max 0.25W</p> <p>DC 0...10V / 0.5A</p> <p>- o +</p> <p>NC contact, max 600mW</p> <p>Present = Green LED illuminated</p> <p>4 stages, max 5VA</p> <p>0 I II III</p> <p>Room Temperature</p> <p>White ASA, RAL 9010 (Pure White)</p> <p>White ASA, RAL 9010 (Pure White)</p> <p>White ASA, RAL 9010 (Pure White)</p> <p>Green LED, RAL 6024 (Traffic Green)</p> <p>Liquid Display, Black & White</p> <p>0°C...+50°C</p> <p><85 % r.h., no condensation</p> <p>-35°C...+70°C</p> <p>< 90% r.h.</p> <p>-10°C...+70°C</p> <p>< 85% r.h., no condensation</p> <p>IP30 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>										
Connection	Terminal Connection	<table border="1" style="display: inline-table; margin-right: 20px;"> <tr><td>1</td><td>2</td><td>3</td></tr> <tr><td>Out Temp 0 ...10V</td><td>24V AC/DC</td><td>GND</td></tr> </table> <p style="text-align: center; margin-left: 20px;">TRW1.AA/BA/CA/DA/FA/KA</p> <table border="1" style="display: inline-table;"> <tr><td>1</td><td>2</td></tr> <tr><td>24V DC</td><td>Out Temp 4... 20mA /GND</td></tr> </table> <p style="text-align: center; margin-left: 20px;">TRW1.AD</p>	1	2	3	Out Temp 0 ...10V	24V AC/DC	GND	1	2	24V DC	Out Temp 4... 20mA /GND	
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Miscellanies	<p>Accessories</p> <p>Shipping & Handling</p> <p>Order Notes</p>	<p>Accessory not included in delivery</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>Rigid Cardboards Packaging</p> <p>Order Code</p>	<p>TRA0.A (106mmx106mm backplate)</p> <p>1 box with 1 piece</p> <p>84.5mm x 84.5mm x 25mm / 66gr.</p> <p>90mm x 90mm x 35mm / 82gr.</p> <p>Rigid Cardboards Packaging</p> <p>See Product Range, Page 1, e.g. TRW1.AA</p>										

All information and technical data are subject to alteration

Advises	<p>Security Advice</p>  <p>The installation and assembly of electrical equipment may only be performed by a skilled electrician.</p> <p>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.</p>
	<p>Mounting Advices</p>  <p>Mounted with screws and wall plugs onto a smooth wall surface.</p> <p>For wiring, the snap-on lid must be separated from the base plate.</p> <p>Make sure the flush socket is completely closed at the wall side, the circulation of air may take place through the gaps in the cover.</p> <p>The sensor should not be covered by curtains, doors or furniture.</p>
	<p>Installation Notes</p>  <p>The product must be installed at a suitable place and within the range of validity of the local electrical installation laws and regulations.</p> <p>Installation place must be made on representative places for the room temperature, next to doors (occurring draught) or windows (colder outside wall) should be avoided.</p> <p>Solar radiation and draught should be avoided.</p> <p>The end of the installation tube in the flush box must be sealed.</p> <p>Due to the self-heating, the wire current should not exceed 1mA.</p>
	<p>Commissioning Notes</p>  <p>Sensing devices should in principle be operated in the middle of the measuring range.</p>



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