

**SM-TUU2-Series**

Universal Temperature Passive Sensor

**Features**

- Sensor with passive output
- Different pocket and cable lengths for all common HVAC applications
- High performance, silicon cables
- Professional and practical product design, withstands rough environmental conditions
- Easy to use, install and maintain
- Compatible to all common HVAC DDC and Analog Controls systems, with/without Building Automation System
- Universal temperature measurement in air and water applications
- Used in Commercial and Industrial Buildings



**Use**

The SM-TUU2-Series is designed to measure temperature for universal use. The sensor can be used for air temperature or water temperature measurements. The sensor output is passive.

**Product Range**

Model	Sensor Output						Cable Length		Pocket Length			Pocket Diameter	
	PT100	PT1000	NTC10k	NTC10k Pre	NTC20k	Ni1000	1000mm	2000mm	50mm	150mm	200mm	4mm	6mm
TUU2.AF	•						•		•				•
TUU2.AG		•					•		•				•
TUU2.AP			•				•		•				•
TUU2.AQ				•			•		•				•
TUU2.AR					•		•		•				•
TUU2.AK						•	•		•				•
TUU2.BF	•							•	•				•
TUU2.BG		•						•	•				•
TUU2.BP			•					•	•				•
TUU2.BQ				•				•	•				•
TUU2.BR					•			•	•				•
TUU2.BK						•		•	•				•
TUU2.CF	•						•			•			•
TUU2.CG		•					•			•			•
TUU2.CP			•				•			•			•
TUU2.CQ				•			•			•			•
TUU2.CR					•		•			•			•
TUU2.CK						•	•			•			•
TUU2.DF	•							•		•			•
TUU2.DG		•						•		•			•
TUU2.DP			•					•		•			•
TUU2.DQ				•				•		•			•
TUU2.DR					•			•		•			•
TUU2.DK						•		•		•			•
TUU2.ÖG		•						•			•	•	•

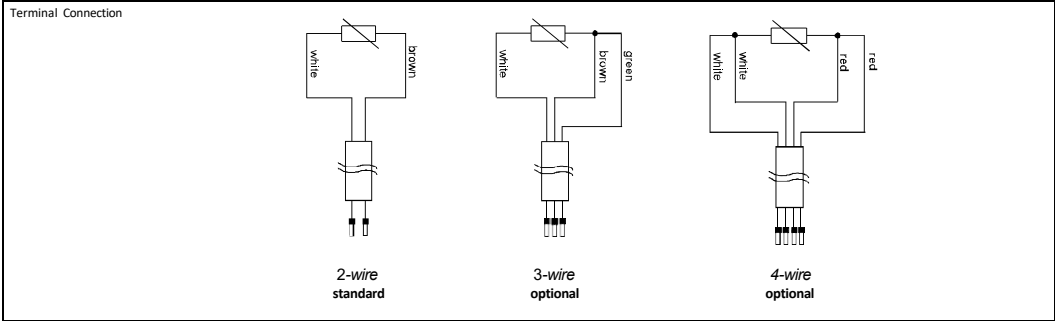
## Sensor Specification

Sensor Specification	Measured	Temperature
	Sensor Characteristics	Passive
	Sensor Output (s)	See Product Range, Page 1
	Measuring Current	<1mA
	Accuracy	
	Type TUU2.AF/AG/BF/BG/CF/CG/DF/DG	± 0.3K @ 0°C DIN EN 60751, class B
	Type TUU2.AP/AQ/AR/BP/BQ/BR/CP/CQ/CR/DP/DQ/DR	± 0.5K @ 0°C
	Type TUU2.AK/BK/CK/DK	± 0.4K @ 0°C DIN EN 43760, class B
	Measuring Range (s)	-40°C... +150°C

## Technical Information

Electrical Information	None	
Mechanical Information	Sensor Pocket Diameter	Ø6mm
	Sensor Pocket Length	See Product Range, Page 1
	Cable Length	See Product Range, Page 1
	Cable Lead Diameter	Ø6mm
	Cable Diameter	4mm
	Sensing Element Position	Top of the sensor pocket
User Interface	None	
Color and Materials	Sensor Pocket	US:AISI 304; EU: EN X 6 CrNi 18 10; GER: W.N.
	Cable	Red Silicon, RAL 3001 (Signal Red)
Environmental Condition	Operation Temperature	-25°C...+100°C
	Operation Humidity	100% r.h., with condensation
	Transport Temperature	-35°C...+70°C
	Transport Humidity	< 90% r.h.
	Storage Temperature	-10°C...+70°C
	Storage Humidity	< 85% r.h., no condensation
Norms and Directives	IP- Rating	IP65 to IEC60529
	Safety Class	III to EN 60 730
	Product Standard 1	Automatic Electric. Controls for household and similar use
	RoHS Compatibility S	RoHS 2011/65/EC
	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

**Connection**



**Miscellanies**

Accessories	None	None
Shipping & Handling	Minimum Order	1 box with 10 pieces
	Product Dimension (L x W x H) / ~Weight	6mm x 6mm x 1000 mm / 30gr. 1m cable
	Transport and Storage dimension (L x W x H) / ~Weight	6mm x 6mm x 2000 mm / 55gr. 2m cable
	Package Material	160mm x 130mm x 75mm / 365gr. 1m cable 160mm x 130mm x 75mm / 615gr. 2m cable
Order Notes	Order Code	Rigid Cardboards Packaging See Product Range, Page 1, e.g. TUU2.AF

**Advices**

<p><b>Security Advice</b></p> <p>Caution</p>	<p>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.</p>
<p><b>Mounting Advices</b></p> <p>Caution</p>	<p>The sensor can be used to immerse into an air duct using a mounting flange. When using the sensor in moist rooms or spaces, we recommend to use version IP67/68 sensors.</p>
<p><b>Installation Notes</b></p> <p>Caution</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. Due to the self-heating, the wire current should not exceed 1mA.</p>
<p><b>Commissioning Notes</b></p> <p>Caution</p>	<p>Sensing devices with transducers should in principle be operated in the middle of the measuring range. The ambient temperature of the transducer electronics should be kept constant.</p>

Dimensional Drawing

