650e Product Information TUU2- Series (T) Universal Temperature Passive Sensor



The 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.



Use

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 all common HVAC applications

Used in Commercial and Industrial Buildings

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

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	Sensor Output					Cable	Length	Pocket Length		ket neter	
Model	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.OG		•						•	•	•	•

Sensor Specification	Measured Sensor Characteristics Sensor Output (s) Measuring Current Accuracy Type TUU2.AF/AG/BF/BG/CF/CG/DF/DG Type TUU2.AP/AQ/AR/BP/BQ/BR/CP/CQ/CR/DP/DQ/DR	Temperature Passive See Product Range, Page 1 <1mA ± 0.3K @ 0°C DIN EN 60751, class B	
	Sensor Output (s) Measuring Current Accuracy Type TUU2.AF/AG/BF/BG/CF/CG/DF/DG	See Product Range, Page 1 <1mA	
	Measuring Current Accuracy Type TUU2.AF/AG/BF/BG/CF/CG/DF/DG	<1mA	
	Accuracy Type TUU2.AF/AG/BF/BG/CF/CG/DF/DG		
	Type TUU2.AF/AG/BF/BG/CF/CG/DF/DG	± 0.3K @ 0°C DIN EN 60751, class B	
	•	± 0.3K @ 0 C DIN EN 60751, class B	
	Type Touz.AP/AQ/AR/BP/BQ/BR/CP/CQ/CR/DP/DQ/DR	± 0.5K @ 0°C	
	Time TIME AK (DK (OK (DK		
	Type TUU2.AK/BK/CK/DK	± 0.4K @ 0°C DIN EN 43760, class B	
E1	Measuring Range (s)	-40°C+150°C	
Electrical Information	None	a.	
Mechanical Information	Sensor Pocket Diameter	Ø6mm	
	Sensor Pocket Length	See Product Range, Page 1	
		See Product Range, Page 1	
		Ø0.25mm	
		4mm	
	Sensing Element Position	Top of the sensor pocket	
User Interface			
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 Conditior	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		IP65 to IEC60529	
	•	III to EN 60 730	
	•	Automatic Electric. Controls for household and similar use	
		RoHS 2011/65/EC	
		IEC 60 721-3-3	
	•	IEC 60 721-3-2 to class2M2	
	•	IEC 60 721-3-2	
		IEC 60 721-3-2 to class2M2	
		IEC 60 721-3-1	
	•	IEC 60 721-3-1 IEC 60 721-3-1 to class2M2	
Terminal Connection	Storage Mechanical Condition	IEC 60 721-3-1 to Classziviz	
Terrimar Connection			
	Sensor Sensor		
	white white brown		
	t t title til		
	2-wire 3-wire 4-wire		
	standard optional optional		
Accessories	None		
-			
Shipping & Handling		1 box with 10 pieces	
	Product Dimension (L x W x H) / ~Weight	6mm x 6mm x 1000 mm / 30gr. 1m cable	
		6mm x 6mm x 2000 mm / 55gr. 2m cable	
	Transport and Storage dimension (L x W x H) $/$ ~Weight	160mm x 130mm x 75mm / 365gr. 1m cable	
		160mm x 130mm x 75mm / 615gr. 2m cable	
	Package Material	Rigid Cardboards Packaging	
Order Notes	Order Code	See Product Range, Page 1, e.g. TUU2.AF	
C E - S	Environmental Condition Norms and Directives Terminal Connection Accessories Shipping & Handling	Cable Length Cable Lead Diameter Cable Diameter Sensing Element Position None Color and Materials Sensor Pocket Cable Environmental Conditior Operation Temperature Operation Humidity Transport Temperature Transport Humidity Storage Temperature Storage Humidity IP- Rating Safety Class Product Standard 1 RoHS Compatibility Operation Climatic Condition Operation Mechanical Condition Transport Mechanical Condition Transport Mechanical Condition Storage Climatic Condition Storage Climatic Condition Storage Mechanical Condition Terminal Connection Accessories None Minimum Order Product Dimension (L x W x H) / ~Weight Transport and Storage dimension (L x W x H) / ~Weight Package Material	

	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	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.
Advices	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. Due to the self-heating, the wire current should not exceed 1mA.
	Commissioning Notes	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.
Dimensional Drawing		Detail "Y" Detail