



DS350en

Data Sheet



TPS2-Series (T)

Pipe Surface Temperature Sensor with Passive Output

The TPS2-Series (T) is designed to measure temperature on pipe surfaces

The Surface sensor is suitable for waterpipe up to DN80

Several cable lengths are available

The sensor output is passive



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

Sensor with passive output

All Sensors with outstanding accuracy

Different cable lengths are available

High performance, silicon cables

Professional and practical product design, withstands rough environmental conditions

Product Range

Order Code	Sensor Output*	Sensor Accuracy	Cable Lengths	Sensor Housing	Measuring Range	Protection	Cable Temperature Rating
TPS2.BG	PT1000	$\pm 0.15 \text{ }^\circ\text{C}$ @ $0 \text{ }^\circ\text{C}$ DIN EN 60751, class A	2 m Cable	Copper plate 30 mm x 34 mm, R = 23 mm	$-50 \text{ }^\circ\text{C}$ to $+150 \text{ }^\circ\text{C}$	IP65 to IEC60529	$-60 \text{ }^\circ\text{C}$ to $+200 \text{ }^\circ\text{C}$
TPS2.BP	NTC10K	$\pm 0.25 \text{ }^\circ\text{C}$ @ $25 \text{ }^\circ\text{C}$					

*Other Sensors are available. Contact your Sales Manager for more information

Sensor Specification	Sensor Specification	Measured	Temperature
		Sensor Characteristics	Passive
		Sensor Output (s)	PT, NTC
		Measuring Current	<1 mA
		Accuracy	
		PT	±0.15 °C @ 0 °C DIN EN 60751, class A
		NTC	±0.25 °C @ 25 °C
	Measuring Range (s)	-50 °C to +150 °C	
Technical Information	Electrical Information	N/A	
		Dielectric Resistant	1750 V for 90 s
		Core Wire Resistance	<95 Ω/km @ 20 °C
	Mechanical Information	Spark Test	3000 V for 0.15 s
		Cable Jacket Diameter	Ø4.60 mm ±0.10 mm
		Cable Jacket Thickness	1.30 mm ±0.10 mm
		Core wire Diameter	0.51 mm ² (AWG23)
		Core wire Thickness	0.115 mm ±0.5 mm
		Core wire Construction	Stranded, 7 / ø0.20 mm ±0.005 mm
		Temperature Rating	-60 °C to +200 °C
		Sensing Element Position	Top of the sensor pocket
	Materials and Colours	Sensor Pocket	US:AISI 304; EU: EN X 6 CrNi 18 10; GER: W.N. 1.301
		Sensor Pocket Shield	Copper
		Cable Jacket Color	RAL3001 (Signal Red)
		Core Wire Material	Silicon
		Core Wire Color	Brown, White
	Environmental Conditions	Operation Temperature	-25 °C to +70 °C
		Operation Humidity	100 % RH, with condensation
		Transport Temperature	-35 °C to +70 °C
		Transport Humidity	<90 % RH
		Storage Temperature	-10 °C to +70 °C
		Storage Humidity	<85 % RH, no condensation
	Norms and Directives	IP-Rating	IP65 to IEC60529
		REACH Regulation	Regulation (EC) No. 1907/2006
		Product Safety	Safety class III, in accordance with EN IEC 60730-1
		Product Standard	Automatic electrical controls for household and similar use in accordance with EN IEC 60730-1:2022
		CE Compliance	IEC/EN60730-1
		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	Accessory included in delivery
	Shipping & Handling	Minimum Order	1 box with 10 pieces
		Package Material	Rigid cardboard packaging
	Order Notes	Order Code	See product range, e.g. TPS2G.BG

All Information and technical data are subject to alteration

TPS2- Series (T) V26.1

Installation Notes

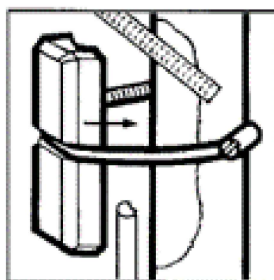
Observe the following general regulation for engineering and installation:



- All relevant national and local electrical installation codes
- Other country-specific regulations
- Comply with all local safety regulations, schematics, cable listings, dispositions, specifications, and arrangements from the engineering office in charge
- Third-party specifications, e.g., general contractors' or constructors' notes

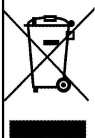
Advices

Mounting Advices



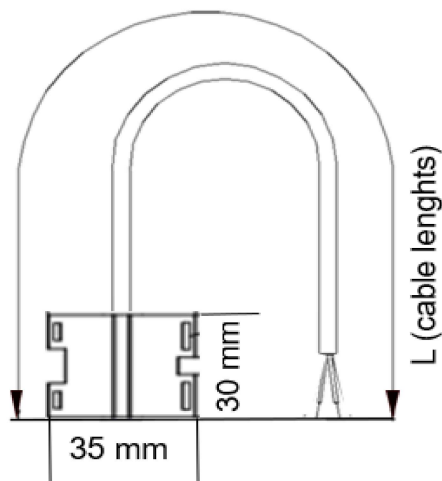
Disposal Notes

The device is considered an electronic device for disposal in terms of the European Directive 2012/19/EU

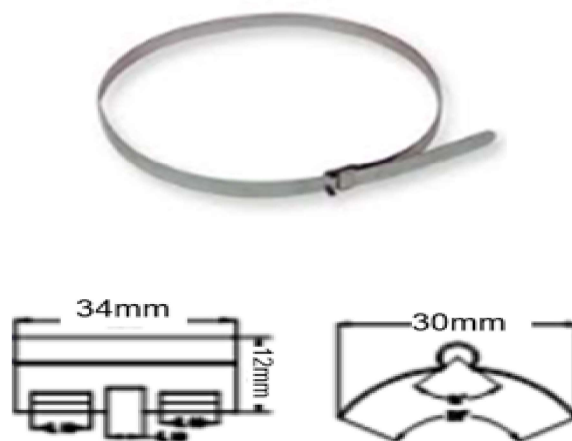


- The device may not be disposed as domestic garbage
- The device must be disposed through channels provided for this purpose
- It is mandatory to comply with local currently applying laws and regulations

Dimensional Drawing



Fastener Strap L = 240 mm



Connection

