TI385en	Technical Information	thermokon asia pacific
TPI2- Series (T)	Pipe Temperature Sensor	
	with Passive Output	

The TPI2- Series (T) is designed to measure temperature directly, without thermowell, in water pipes

The sensor, with narrowed sensor tip, is especially well suited if a fast response

of temperature changes are required

Several length are available to cover all common duct sizes

The temperature sensor output is passive

Use

Compatible to all common HVAC DDC and Analog Controls systems, with/without Building Automation System

Temperature measuring in water pipes (without accessory)

Used in heating or cooling applications with fast response time

Temperature measuring in water pipes (without accessory)

Used in HVAC and Industrial Applications

Features

Active Sensor with narrowed sensor tip for fast response of temperature changes

Different immersion length for all common water pipe sizes

Professional and practical product design, withstands rough environmental conditions

Easy to use, install and maintain

Product Range

Type Code	Sensor	Immersion Pocket					Housing
	Outputs	Length	Diameter	TIP size	max. Pressure	max. flow	Protection
TPI2.AF	PT100	50mm	ø4mm	n/a	PN40	16m/s	IP65 to IEC60529
TPI2.AG	PT1000						
TPI2.AP	NTC10k						
TPI2.AQ	NTC10k Pre						
TPI2.AR	NTC20k						
TPI2.AK	NI1000						
TPI2.GF	PT100	100mm	ø6mm	ø4x20mm		10m/s	
TPI2.GG	PT1000						
TPI2.GP	NTC10k						
TPI2.GQ	NTC10k Pre						
TPI2.GR	NTC20k						
TPI2.GK	NI1000						
TPI2.BF	PT100	150mm				8m/s	
TPI2.BG	PT1000						
TPI2.BP	NTC10k						
TPI2.BQ	NTC10k Pre						
TPI2.BR	NTC20k						
TPI2.BK	NI1000						
TPI2.CF	PT100	200mm				8m/s	
TPI2.CG	PT1000						
TPI2.CP	NTC10k						
TPI2.CQ	NTC10k Pre						
TPI2.CR	NTC20k						
TPI2.CK	NI1000						

Sensor Specifications	Sensor Specification	Measured	Temperature
		Sensor Characteristics	Passive
		Sensor Output (s)	See Product Range, Page 1
		Measuring Current	<1mA
		Accuracy	
		Sensor PT100 / PT1000	± 0.3K @ 0ºC DIN EN 60751, class B
		Sensor NTC	± 0.5K @ 25ºC
		Sensor NI1000	± 0.4K @ 0ºC DIN EN 43760, class B
		Standard Measuring Range	0ºC…+100ºC
		Total Measuring Range	-50ºC…+150ºC
Technical Information	Electrical Information	Terminal Clamp	Screw terminal, max. 1.5mm²
	Mechanical Information	Immersion Rod Diameter	See Product Range, Page 1
		Sensor TIP Lengths & Diameter	See Product Range, Page 1
		Cable Entry	M16, Ø6...Ø8mm cables
		Sensing Element Posit	external, top of the immersion rod
	User Interface	None	
	Color and Materials	Housing Cover	White ABS, RAL9001 (Cream White)
		Housing Botton	White ABS, RAL9001 (Cream White)
		Lock Screws	US:AISI 304; EU: EN X 6 CrNi 18 10; GER: W.N. 1.301
		Lock Nuts	Brass
		Cable Gland	Red ABS, RAL2002 (Vermilion)
		Gland Rubber Seal	White TBS, RAL9010 (Pure White)
		Protection Caps	Red ABS, RAL2002 (Vermilion)
		Immersion Rod	US:AISI 304; EU: EN X 6 CrNi 18 10; GER: W.N. 1.301
		Cable	TPE (black)
	Environmental Conditic	Operation Temperature	-25ºC...+70ºC
		Operation Humidity	100% r.h., with condensation
		Transport Temperature	-35ºC...+70ºC
		Transport Humidity	< 90% r.h.
		Storage Temperature	-10ºC...+70ºC
		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	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	Mounting Kit, Included in delivery	UUK0.A
	Shipping & Handling	Minimum Order	1 box with 2 pieces, multiple of 2 pieces
		Package Material	Rigid Cardboards Packaging
		Order Code	See Product Range, Page 1, e.g. TPI2.AF

Advices

Installation Notes

Caution

Observe the following general regulation for engineering and implementation:

All relevant national and heavy power regulation

Other country specific regulations

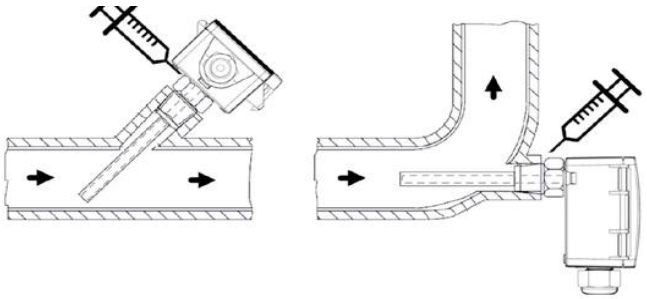
Country-specific regulations

Local electrical supply authority regulation

Schematics, cable listings, dispositions, specification and arrangements from the customer or engineering office in charge

Third party specifications, e.g. general contractors or constructors

Mounting Advices



Caution

Disposal Notes

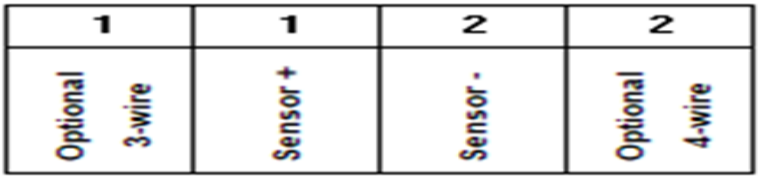
The device is considered an electronic device for disposal in terms of the EUROPEAN DIRECTIVE 2012/19/EU.

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.

Connections



3- wire connection	2- wire connection	4- wire connection
optional	standard	optional

Dimensional Drawing