

DataSheet

Thermocouple Temperature Sensor **TT10 Series**

Introduction

TT10 equips with a thermocouple probe, the measuring is based on the principle that when two dissimilar metals are joined a predictable voltage will be generated that relates to the difference in temperature between the measuring junction and the reference junction (connection to the measuring device). Standard thermocouple types include J, K, T and S, others are available for customization.

Characteristics

- **Easy to install**
- **Multiple measuring range selectable**
- **Various probes selectable to meet different applications requirements**
- **Stainless steel housing, rugged compact design**
- **Be able to work with other meters and controls**



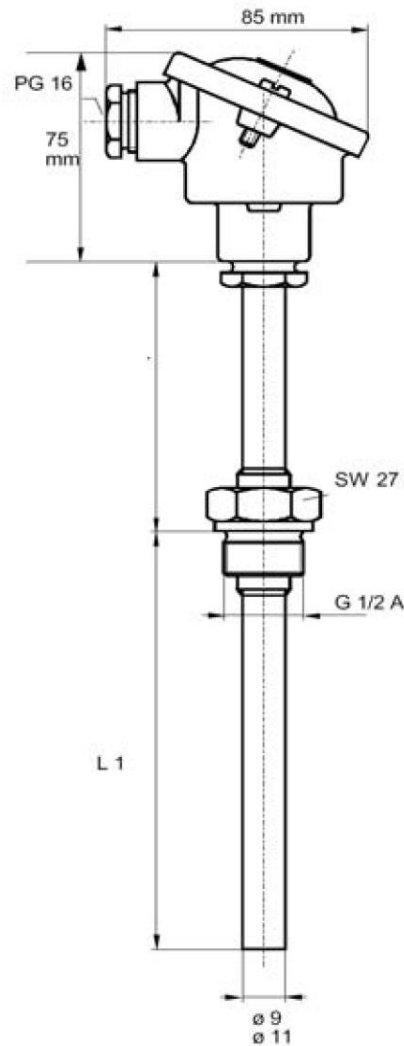
Applications

- For both liquid and gas.
- Water distribution system.
- Hydraulic and pneumatic system.
- Cooling and heating system.
- Air-conditioning
- Automation process.

Specifications

Sensor:	Thermocouple type: K, J, T, S (Others customizable)
Measuring range:	0...1300°C (type S)
	0...800°C (type K)
	0...750°C (type J)
	0...350°C (type T)
Accuracy level:	2% (1% optional)
Pressure rating:	40 bar
Housing material:	Stainless steel
Wetted parts material:	Stainless steel
Electrical connection:	Terminals
Protection class:	IP65

Dimensions in mm



See order code for details of A and L

Order code

TT10-	/0-800	/9	/250	/H	Description
TT10-					Thermocouple temperature sensor
	/ 0-1300				Measuring range: 0...1300°C
	/ 0-800				Measuring range: 0...800°C
	/ 0-750				Measuring range: 0...750°C
	/ 0-350				Measuring range: 0...350°C
		/ 9			Probe diameter: Ø9
		/ 11			Probe diameter: Ø11
			/ 160		Probe length L: 160mm
			/ 250		Probe length L: 250mm
			/ 400		Probe length L: 400mm
				H	Process connection: male thread

Accessory - DD001 Digital display

Works with TT10 series thermocouple temperature sensor for temperature display and control, as well as send switching output alerting based on calibrated temperature.



DD001 Characteristics

- 4-digit LED display.
- Input: J, K, S, T, E, B, R, N, C, DIN-PT100 JIE-PT100, 4~20mA, 0~50mV, 1~5V, 0~10V
- Control: P controller: 0.0~300.0% F.S
 PD controller: Proportional band 0.0~300.0% F.S
 Derivative Controller: 0~900 sec
 ON / OFF controller: Hysteresis control: 0~2000
- Sampling period: 0.5 s
- Operating temperature: 0...50°C
- Humidity: 90%.

DD001 Order code

DD001-	A	L	M	C1	R4	T	Description
DD001-							Digital display controller DD001
	A						Dimensions: 96x96(Square type)
	B						Dimensions: 96x48(Horizontal type)
		L					Input: linear signal
		P					Input: thermistor
		T					Input: thermocouple
			M				Primary output: 4...20mA
			S				Primary output: Solid-State Relays (SSRs)
				O			No secondary output
				C1			Secondary output: 1 relay alerting
				C2			Secondary output: 2 relay alerting
				C3			Secondary output: 3 relay alerting
					O		No communication interface
					R2		Communication interface: RS232
					R4		Communication interface: RS485
						D	Power supply: DC 24±10%
						T	Power supply: AC 90...260V

Double check follows before ordering:

1. The selected model works with your application.
2. Measuring range.
3. Output type.
4. Optional parts or accessories.