

TE10 Series Temperature Sensors

General

The remote temperature sensors are primarily used to transmit the measured air temperature in room, in ducts or in immersion wells to Mega Controls various digital, electronic or networking thermostats and controllers or any devices which require remote or cooling/heating changeover sensing.

Mounting

The duct sensor is position sensitive. It only senses the temperature at the place where it is installed. Therefore, in order to achieve a good temperature control, it is extremely important to choose an ideal place for installing the sensor.



Specifications

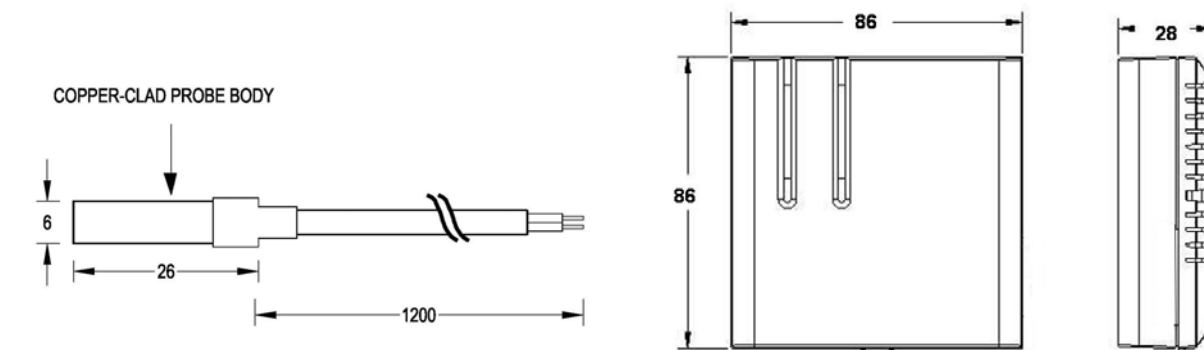
Model Numbers	TE10-1	Probe temperature sensor
	TE10-2	Duct temperature sensor with electrical box
	TE10-3	Room temperature sensor
Sensing Element	NTC thermistor, 10 k Ω @25°C, Type B3435. See Table 1 for Characteristics	
Range	0-100°C	
Protection Class	IP65 for TE10-1; IP53 for TE10-2	
Wire Connections	1.2 m Pigtails for TE10-1; Screw-down Connectors for TE10-2 and TE10-3	
Maximum Length of Connecting Wires	20 m, Wire size 0.4 mm ² or 22 AWG shielded twisted pair recommended	
Ambient / Storage Temperature Limits	0 to 50 °C / -30 to 50 °C	
Agency Approval	CE Mark compliant	
Shipping Weights	0.05 kg (0.1 lb) for TE10-1; 0.17 kg (0.38 lb) for TE10-2, 0.10 kg (0.22 lb) for TE10-3	
Dimensions	See Fig. 1: Dimensions in mm	

Table 1 - Resistance versus Temperature for TE10 Series Temperature Sensors

Temperature °C	Resistance Ω	Temperature °C	Resistance Ω	Temperature °C	Resistance Ω	Temperature °C	Resistance Ω
0	27280	13	15998	26	9663	39	6050
1	26234	14	15344	27	9325	40	5827
2	25188	15	14690	28	8988	41	5629
3	24142	16	14170	29	8650	42	5438
4	23096	17	13650	30	8313	43	5255
5	22050	18	13130	31	8038	44	5080
6	21232	19	12610	32	7764	45	4911
7	20414	20	12090	33	7489	46	4749
8	19596	21	11672	34	7215	47	4593
9	18778	22	11254	35	6940	48	4443
10	17960	23	10836	36	6717	49	4299
11	17306	24	10418	37	6495	50	4160
12	16652	25	10000	38	6272		

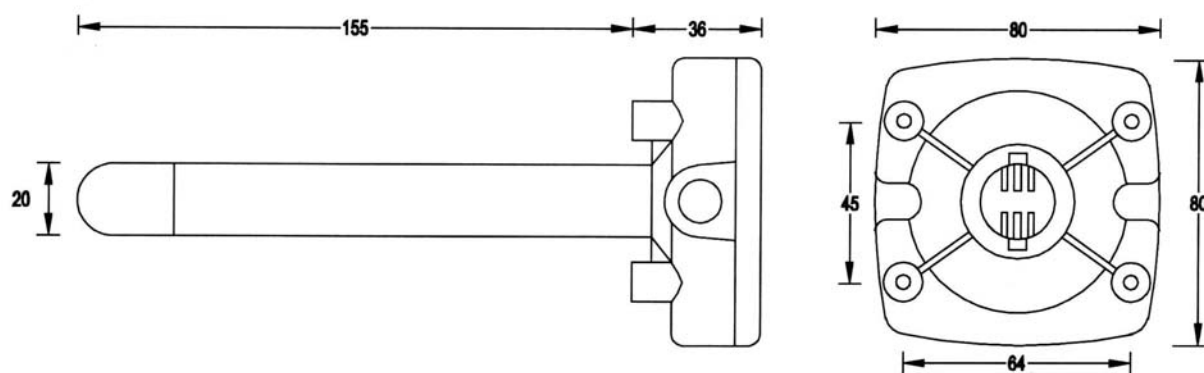
The performance specifications above are nominal and subject to tolerances and application variables of generally acceptable industry standards. Mega Controls shall not be liable for damages resulting from misapplication or misuse of its products.

Figure 1: Dimensions in mm



TE10-1 Probe Temperature Sensor

TE10-3 Room Temperature Sensor



TE10-2 Duct Temperature Sensor

Figure 2: Wiring Notes

1. 22 or 24 AWG twisted shielded pair double-insulated cable is recommended as remote sensor wiring and its length must not exceed 50 m.
2. Do not bundle and run power wiring and remote sensor wiring in the same conduit.
3. Run the remote sensor wiring away from any electric motors or power wiring. Failure to do so may result in poor thermostat performance due to electrical noise.

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