



Models

TR2500W/TR2100W/TR4100W

ROOM SENSORS

DESCRIPTION

TR2500 ROOM SENSOR

The TR2500W room sensor is a 10K @ 25°C NTC thermistor in a 117 x 76mm deep vent enclosure. The enclosure is a standard electrical wall plate mounting and has the terminal block on the rear. To ensure the sensor is not influenced by any external air movement in the wall cavity, the rear of each sensor is positively sealed.

However care should be taken when locating the temperature sensor in the room or zone to ensure a representative temperature for the area. Avoid dead air movement areas and locations where the discharge from the supply air grill blows directly on the wall sensor.

The sensor should be located on an internal wall, approximately 1500mm above the floor. Do not place the sensor above or near heat sources such as computers, printers, coffee machines, locations exposed to direct sunlight, or areas directly affected by the supply air stream. Corner locations should also be avoided because of the reduced air circulation.

TR2100 ROOM SENSOR

The TR2100W room sensor is a 2K @ 25°C NTC thermistor in a 117 x 76mm deep vent enclosure. The enclosure is a standard electrical wall plate mounting and has the terminal block on the rear. It is the same as the TR2500 above.

To average the temperature in a large zone, four TR2100 room sensors can be connected in a series/parallel connection to obtain the equivalent resistance of one sensor. With this configuration each sensor has 25% authority.

When an area requires three averaging sensors, two TR2100 room sensors are connected in series and one TR4100 room sensor is connected in parallel with the two series TR2100 sensors. Each TR2100 sensor has 25% authority while the TR4100 has 50% authority. Averaging can also be more easily achieved by using our controllers such as the TC5044 and TC6644 which can average by telling the controller how many sensors are connected.

TR4100 AVERAGING ROOM SENSOR

The TR4100W room sensor is a 4K @ 25°C NTC thermistor in a 117 x 76mm deep vent enclosure. The enclosure is a standard electrical wall plate mounting and has the terminal block on the rear. The TR4100 sensor consists of two 2K NTC thermistors connected in series.

The TR4100 room sensor is used where two areas are required to be averaged. The TR4100 room sensors are wired in parallel to obtain the average temperature of the zone. Each sensor has 50% authority.

TECHNICAL DATA

TR2500	10,000 ohms @ 25°C
TR2100	2000 ohms @ 25°C
TR4100	4000 ohms @ 25°C

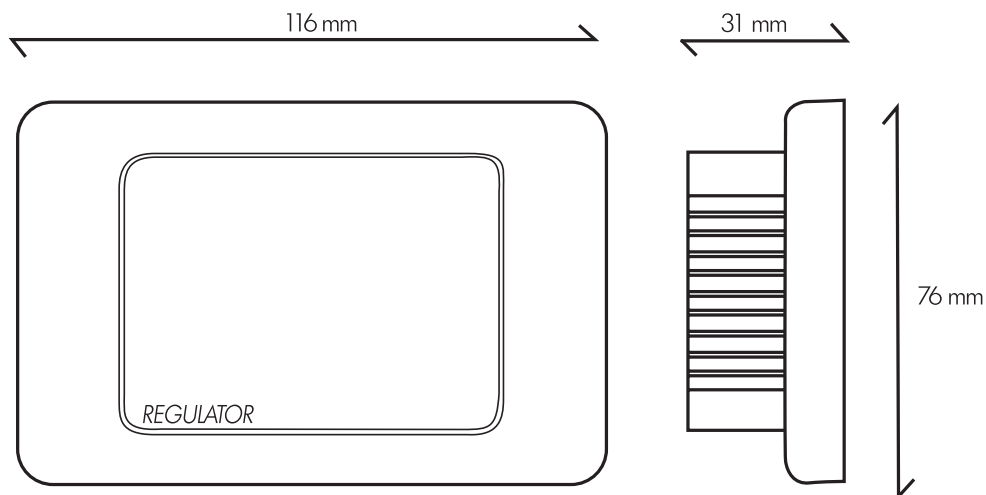
Sensor Accuracy +/- 0.3°C over 0-70°C

Maximum connection cable 1000 m with 1.0mm² Cu

Use shielded cable if run with power cables. Maximum connection length reduced to 250m.

TEMPERATURE RESISTANCE TABLES

TR2500				TR2100				TR4100			
Deg	Ohms	Deg	Ohms	Deg	Ohms	Deg	Ohms	Deg	Ohms	Deg	Ohms
15°C	15,710	23°C	10,920	15°C	2,862	23°C	2,145	15°C	5,724	23°C	4,290
16°C	15,000	24°C	10,450	16°C	2,759	24°C	2,071	16°C	5,518	24°C	4,142
17°C	14,320	25°C	10,000	17°C	2,660	25°C	2,000	17°C	5,320	25°C	4,000
18°C	13,680	26°C	9,573	18°C	2,565	26°C	1,932	18°C	5,130	26°C	3,864
19°C	13,070	27°C	9,167	19°C	2,474	27°C	1,866	19°C	4,948	27°C	3,732
20°C	12,490	28°C	8,777	20°C	2,387	28°C	1,803	20°C	4,774	28°C	3,606
21°C	11,940	29°C	8,407	21°C	2,303	29°C	1,742	21°C	4,606	29°C	3,484
22°C	11,420	30°C	8,057	22°C	2,222	30°C	1,684	22°C	4,444	30°C	3,368

DIMENSIONS

Not to scale