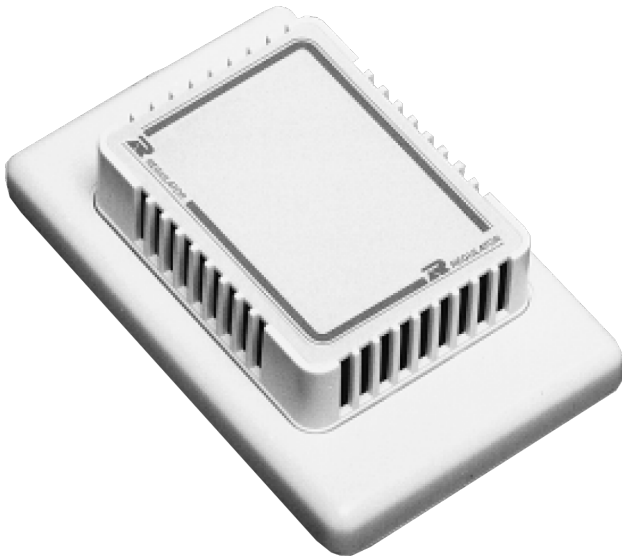




# Regulator Systems

MANUFACTURER OF AIR CONDITIONING CONTROLS AND INSTRUMENTATION

## TR2100/TR4100 ROOM SENSORS



### TECHNICAL DATA

Resistance 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 1.00mm<sup>2</sup> Cu  
 Use shielded cable if run with power cables. Maximum connection length reduced to 250m.

### TEMPERATURE RESISTANT TABLE

15° 2862 ohms	20° 2387 ohms	25° 2000 ohms
16° 2759 ohms	21° 2303 ohms	26° 1932 ohms
17° 2660 ohms	22° 2222 ohms	27° 1866 ohms
18° 2565 ohms	23° 2145 ohms	28° 1803 ohms
19° 2474 ohms	24° 2071 ohms	29° 1742 ohms

### DESCRIPTION

#### TR2100 Room Sensor

The TR2100 room sensor comprises a NTC thermistor installed in a special, vented enclosure. The enclosure fits standard electrical mounting hardware and utilises a terminal block located on the rear. To ensure the thermistor is not influenced by any extraneous thermal activity in the wall space, the rear of each sensor is positively sealed. However considerable care should be taken when determining the location of the TR2100 sensor so as to obtain a representative temperature for the room. The sensor should preferably be located on an internal wall, approximately 1500mm above the floor. Care should be taken to avoid concealed water pipes, air ducts, heat sources such as lights, computers etc, 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. To average the temperature in a large zone four TR2100 room sensors should be connected in a series/parallel arrangement to obtain the equivalent resistance of one sensor. With this configuration each sensor has 25% authority. When an area which can only accommodate three sensors requires averaging, two TR2100 room sensors connected in series should be wired in parallel with one TR4100 room sensor. Each TR2100 sensor has 25% authority while the TR4100 has 50% authority. The next averaging configuration is nine TR2100 sensors connected in a 3 x 3 arrangement.

#### TR4100 Averaging Room Sensor

The TR4100 room sensor is used where two areas are required to be averaged. The TR4100 uses two ntc thermistors connected in series and contained in the same housing as the TR2100. The TR4100 room sensors are wired in parallel to obtain the average temperature of the zone. Each sensor has 50% authority.

### DIMENSIONS

