TM-3100
Series Room Temperature Sensor

The Johnson Controls TM-3100 Series Room Temperature Sensor provide passive sensing of temperature in HVAC application.

The TM-3100 is equipped with a Pt1000 Class A sensing element and provides an output proportional signal to the measured ambient temperature.

The TM-3100 Series Room Temperature Sensor is designed for use with the Facility Explorer Series and with the Field Equipment Controller Series.

TM-3140-0000

- **Modern and attractive cover which snaps onto a plug-in mounting base**
  Blends in with room decor. Easy installation.
- **Terminals located on mounting base.**
  Easy wiring and commissioning.
- **All models available with or without Occupancy override button**
  Covers a large number of applications in public buildings and hotels

Johnson Controls

Ordering Codes

Room Temperature Sensor

Ordering Codes	Fan Speed Override	Occupancy Button	Temperature Setpoint Dial Scale	Built-in Sensing Element
TM-3140-0000	-	-	-	Pt1000

Accessories

Ordering Codes	Description
TM-1100-8931	Plastic Surface Mounting Base - White
TM-9100-8900	Special tool for opening enclosure

Installation

The TM-3100 Series Room Temperature Sensor is designed for wall mounting in the room to be controlled.

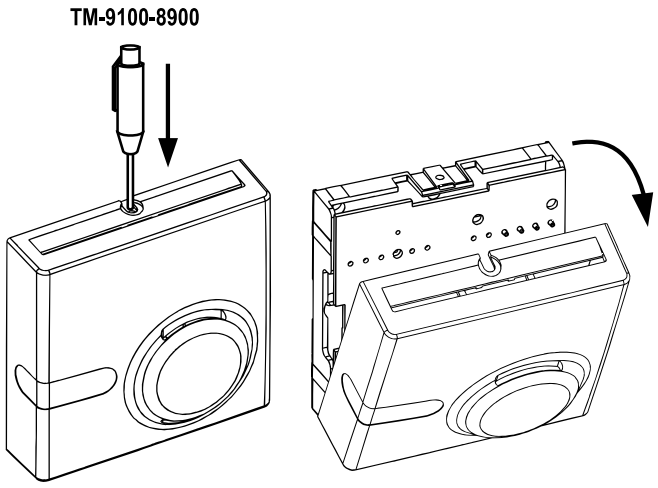
It should be placed where the temperature is representative of the general room conditions. Cold or warm air draughts, radiant heat and direct sunlight should be avoided.

The installation of electrical wiring must conform to local codes and should be carried out by authorized personnel only. Users should ensure that all Johnson Controls products are used safely and without risk to health or property.

Remove the base of the module from the cover by inserting the point of the special TM tool into the small hole at the center top of the cover. While pressing down gently, prise the base away from the cover. As the two parts separate, remove the tool and continue to pull the cover away from the base until the cover is free.

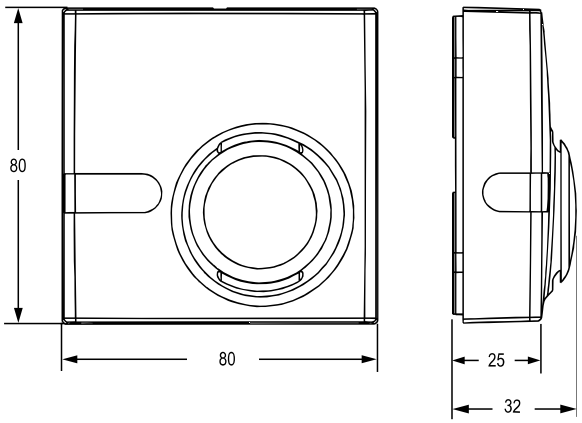
To reassemble the room command module, place the cover over the lower edge of the base and push the upper part of the cover until it “clicks” firmly in place.

Mounting



Removing cover form the base

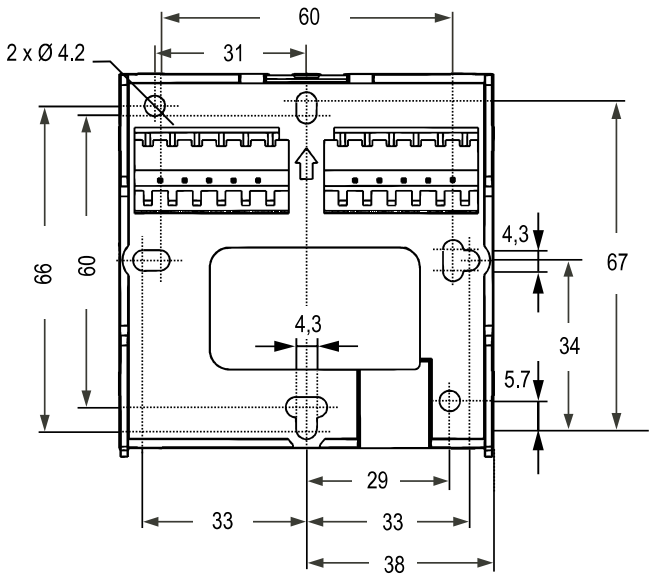
Dimensions



TM-3140-0000 dimensions *(in mm)*

Direct Surface Mounting

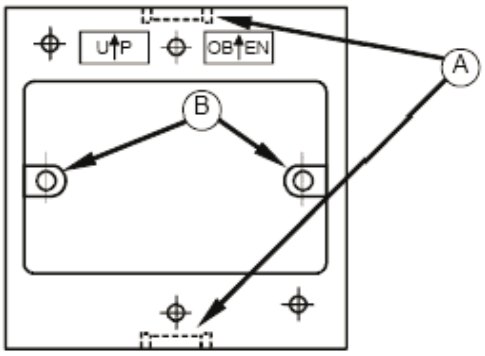
Mount the module base on the wall to cover the electrical outlet and secure with at least two screws.



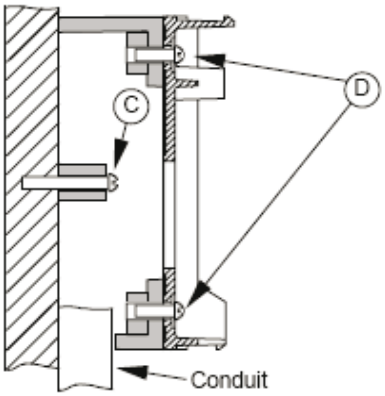
Module Base *(Dimensions in mm)*

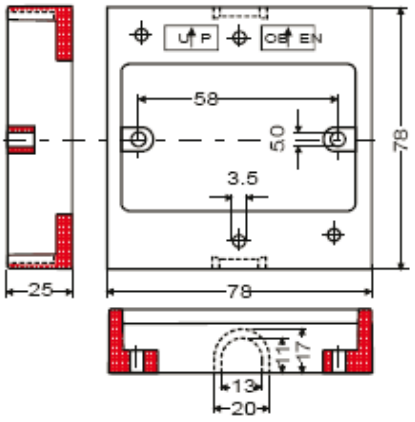
Surface Mounting with Mounting Kit (TM-1100-8931)

1. Remove one of the notches (A) with a suitable tool.
2. Mark the position of the holes (B) on the wall and drill holes 5 mm in diameter. Insert plastic plugs into holes.



3. Position and fix the mounting base to the wall using the two long screws (C) provided in the kit.
4. Fix the base of the TM-3100 to the mounting base using the two short screws (D) provided in the kit.



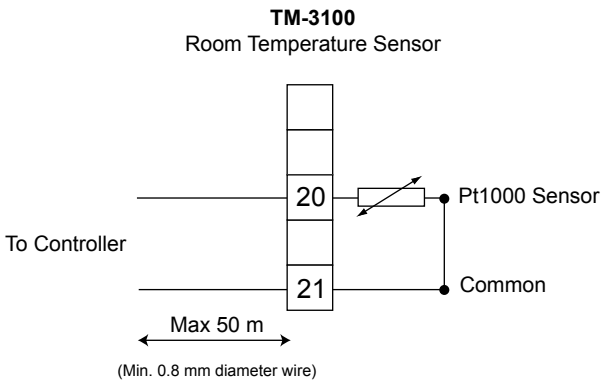


Surface Mounting Base *(Dimensions in mm)*

Wiring

Before connecting or disconnecting any wires, ensure that all power supplies have been switched off and all wires are potential-free to prevent equipment damage and avoid electrical shock. Terminations are made on the terminal blocks in the base of the module, which accept up to 1.5 mm^2 wires.

Follow the wiring diagrams shown in the figures below. All wiring to the module is at extra low (safe) voltage and must be separated from power line voltage wiring. Do not run wiring close to transformers or high frequency generating equipment. Complete and verify all wiring connections before applying power to the controller to which the module is connected.



TM-3140-0000 Wiring

Resistance vs Temperature Table

The Pt1000 models are equipped with a resistive Pt1000 element according to EN 60751. At 0°C the resistance value is 1000 Ω. The accuracy is according to Class A.

Temperature in °C	Resistance in Ω
0	1000
5	1020
10	1039
15	1058
20	1078
25	1097
30	1117
35	1136
40	1155
45	1175
50	1194

Technical Specifications

Product	**TM-3140-0000**	
Ambient Operating Conditions	0 to 50 °C 10 to 90% RH, non condensing	
Ambient Storage Conditions	-20 to 70 °C 10 to 90% RH, non condensing	
Terminations	Terminal block in base for 1 x 1.5 mm² (maximum) cable	
Temperature Sensor	Resistive Pt1000 (1000 Ω at 0 °C)	
Accuracy	EN 60751, class A	
Mounting	Direct surface mount, plastic base for surface mount with wiring conduits	
Materials	Enclosure	ABS+PC; self extinguishing HB UL 94
	Base	
Colours	Enclosure	RAL9016 (GE86280)
	Base	
Protection Class	Enclosure	IP30 (EN 60529)
Dimensions (H x W x S)	80 mm x 80 mm x 32 mm	
Shipping Weight	0.15 kg	
CE **Conformity**	EMC Directive 2004/108/EC	EN-61000-6-3 EN-61000-6-2

The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

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Building Efficiency

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