

Series 2000 (Interactive) Room Temperature Sensors, TEC, Standard Design and Semi-Flush Mount

Overview

For high-end Terminal Equipment Controller (TEC) applications, these sensors allow users to view and adjust points in the controller using the sensor buttons and digital display.

A user-programmable display allows the simultaneous monitoring of the temperature, a user-selected point and day/night operation status.

Features

- User-programmable two-line liquid crystal display
- Simultaneous display of temperature, a user-selected point, and day/night operation status
- Backward compatibility with all TECs, including PTECs.
- Hardware-protected security
- Standard RJ-11 terminated cable
- No separate power source requirement
- Digital (error-free) setpoint adjustment

Product Numbers

Description	Product Number	
	Desert Beige	White
TEC Sensors	540-650A	540-650B
TEC Sensors with Fan-Speed Control (Momentary contact)	540-652A	540-652B
TEC Semi-Flush Mount	–	QAA1280FWSC

Accessories

Description	Product Number
Passkey	544-643A
Computer cable	540-143



Applications

- Operating rooms
- Laboratories
- Isolation rooms, with pressurization as the critical point
- Other difficult control spaces
- Executive suites and other high-profile areas

Operation

Buttons

The function of each button varies, depending on the current screen. For detailed instructions, see *Operating Instructions*.

Operation modes

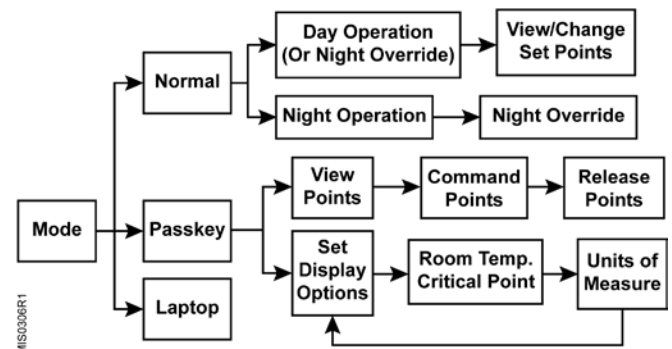





Figure 1. Operation Modes.

Normal

- In normal operation, no passkey or laptop is connected.
- The sensor may be set to display the temperature and a second important point for the user to monitor, called the "critical" point (such as setpoint, airflow or fan speed).
- Day operation only: Setpoints may be viewed and adjusted in 1° increments, using the  and  keys.
- The sensor displays a sun (☀) or moon (☾) indicating whether it is in day or night operation.
- In night operation, the override button  switches the TEC to day operation for the length of time preset in the TEC.

Passkey

Insert the passkey in the sensor MMI port to:

- View controller point numbers, descriptions, values, units and status.
- Change or command controller point values.
- Set up the following display options:
 - Turn the temperature (TEMP) display on or off.
 - Select a critical point to display, if desired.
 - Select units of measure—English or metric.

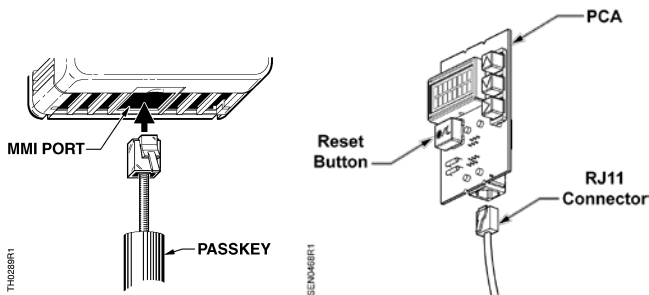


Figure 2. Inserting the Passkey.

NOTE: The Semi-Flush Mount Sensor MMI port can only be accessed after the front housing is removed.

Laptop

To communicate with the TEC using Datamate Base, Datamate Advanced, or Controller Interface Software (CIS), connect a computer-compatible cable (see *Accessories*) from a laptop to the sensor MMI port at the bottom of the sensor. This puts the sensor in laptop

mode, which deactivates all buttons and freezes or blanks the display. In this mode, the controller communicates only with the laptop.

Considerations

Point 00 (SETUP): The sensors reserve Point 00 (SETUP) for display setup mode, but only the sensor recognizes this point. It does not exist in the TEC database.

At the operator's terminal, Point 13 on the TEC always reads priority OVRD because the room sensor is commanding the setpoint. This is normal and cannot be changed if Point 14 is set to Y.

Point 1 (ADDRESS) and Point 2 (APPLICATION) cannot be changed.

Display Messages







Message	Meaning
ERROR NO COM	Communication with the controller is lost.
-F, #F, °F	If one of these three symbols displays, a point has failed.
LOADING PT# [xx]	The sensor is automatically loading the point database numbers from the controller, and displaying them as they load. This happens: (1) the first time it is connected to the TEC, and (2) when it is connected to the TEC with another application.
PASS KEY ACCEPTED	The passkey has been inserted in the MMI port and accepted as valid.
#	Point value has been overridden by operator.
*	TEC initial point value differs from its factory default value.

Specifications


A 10K ohm thermistor is used to detect temperature. The effective sensing and setpoint range is 55°F to 95°F (13°C to 35°C).

Operating Instructions



Setpoint (Day Operation Only)

1. Remove passkey (if present) from MMI port.
2. To view the setpoint screen: Press  or .
3. To change the setpoint: Press  or .
4. To cancel changes: Press .
5. To exit: Press  or wait five seconds.











Night Override

1. Remove passkey (if present) from MMI port.
2. To select day operation: Press .



Viewing Point Descriptions








1. Insert passkey in MMI port.
2. To select points: Press  or .
3. To exit: Remove the passkey.

Viewing/Commanding Point Values

1. Insert passkey in MMI port.
2. To select a point: Press  or .
3. To view a point's value: Press .
4. To view point command cursor: Press  or .
5. To select a character: Press .
6. To change a character: Press  or .
7. To cancel changes: Remove the passkey.
8. To save changes: Press .
9. To return to View Pt. Descript: Press .
10. To exit: Remove passkey.













Releasing Points from Override and/or Resetting to Factory Default Values

1. Insert passkey in MMI port.
2. To select a point: Press  or .

3. To view a point's value: Press .
4. To view the point command cursor: Press  or .
5. Press  until * or override symbol (#) is selected.
6. To release the point: Press  or .
7. To cancel changes: Remove the passkey.
8. To confirm release: Press .
9. To exit: Remove the passkey.

Setting Display Options

NOTE: Point 00 (SETUP) exist only in the sensor.

1. Insert passkey in MMI port.
2. Press  or , scroll to Point 00, and press 
 - a. **TEMP** (temperature)
To display TEMP (YES/NO): Press  or .
 - b. **CRPT** (critical point)
 - To go to **CRPT** command line: Press .
 - To select a point number: Press  or .
 - To turnoff **CRPT** display: Select Point 00.
 - c. **UNITS**
 - Press  and view the UNITS screen.
 - To select English/Metric: Press  or .
3. To exit and save changes: Press .
4. Remove the passkey.

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