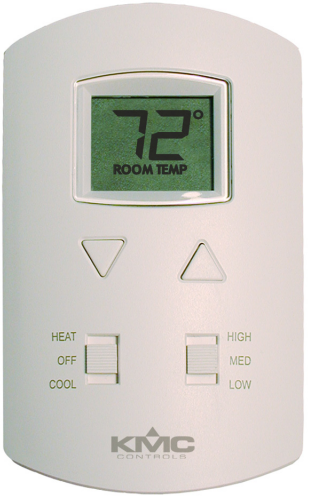
# Installation and Operation Guide




## NetSensor®
## KMD-1162
Temperature sensor

## Contents



Revision A 903-019-03A

## Specifications

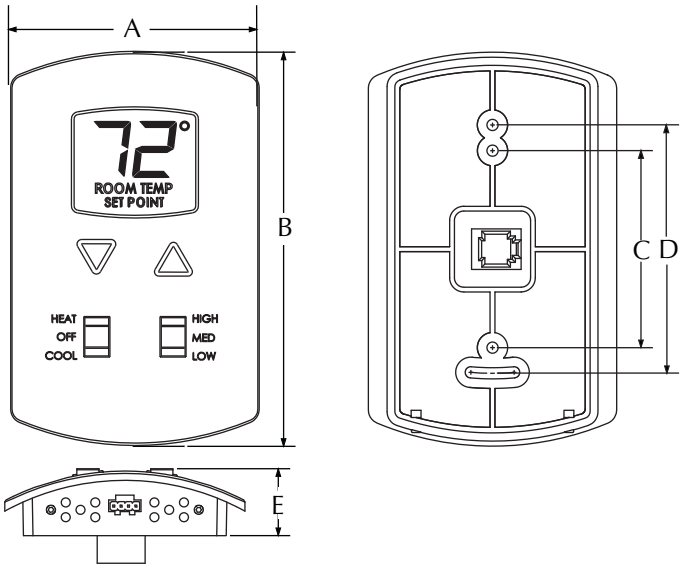
| | |
|---|---|
| **Display** | LCD, 2-character, 7-segment, 056. in. high. |
| **Compatibility** | KMD-5800 series controllers<br>KMD-7000 series controllers<br>BAC-5800 series BACnet controllers<br>BAC-7000 series BACnet controllers |
| **Connection** | |
| **Connector type** | RJ–12 connects data and power to compatible controllers |
| **Cable length** | Maximum 75 feet (22.9 meters) |
| **PC port** | Four-pin connector for service connection to software tools |
| **Power** | 5 volts DC supplied by connected controller |
| **Mounting** | Surface mount directly to any flat surface or to a 2 x 4 inch or 4 x 4 inch handy-box. Mounting on a 4 x 4 inch box requires a mounting backplate. |
| **Weight** | 2.8 ounces (80 grams) |
| **Material** | Light almond or white plastic |
| **Environmental Limits** | |
| **Shipping temperature** | -40 to 140° F (-40 to 60° C) |
| **Humidity** | 0–95% relative humidity non-condensing |
| **Accessories** | |
| **Mounting backplate, 4 x 4 inch** | |
| Almond | HMO–1161 |

| | |
|---|---|
| White | HMO–1161W |
| **Replacement allen screw** | HPO–0044 |
| **Network cables** | |
| 25 feet (7.6 meters) | KMD–5690 |
| 50 feet (15.2 meters) | KMD–5691 |
| 75 feet (22.9 meters) | KMD–5692 |
| **Interface Cable** | KMD–5624 |
| **Gasket** | HPO–1161 |

## Sensor type and accuracy

| | |
|---|---|
| **Type** | 10kΩ thermistor |
| **Accuracy** | ±2° F (±1.1° C) |
| **Operating range** | 47 to 97° F (8 to 36° C) |

## Dimensions




| A | B | C | D | E |
|---|---|---|---|---|
| 3.25 in. | 5.16 in. | 2.58 in. | 3.25 in. | 0.87 in. |
| 83 mm | 116 mm | 66 mm | 83 mm | 22 mm |

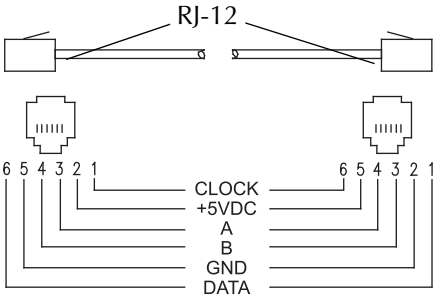
**Models**

| | |
|---|---|
| Almond | KMD-1162-10 |
| White | KMD-1162W10 |

## Network Cable Preparation

Connecting a NetSensor to a KMC controller requires a six-wire cable with RJ-12 connectors on each end. Use either the KMC Controls ready-to-use cables or make cables to length when the NetSensor is installed. Cables made to length must meet the following requirements:

- Cable length is no longer than 75 feet (22.9 meters).
- Use cable with #24 AWG size conductors.
- Cable insulation must meet local building codes. Plenum rated cable is recommended.
- Connectors are appropriate for the cable in use and are installed following the connector manufactures instructions.

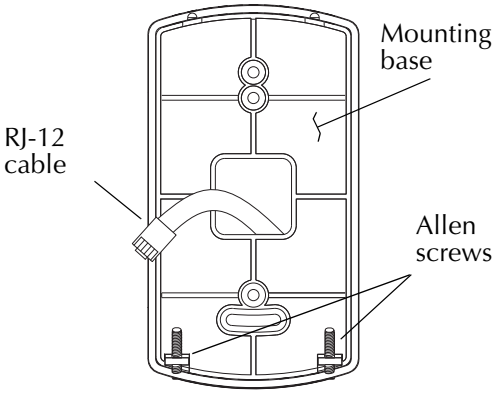



***Cable Details***

## Rough-in preparation

Complete rough-in wiring at each sensor location prior to sensor installation. This includes the following.

- Route the network cable from the NetSensor location to the controller to which it will connect.
- If required, install the appropriate mounting backplate. See *Accessories* on page 2 for model numbers.



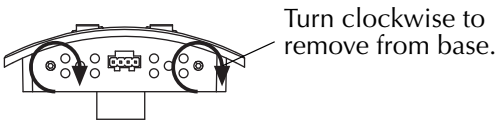

***NetSensor mounting backplate***

### Caution

To prevent mounting screw heads from touching the circuit board in the NetSensor, use only the mounting screws supplied by KMC Controls. Using screws other than the type supplied will damage the NetSensor.

## Installing the NetSensor

1. Turn the Allen screws in the base of the NetSensor clockwise until they clear the cover. Swing the sensor away from the backplate to remove it.



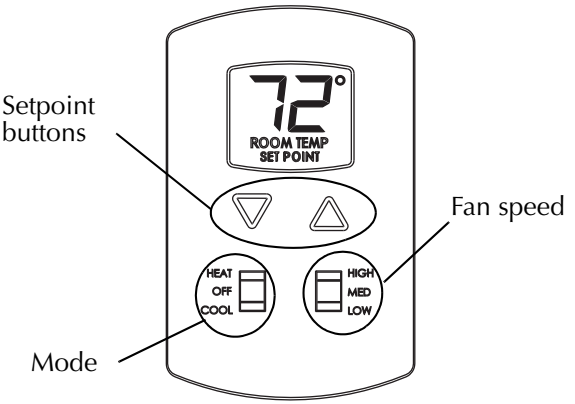

***Allen screws***

2. Route the RJ-12 cable through the mounting base.

3. Fasten the mounting base to the backplate or the outlet box with the Allen screws toward the floor.
4. Insert the RJ-12 cable coming from the base into the NetSensor.
5. Place the top of the NetSensor over the top of the mounting base and swing it down over the Allen screw brackets. Be careful not to pinch any wiring.
6. Back the Allen screws out of the brackets until they engage the NetSensor cover and hold it in place.

## Operation

The following sections describe the controls and indicators found on the NetSensor.




***NetSensor button functions***

### Display

The display includes two 7-segment LCD digits that are visible across a normal size office. Room temperature is displayed until either setpoint button is pressed and then the display changes to setpoint mode.

If the temperature remains out of the temperature operating range for more than 45 seconds, the KMD–1162 displays a set of dashes (—). The NetSensor also sends 0 to the controller if the temperature is below 47 degrees Fahrenheit (8 degrees Celsius) and 120 if the temperature is above 97 degrees Fahrenheit (36 degrees Celsius).

### Changing the setpoint

Pressing either the up or down setpoint buttons changes the display from room temperature mode to setpoint mode. Pressing either button once displays the current setpoint for three seconds; each additional press increments or decrements the setpoint temperature by one degree Fahrenheit.

### Backlight

When either setpoint button is pressed the backlight turns on and remains on for 10 seconds after the last button is released.

## Programming instructions

Programming instructions for NetSensors are included in Help supplied with WinControlXL, BACstage, and TotalControl.

## Maintenance

Remove dust as necessary from holes in top and bottom. Clean the display with soft, damp cloth and mild soap.

## Important notices



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