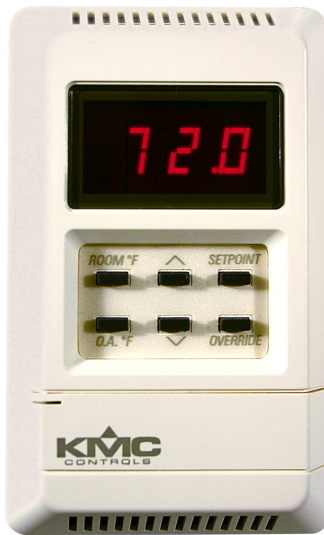




Installation and Operation Guide



NetSensor®

KMD-1151 and KMD-1171 Temperature and humidity sensors

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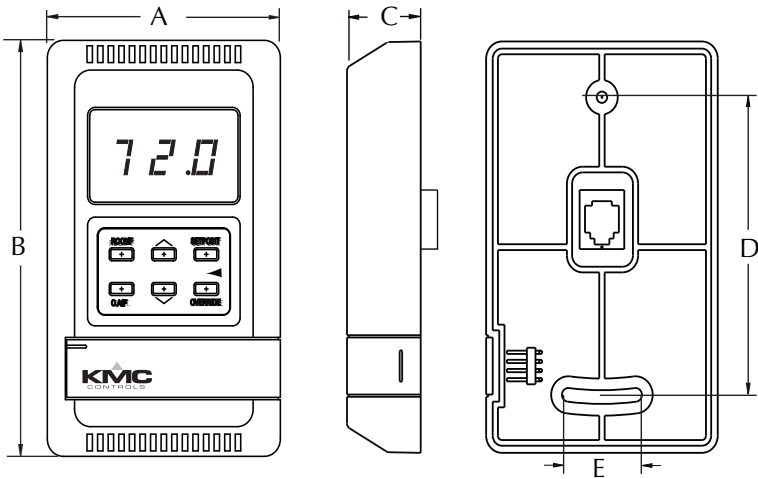
Specifications

Display	Red LED, 4-character, 7-segment, 0.375 inches high
Connection	
Connector type	Six-wire modular RJ-12 for connection to compatible KMC Tier 2 digital controller
Maximum cable length	75 feet (22.9 meters)
Auxiliary contacts	Six-inch, 18 AWG wire leads
Power	5 volts DC supplied from connected controller
Compatibility	KMD-5800 series controllers KMD-7000 series controllers
Mounting	Surface mount directly to any flat surface or to a 2 x 4 inch or 4 x 4 inch handy-box (box mounting requires one of the mounting backplates on page 4).
Weight	2.8 ounces (80 grams)
Material	Light almond or white plastic
Sensor Accuracy, KMD-1151	
Type	Thermistor
Accuracy	$\pm 0.36^{\circ}$ F (-0.2° C)
Resistance	10,000 Ω at 77 $^{\circ}$ F (25 $^{\circ}$ C)
Operating range	48 to 96 $^{\circ}$ F (8.8 to 36.1 $^{\circ}$ C)

Sensor Accuracy, KMD-1171

Sensor type	CMOS
Temperature Accuracy	$\pm 0.5^{\circ}\text{C}$ at 25°C $\pm 0.9^{\circ}\text{C}$ from 0° to 40°C
Response time	Less than or equal to 20 seconds
Humidity Range	0-100% Relative humidity
Accuracy at 25°C	$\pm 3.5\%$ from 20–80% Relative humidity
Response time	Less than or equal to 4 seconds

Dimensions



A	B	C	D	E
2.75 in.	4.5 in.	0.87 in.	3.25 in.	0.80 in.
70 mm	114 mm	22 mm	82 mm	20 mm

Environmental Limits

Operating Temperature	48 to 96°F (8.8 to 33.5°C)
Shipping	-40 to 140°F (-40 to 60°C)
Humidity	0-95% Relative humidity non-condensing

Accessories

Mounting backplates

2 x 4 inch	HPO-5030
4 x 4 inch	HPO-5042

Replacement parts

)Allen screws	HPO-0044 (package of 10)
Access door	HPO-0064
Mounting base	HPO-5040

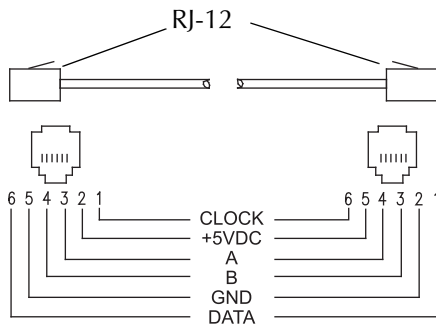
Network cables

25 feet (7.6 meters)	KMD-5690
50 feet (15.2 meters)	KMD-5691
75 feet (22.9 meters)	KMD-5692

Network cable preparation

Connecting a NetSensor to a KMC Tier 2 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.

- ◆ Routing the network cable from the NetSensor to a Tier 2 controller.
- ◆ Installing the appropriate mounting base. See [Accessories on page 4](#) for model numbers.
- ◆ Connect auxiliary wires to unpowered switch or relay contacts.

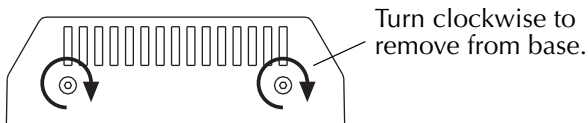


Caution

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.

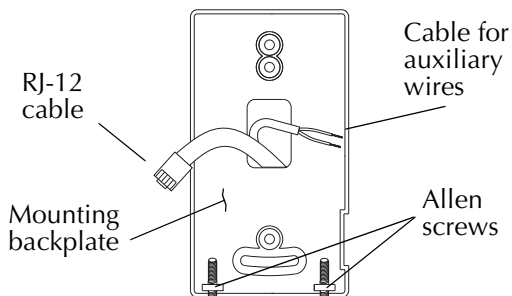
Installing the NetSensor

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



Mounting screws

2. Feed the RJ-12 cable through the mounting backplate.



Mounting backplate ready for NetSensor

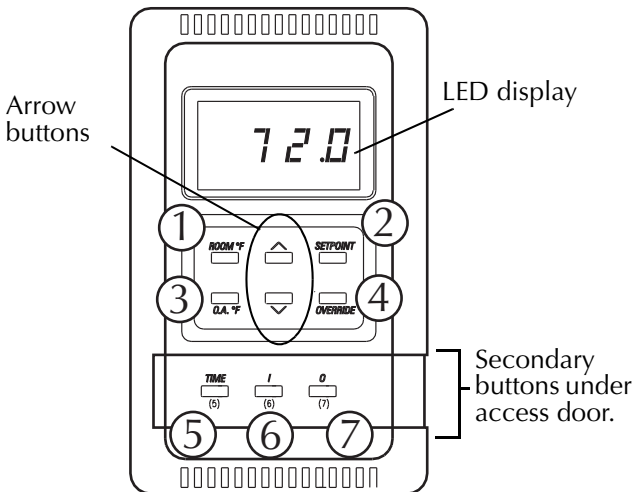
3. Secure the mounting base to mounting surface. Position the Allen screws toward the floor.
4. Insert the RJ-12 network cable coming from the base into the NetSensor.
5. Place the top of the NetSensor over the top of the mounting base and swing it down over the Allen screw brackets. Be careful not to 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.

Display The display consists of four 0.375-inch, 7-segment LED digits that are visible across a normal size office. The display provides temperature readouts and can be programmed to remain on continuously or to turn off after a set time period.

Controls The KMD-1151 and KMD-1171 NetSensors include a total of nine push buttons; seven of which (buttons 1-7) are user programmable. The actual operation of the programmable buttons depends upon the program assigned to the NetSensor.



NetSensor components

The arrow buttons adjust the programmed values up or down. Values can be changed for all buttons (if programmed) except the #1 button as follows:

1. Press the button for the desired function.
2. Adjust the value up or down.

Auxiliary contact wires

Connect the auxiliary wires to an unpowered switch or set of relay contacts.

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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KMC Controls. Inc.
19476 Industrial Drive
New Paris, IN 46553
TEL: 1.574.831.5250
FAX: 1.574.831.5252
E-mail: info@kmccontrols.com