



Installation and Operation Guide



NetSensor[®] KMD-1261 and KMD-1281 Motion, temperature and humidity sensors

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Specifications

Display	LCD, 4-character, 7-segment, 0.375 in. high. (temperature)
Compatibility	KMD-5800 series controllers KMD-7000 series controllers BAC-5800 series BACnet controllers BAC-7000 series BACnet controllers
Controller 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 the 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

Accessories

Mounting backplate

Almond 4 x 4 inch	HMO-1161
White 4 x 4 inch	HMO-1161W

Gasket HPO-1161

Replacement Allen screws HPO-0044 (package of 10)

Network plenum cables with connectors

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

Sensor Accuracy, KMD-1261

Type	Thermistor
Accuracy	$\pm 0.36^{\circ}\text{F}$ ($\pm 0.2^{\circ}\text{C}$)
Resistance	10,000 Ω at 77 $^{\circ}\text{F}$ (25 $^{\circ}\text{C}$)
Operating range	48 $^{\circ}$ to 96 $^{\circ}\text{F}$ (8.8 $^{\circ}$ to 35.5 $^{\circ}\text{C}$)

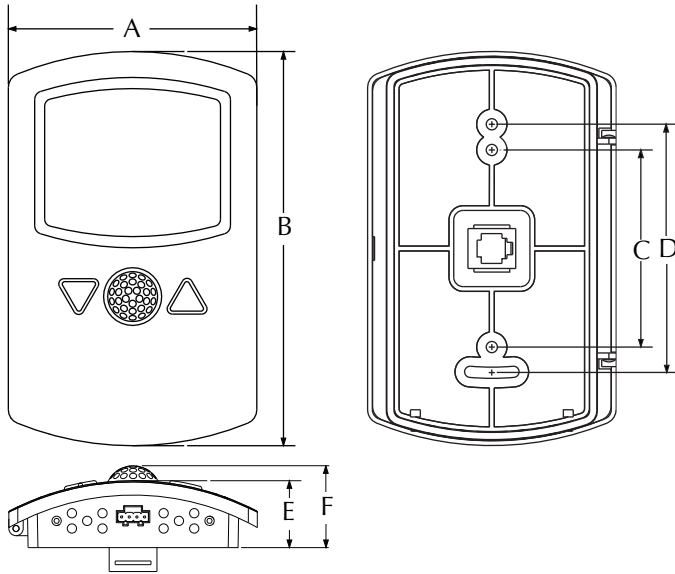
Sensor Accuracy, KMD-1281

Type	CMOS
Humidity	
Range	0 to 100% Relative humidity
Accuracy at 25$^{\circ}\text{C}$	$\pm 2\%$ from 10–90% Relative humidity
Response time	Less than or equal to 4 seconds
Temperature	
Accuracy	$\pm 0.9^{\circ}\text{F}$ ($\pm 0.5^{\circ}\text{C}$) Offset from 40 to 104 $^{\circ}\text{F}$ (4.4 to 40.0 $^{\circ}\text{C}$) Offset is adjusted through configuration software
Resolution	$\pm 0.1^{\circ}\text{F}$ ($\pm 0.1^{\circ}\text{C}$)
Operating range	36 to 120 $^{\circ}\text{F}$ (2.2 to 48.8 $^{\circ}\text{C}$)
Response time	5 to 30 seconds

Environmental Limits

Operating Temperature	34 $^{\circ}$ to 125 $^{\circ}\text{F}$ (1.1 to 51.6 $^{\circ}\text{C}$)
Shipping	-40 $^{\circ}$ to 140 $^{\circ}\text{F}$ (-40 $^{\circ}\text{C}$ to 60 $^{\circ}\text{C}$)
Humidity	0 to 95% Relative humidity non-condensing

Dimensions



A	B	C	D	E	F
3.25 in.	5.16 in.	2.58 in.	3.25 in.	0.87 in.	1.07 in.
83 mm	131 mm	66 mm	83 mm	22 mm	27 mm

Models

Temperature only

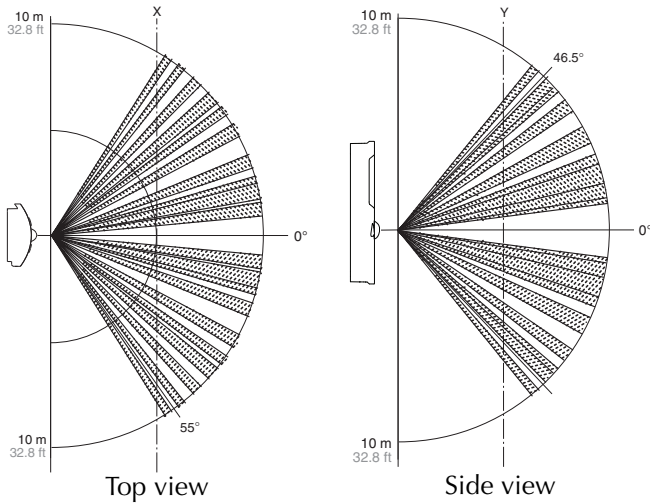
Almond	KMD-1261
White	KMD-1261W

Temperature and humidity

Almond	KMD-1281
White	KMD-1281W

Motion sensor range

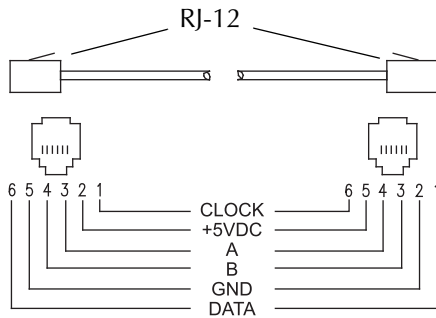
33 feet (10 meters)



Network cable preparation

Connecting a NetSensor to a controller requires a six-wire cable with RJ-12 connectors on each end. KMC plenum-rated preassembled cables are recommended. Cables made to length must meet the following requirements:

- ◆ Cable length must be no longer than 75 feet (22.9 meters).
- ◆ Cable conductors must be no smaller than #24 AWG.
- ◆ Cable insulation must meet local building codes.
- ◆ Connectors must be appropriate for the cable in use and are installed following the connector manufacturers instructions.



Cable details

Rough-in preparation

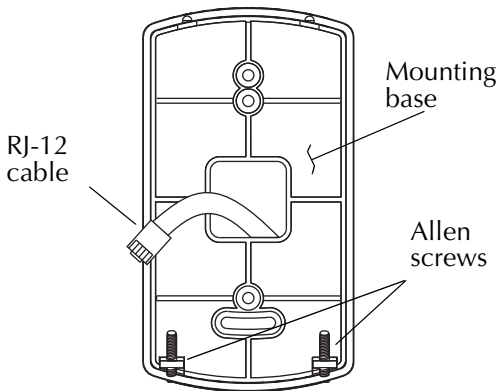


Caution

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.

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

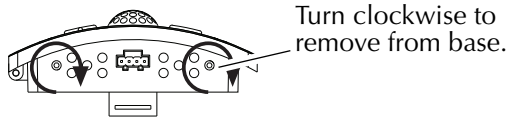
- ◆ Routing the network cable from the NetSensor to a controller.
- ◆ If required, installing the appropriate backplate. See [Accessories on page 3](#) for model numbers.



NetSensor mounting details

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 mounting base to remove it.



Mounting screws

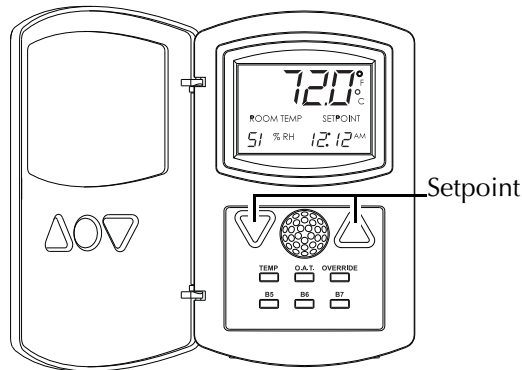
2. Route the RJ-12 cable through the mounting base.
3. Fasten the mounting base directly to a 2 x 4 inch outlet box or a backplate with the Allen screws toward the floor.
4. Insert the RJ-12 cable coming from the base into the NetSensor.
5. Place the top of the NetSensor over the top of the mounting 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.

Display The temperature display contains four 0.375-inch, 7-segment LCD digits that are visible across a normal size office. The display provides time, temperature and on the KMD-1281 humidity readouts. Room temperature is displayed until either setpoint button is pressed and then the display changes to setpoint mode.

Controls Models KMD-1261 and KMD-1281 include eight push buttons; six of which (button 1 and buttons 3-7) are user programmable. The actual operation of the programmable buttons depend upon the program in the controller to which the NetSensor is connected.



NetSensor buttons

The arrow buttons adjust the programmed values up or down. Values can be changed for all programmed buttons except the setpoint as follows:

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

Setpoint Pressing either the up \triangle or down ∇ arrow buttons changes the display from room temperature mode to setpoint mode. Each additional time a setpoint button is pressed and released changes the setpoint up or down.

Auxiliary function These NetSensors do not have auxiliary wires found on earlier models. Press buttons 5 and 7 together and then press an up arrow or down arrow button to change the auxiliary function.

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 and motion sensor cover with a soft, damp cloth and mild soap.

Important notices

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