

driSteem

Model: KHR-2-DS

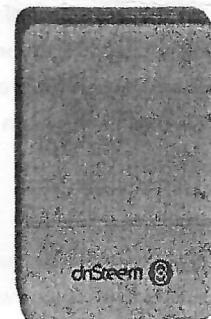
DESCRIPTION

The **Model KHR Space Relative Humidity Transmitter** monitors relative humidity in a space environment and generates an output proportional to the humidity.

The transmitter uses a thin film capacitive polymer humidity sensor. Standard output is 4 to 20 mA (0 to 100% RH). A conformal coating protects sensitive sensor circuits and components from condensation.

The **Model KHR** incorporates a compact, two-piece enclosure. The base mounts directly on a wall or over an electrical junction box.

FIGURE 1-1: MODEL KHR



**Table 1-1:
Specifications**

GENERAL	
Accuracy	±2% (includes hysteresis, stability, and linearity)
Hysteresis	±1% of RH, 10 to 90 to 10% RH
Stability	±2% of RH over 24 months typical
Linearity	±1% of RH typical
Sensing element	Thin-film capacitive polymer
Temperature dependence	Negligible between 32°F and 122°F (0° and 50°C)
Time constant	60 second in slow-moving air
ELECTRICAL	
Power requirement 4 to 20 mA	12 (min) to 28 (max) VDC @ 4 to 20 mA
Signal output current	4 to 20 mA loop current, 2-wire powered DC; maximum load resistance at 12 VDC is 100Ω, at 28 VDC is 900Ω
HUMIDITY	
Range	0 to 100% RH
PHYSICAL	
Dimensions	See outline drawing
Weight	2.2 oz.
Enclosure material	ABS, white
ENVIRONMENTAL	
Operating temperature	-4° to 140°F (-20° to 60°C)
Operating humidity	0 to 95% RH non-condensing
Storage temperature	-4° to 158°F (-20° to 70°C)
Storage humidity	0 to 95% RH non-condensing

INSTALLATION

Mounting

Do not install the **Model KHR** transmitter where the ambient exceeds the specified operating environment. The preferred orientation of the transmitter is vertical with the sensing element on the bottom. Select a location on an inside wall about eye level and away from heat and cold sources.

CONNECTING

Pull wires from the wall through base, and connect wires as required for the specified power and signal configuration (see wiring diagram). Use terminal block for connections. Push excess wires into the wall and plug the hole with insulation to prevent inner wall air migration.

OPERATION

Transmitters dissipate power in the form of heat. Current loop transmitters are calibrated to compensate for the power dissipated. With power on and cover in place, relative humidity readings from current loop transmitters stabilize after 20 minutes.

DRI-STEEM Corporation

a subsidiary of Research Products Corporation
DriSteem is an ISO 9001:2000 certified company

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Form No. Cut_sheet_transmitter_rom_KHR-2-DS_0216

FIGURE 2-1: DIMENSIONS

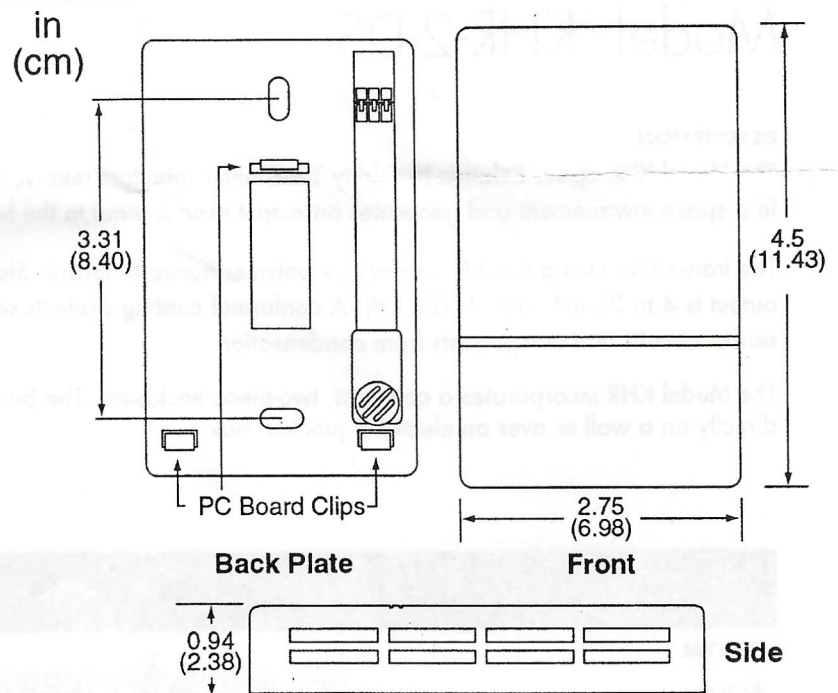


FIGURE 2-2: WIRING - KHR

