



## Space Humidity Transmitter

Catalog Number(s) 1414-CHD30PKDAA,  
1414-CHZ30PKRAA, 1414-IHD20GKRAA,  
1414-IHZ20GKRAA



### About the Space Humidity Transmitter

The Relative Humidity transmitter uses a capacitive type humidity sensor for reliable, accurate readings.

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**IMPORTANT**

The humidity sensor used in this device is static sensitive. Anti-static precautions should be followed to prevent damage to the sensor.

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## Important User Information

Solid state equipment has operational characteristics differing from those of electromechanical equipment. *Safety Guidelines for the Application, Installation and Maintenance of Solid State Controls* (Publication SGI-1.1 available from your local Rockwell Automation sales office or online at <http://www.literature.rockwellautomation.com>) describes some important differences between solid state equipment and hard-wired electromechanical devices. Because of this difference, and also because of the wide variety of uses for solid state equipment, all persons responsible for applying this equipment must satisfy themselves that each intended application of this equipment is acceptable.





In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

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Throughout this manual, when necessary, we use notes to make you aware of safety considerations.

<p><b>WARNING</b></p> 	<p>Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.</p>
<p><b>IMPORTANT</b></p>	<p>Identifies information that is critical for successful application and understanding of the product.</p>
<p><b>ATTENTION</b></p> 	<p>Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you identify a hazard, avoid a hazard and recognize the consequences.</p>
<p><b>SHOCK HAZARD</b></p> 	<p>Labels may be located on or inside the equipment (e.g., drive or motor) to alert people that dangerous voltage may be present.</p>
<p><b>BURN HAZARD</b></p> 	<p>Labels may be located on or inside the equipment (e.g., drive or motor) to alert people that surfaces may be dangerous temperatures.</p>

## Install the Space Humidity Transmitter

Transmitters can be mounted directly on a wall or to a wall box. For the most accurate results, units should be mounted on an inside wall to a wall box, approximately 3 to 5 feet from the floor, away from any supply air exhausts and other sources of heat or cold. The enclosure cover is held in place with a locking tab located to the left of center at the bottom of the enclosure. After installation the cover can be locked on with the set screw (1/16" or 1.5 mm) at the bottom of the enclosure.

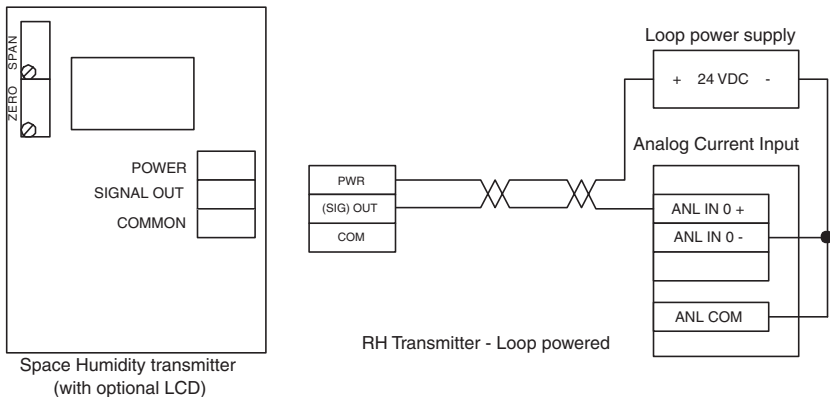
## Wire/Connect the Space Humidity Transmitter

Anti-static precautions should be followed to prevent damage to the device.

The transmitter should be connected to the controller using twisted-pair 18 to 22 AWG wire and requires two wires for DC 4 to 20 mA loop-powered operation. Use shielded cable for the highest noise immunity. Do not route signal wires in the same conduit with power cables as signal degradation may occur. The controller Analog Input (AI) must be selected to match the transmitter output before power is applied. The AI type must be a current input with 250 or 500 ohm impedance. All transmitters have an operating range of 0 to 70 °C (32 to 158 °F) The transmitter board should not be mounted where temperatures will exceed these values. See the connection diagram for more details. The optional LCD display is powered by the same supply as the transmitter.

### Wire Connections For Relative Humidity Boards

The temperature sensor optional output is on the two terminals marked TEMP. Typical wiring to a controller is shown in the connection diagram.



For 4 to 20 mA loop signal, only the PWR and OUT terminals are used.

# Specifications

<b>Specification</b>	<b>Vaule</b>
Transmitter Accuracy	+/-2, or 3% RH
Power Supply	24V dc
Wiring Connections	Screw connectors (18...24 AWG)
Output (scaled 0...100%)	4...20 mA
Operating Temperature	0 to 70°C (32 to 158°F)

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