

Room Humidity Transmitter Installation Instructions

APPLICATION

The 2232-053 Room Humidity Transmitter is designed to measure room humidity over a 30 to 80% R.H. span, and transmit a proportional 3 to 15 psig signal to controlling and indicating devices such as receiver-controllers, receiver gauges and sensitive pressure switches.

This device is a one-pipe, force balanced transmitter which requires an external restrictor in the supply line. It incorporates a highly sensitive hygroscopic nylon element and a ball valve for pneumatic feedback which ensures accuracy and stability over the entire operating range. All internal parts are corrosion resistant, and there is an internal filter to maintain cleanliness of operating parts.

Accessories

Part Number	Replaces Model	Description		
Accessories				
20-660	6-441	Cover screw		
20-707	10-53	Metal thermostat guard		
20-715	10-62	Clear thermostat guard		
21-876	10-76	Opaque thermostat guard		
21-928	Gray plastic cover, blank dial			
21-933		Gray plastic cover, °F/°C dial		
Calibration				
20-881	N2-4	Calibration wrench		
22-138	MCS-GA	Branch tap gauge adaptor		
900-002		Thermostat calibration kit		
Installation				
10-82-SS	Outlet box mounting plate, stainless steel			
20-850	10-82	2 Outlet box mounting plate, black		
20-642		Mounting ring		
21-473		Snap-in drywall mounting		
22-021		Universal drywall mounting kit		
22-022	N5-95	Competitor replacement mounting kit		
22-024		Standard mounting kit		

SPECIFICATIONS

Action: direct acting, proportional.

Range: 30% to 80% R.H.

Output pressure: 3 to 15 psig.

Main air pressure: 20 psig operating, 30 psig maximum.

Air consumption: 29 scim.

Air connection: barbed nipple for 3/16" O.D.

spring-reinforced tubing.

Calibration point: 9 psig at midrange. **Maximum ambient temperature:** 140°F.

Caution: This device should be installed by a qualified



person with due regard for safety, as improper installation could result in a hazardous condition.

Model Chart

Schneider Electric Number	Replaces Model	Description*
2232-053	H53-301	Includes 1/4" by 3/16" barbed couplings, 20-693 tubing, standard mounting plate and screws.

^{*}Other rough-in hardware and installation fittings must be ordered separately.

GENERAL INSTRUCTIONS

- Transmitter should be mounted where it will be affected only by average room humidity. Free circulation of air must exist at mounting location. Avoid locations that are affected by drafts, radiant heat, water pipes, air ducts, etc.
- Avoid outside wall locations. When this location is specified, use 20-716 Insulating Backplate.
- Mount Transmitter only after wall surface has been finished. Allow the device time to reach ambient conditions before calibrating.
- 4. Receiver gauge must be 3-15 psig range and graduated 30-80% R.H. to match transmitter output.
- 5. The nylon hygroscopic element must be kept clean. Do not touch with fingers or other foreign objects.

Installation

- Tools (not provided):
 - Appropriate screwdriver for mounting the thermostat
 - 20-881 Thermostat calibration and cover screw wrench (or 1/16" and 1/4" hex wrenches)

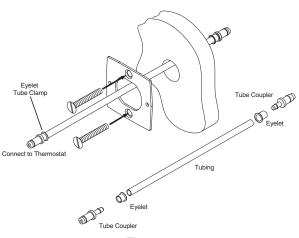


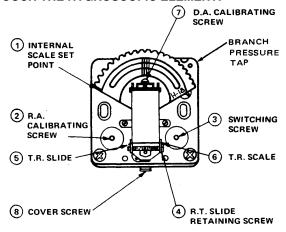
Figure-1

- 1. Assemble the eyelets and two tube couplers to tubing.
- 2. Connect the assembly by inserting the tube coupler into existing tubing in the wall (Figure-1).
- Pull tubing through center hole in mounting plate and screw mounting plate to wall with flat head screws. Cut tubing. The tubing is connected into the port on the thermostat (Figure-1).
- 4. Affix thermostat to mounting ring with round head screws, taking care not to kink the tubing.

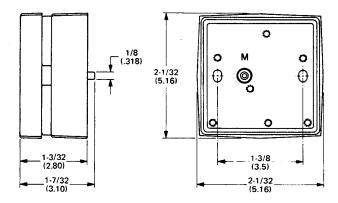
CALIBRATION

After mounting, check calibration. Calibration is accomplished by turning calibrating screw (1) clockwise to decrease branch pressure or counterclockwise to increase the branch pressure. **DO**

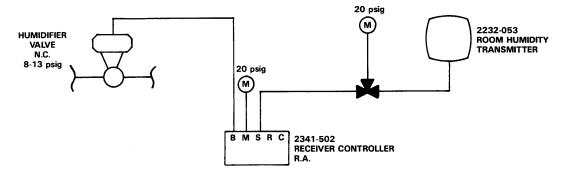
NOT TOUCH THE HYGROSCOPIC ELEMENT!



MOUNTING DIMENSIONS



TYPICAL APPLICATION



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