

**Room Humidity Transmitter
Data Sheet**

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.

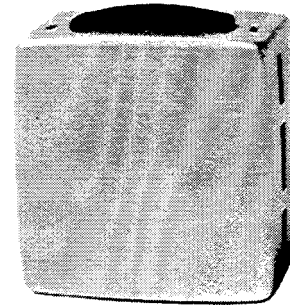


Table-1 Ordering Data.

TAC Number	Replaces Model	Comments*
2232-053	H53-301	Includes: Blank cover, wall plate, (1) 1/4" x 3/16" reducer, 6" piece of plastic tubing and mounting plate

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

Table-2 Accessories.

TAC Number	Replaces Model	Description
20-944	N4-32	Restrictor tee, copper tubing
21-038	N100-0010	Restrictor tee, polyethylene tubing
21-153	N100-2501	In-line restrictor
22-138	MCS-GA	Branch tap gauge adaptor

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.

General Instructions

1. 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.
2. Avoid outside wall locations. When this location is specified, use 20-716 Insulating Backplate.
3. 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.

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!**

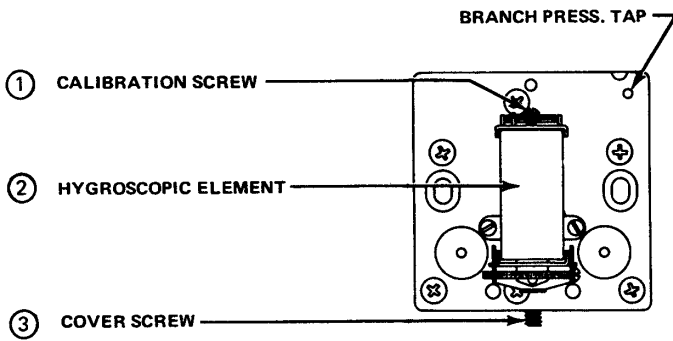


Figure-1 With Cover Removed.

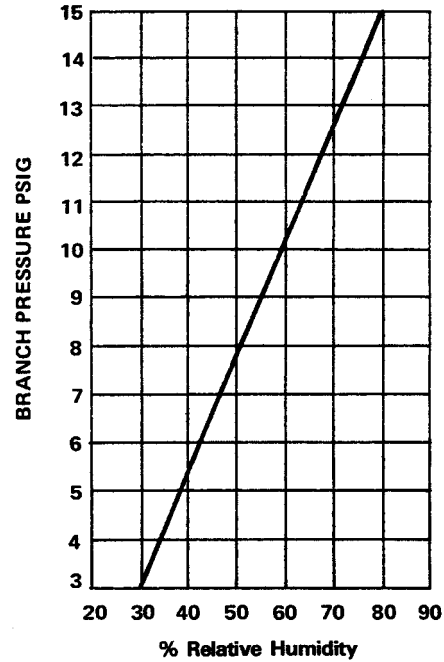


Figure-2 Relative Humidity vs Branch Pressure.

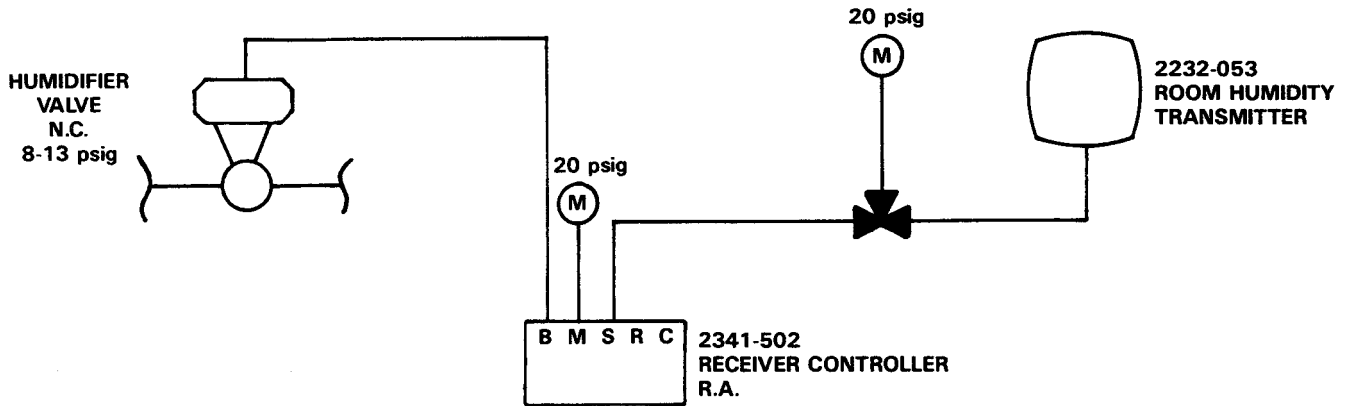


Figure-3 Typical Application.

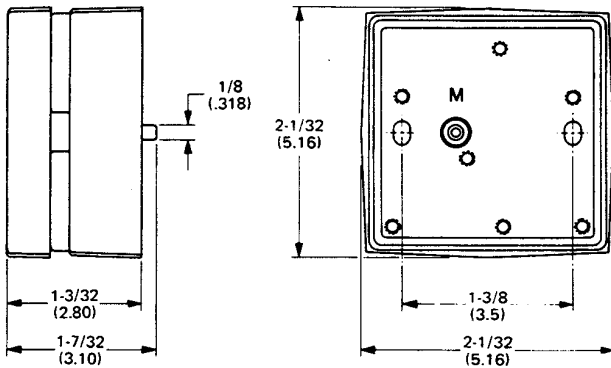


Figure-4 Mounting Dimensions.

Maintenance and Repairs

Maintenance is limited to calibration and checking to make sure that the 2232 filter and the restrictor are not clogged. Should the device fail to function properly, replace with new unit.

Mounting Methods

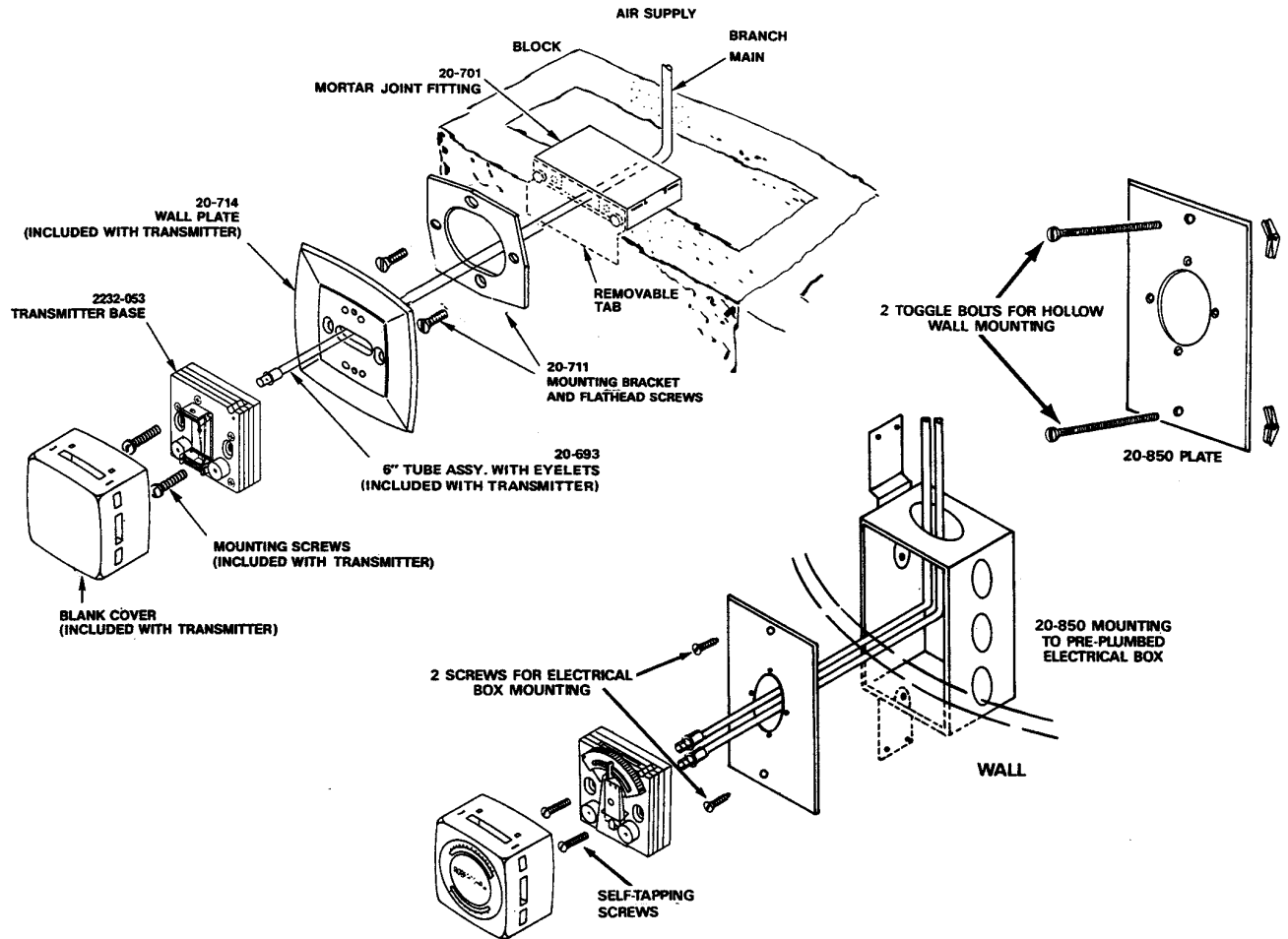


Figure-5 2232-053 Installation Using Mounting Box in Masonry Wall.

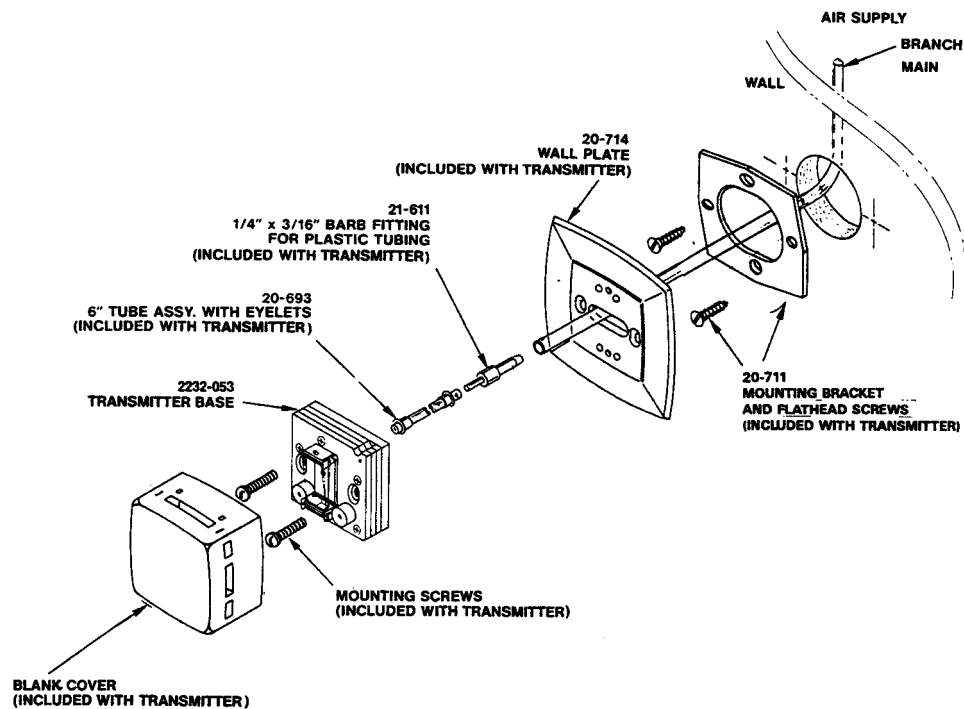


Figure-6 2232-053 Flushing Method.

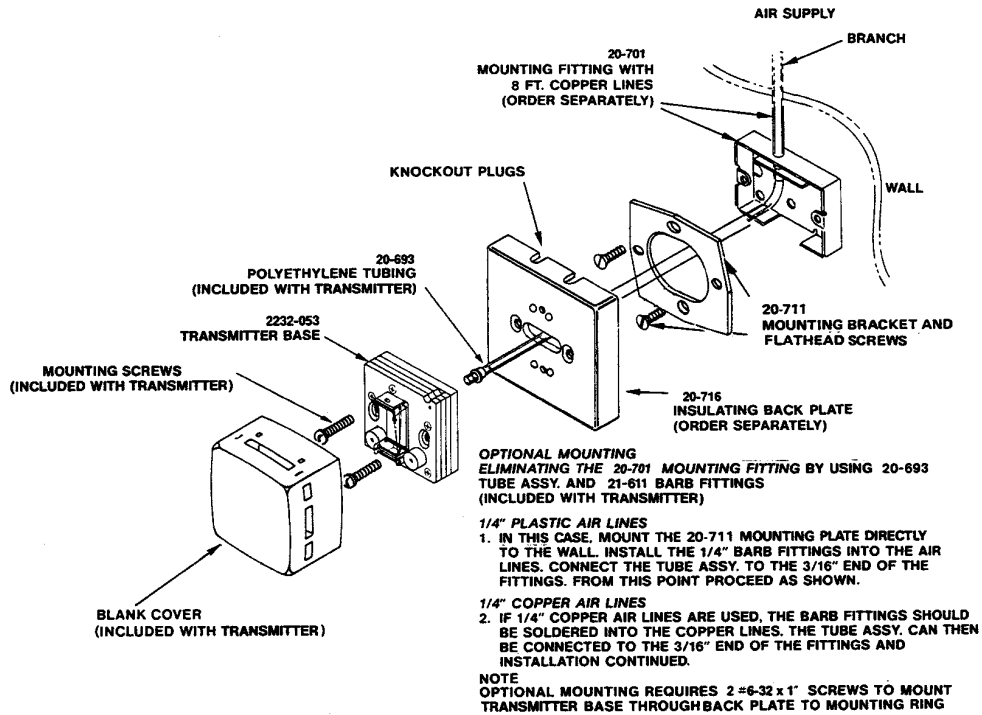


Figure-7 2232-053 Surface Mounting.

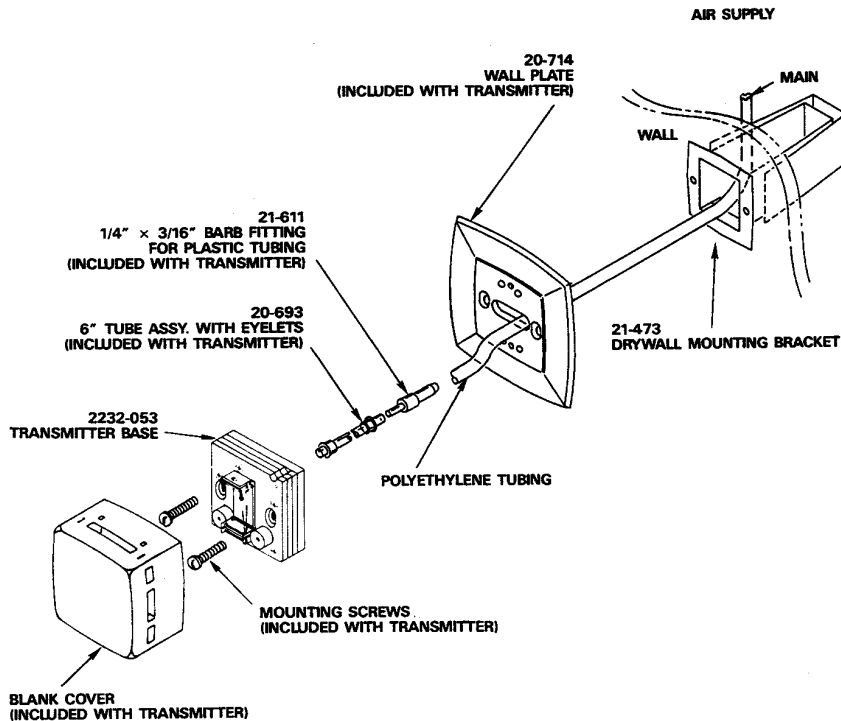


Figure-8 2232-053 Flush Mounting.