2220-053

by Schneider Electric

Room Temperature Transmitter Data Sheet

The 2220-053 Room Temperature Transmitter senses room temperature and transmits a proportional pneumatic signal to a calibrated receiver gauge and/or a receiver controller. It is designed to transmit a 3-15 psig signal over a 50°-90°F span, and is factory calibrated.

This unit is a “one-pipe” force balanced transmitter which must utilize an external restrictor in the supply line. It incorporates a highly sensitive bimetal thermostatic element and a ball valve with pneumatic feedback. This ensures accuracy and stability over the entire operating range.

The internal parts are corrosion resistant. Flexure hinges are used instead of pivots to reduce friction, and there is an internal non-replaceable air filter to maintain cleanliness of the operating parts. These features along with simplified design and small movements of the operating parts provide an instrument with a long maintenance free operating life.

Table-1 Ordering Data.

TAC Uni-Line Number	Replaces Model	Comments
2220-053	T53-101	Includes: Wall Plate, (1) 1/4" x 3/16" Reducer, 6" Piece of Plastic Tubing and Mounting Plate

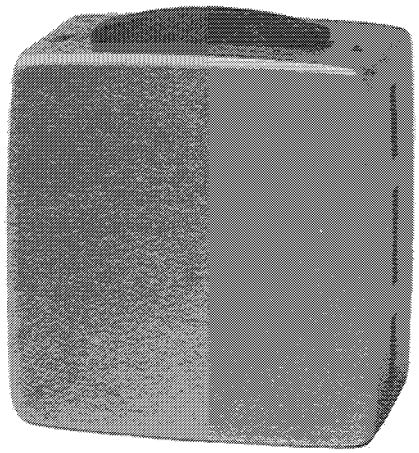
Cover not included. Order 21-928 separately.

Table-2 Accessories.

TAC Uni-LIne Number	Replaces Model	Description
20-715	10-62	Clear cover thermostat guard
20-881	N2-4	Thermostat calibration wrench
20-944	N4-32	Restrictor tee, copper tubing
21-038	N100-0010	Restrictor tee, polyethylene tubing
21-153	N100-2501	In-line restrictor
21-876	10-76	Opaque cover thermostat guard
22-138	MCS-GA	Branch tap gauge adaptor

SPECIFICATIONS

Action: Direct, proportional.
Range: 50° to 90°F.
Output Pressure: 3 to 15 psig.
Main Air Pressure: 20 psig operating, 30 psig maximum.
Air Consumption: 30 scim.
Air Connection: Nipple for 3/16" OD spring-reinforced tubing.
Calibration Point: Factory calibrated to 9 psig at midrange.
Maximum Ambient Temperature: 140°F.

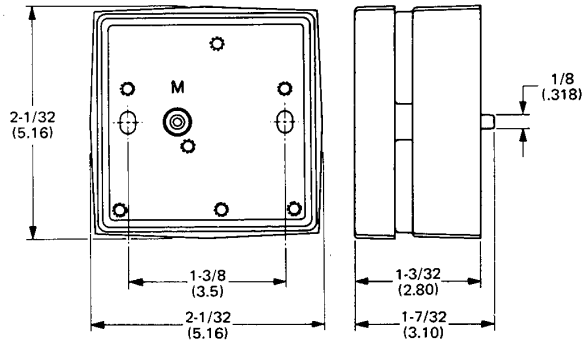


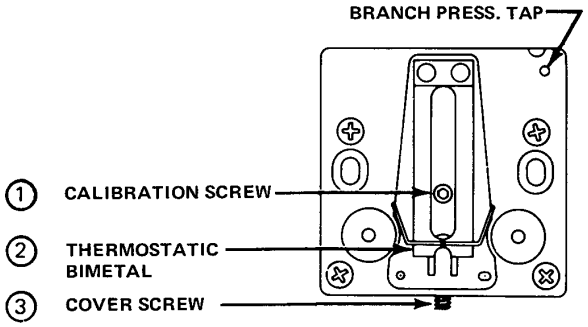
GENERAL INSTRUCTIONS

1. Transmitter should be mounted where it will be affected only by the average room temperature. Free circulation of air must exist at the selected location. Avoid locations that are affected by drafts, or radiant heat from the sun, water pipes, air-ducts, etc.
2. Location on outside walls should be avoided. However, should this location be necessary, **ALWAYS MOUNT TRANSMITTER ON A 20-716 INSULATING BACKPLATE, AND HOLE IN WALL BEHIND TRANSMITTER SHOULD BE SEALED IF THERE IS DANGER OF DRAFTS FROM INSIDE THE WALL**.
3. Transmitter should be mounted **AFTER WALL SURFACE HAS BEEN FINISHED**.
4. Receiver gauge must be 3-15 psig range and graduated 50°-90°F to match transmitter output.

Caution: This device should be installed by a qualified service technician with due regard for safety, as improper installation could result in a hazardous condition.

MOUNTING DIMENSIONS



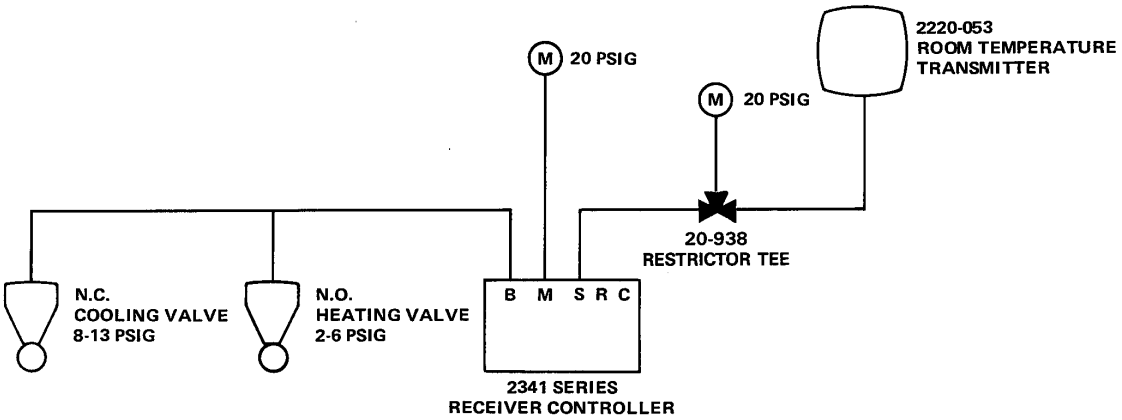


2220-053 WITH COVER REMOVED

CALIBRATION

The 2220-053 is factory calibrated to provide a 3 to 15 psig signal over the range of 50 to 90°F. Additional field calibration should not be required. If minor field calibration is required, turning the calibration screw (1) clockwise increases the branch pressure; counterclockwise rotation decreases the pressure.

TYPICAL APPLICATION



MAINTENANCE AND REPAIR

Due to the simplicity of the design, no maintenance is required to ensure continued efficient operation.

In the event of a failure, make sure the filter at the restrictor, or the restrictor itself is not clogged. If these are not clogged, and the unit fails to function properly, replace the defective unit with a new device.

TYPICAL MOUNTINGS

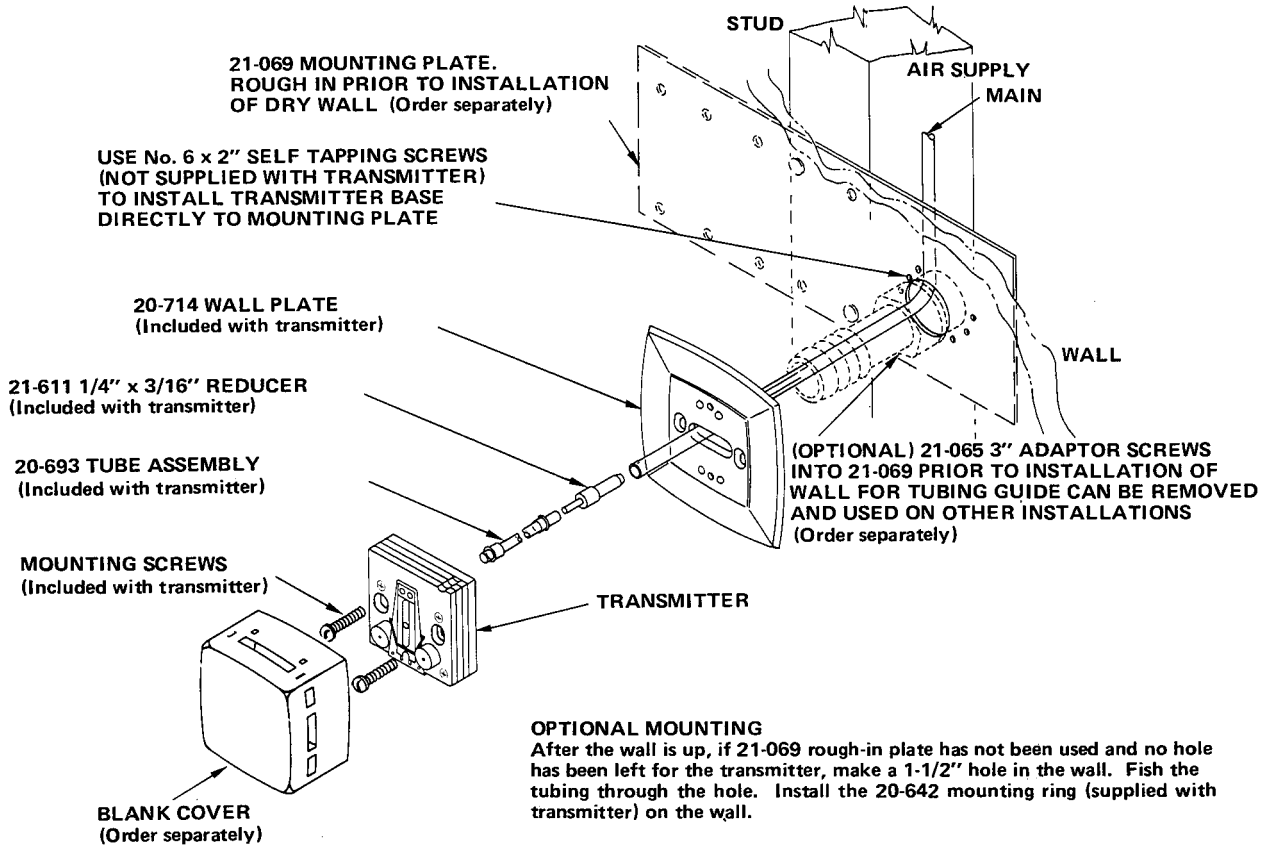


Figure-1 2220-053 Stud Mounting.

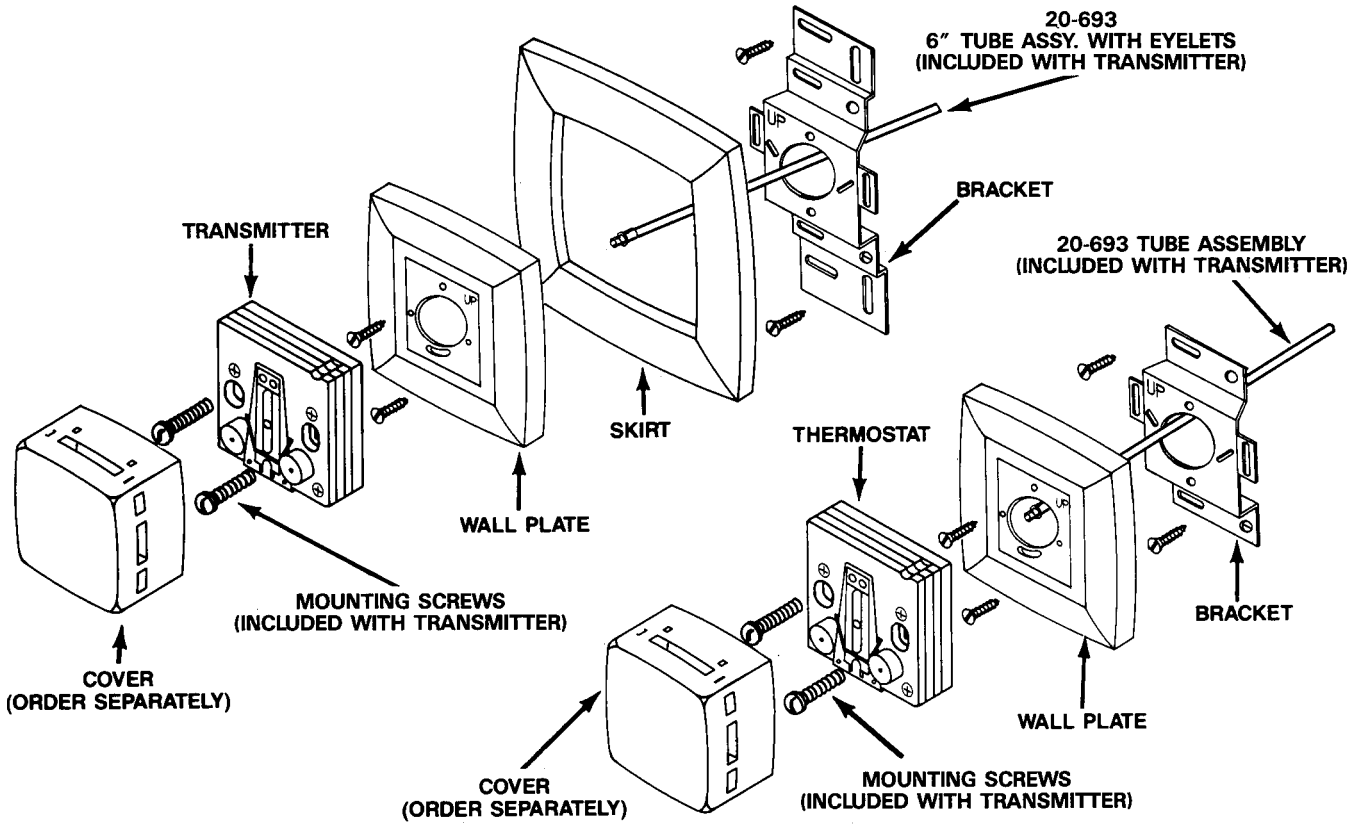


Figure-2 2220-053 with 22-022 Mounting Kit.

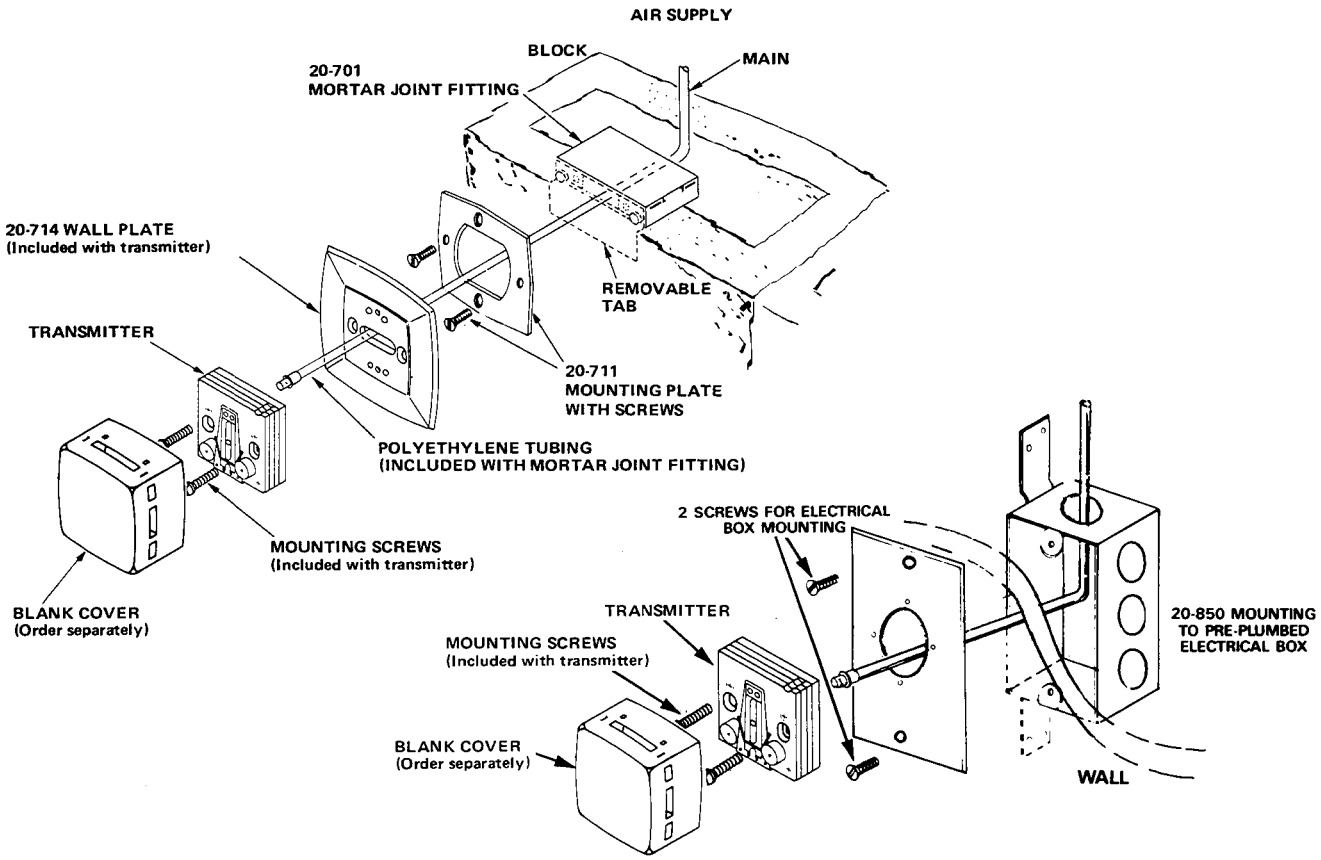


Figure-3 2220-053 Installation Using Mounting Box in Masonry Wall.

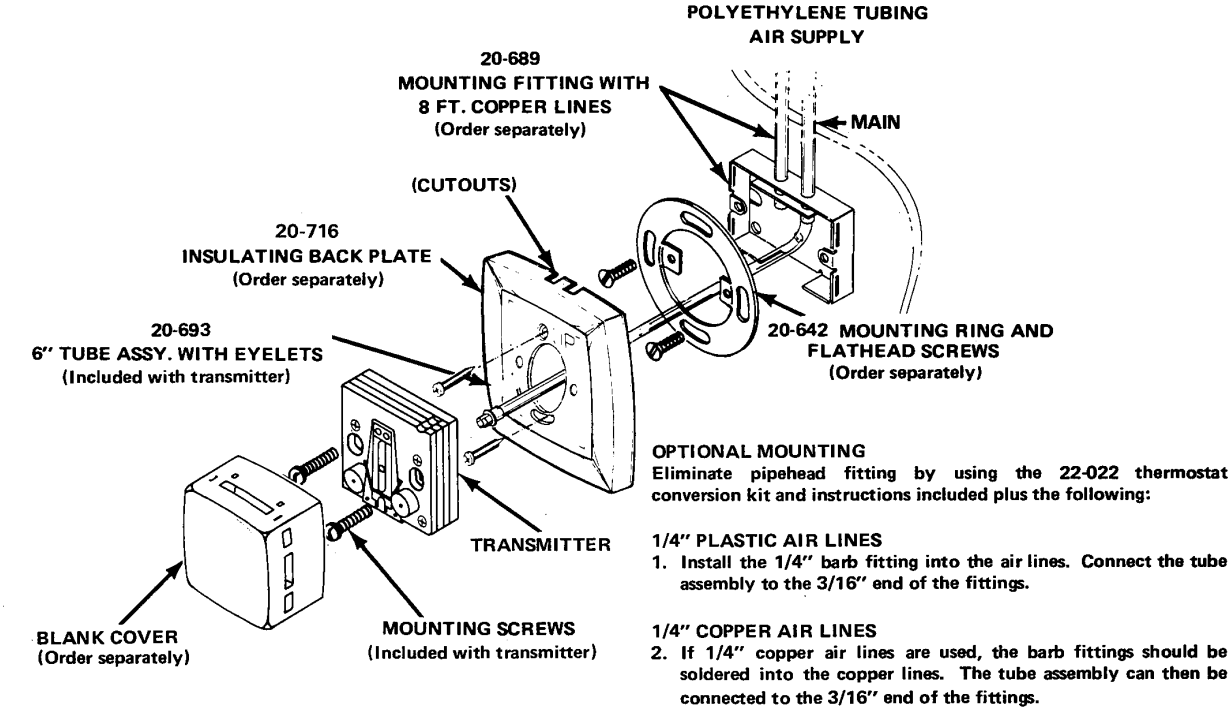


Figure-4 Typical 2220-053 Surface Mount, Pipehead Application.

F-24580-2

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