

Temperature Humidity Transmitter



The TH1-M are single block RH and temperature microprocessor transmitters, temperature configurable. The TH1-MA is a passive transmitter with a 4...20mA output and 10...30Vdc power supply; the TH1-MV is a transmitter with a 0...1V standard voltage output and 5...35Vdc power supply. Sensors are mounted at the end of a plastic tube: a capacitive humidity sensor and a Platinum temperature sensor (100Ω @0°C).

The instrument can be reprogrammed by means of a key, and no jumper or potentiometer actions are required. The humidity input can be recalibrated by using two saturated solutions: the first one at 75%, the second one at 33%; the 0%RH...100%RH relative humidity range is fixed, 4mA (or 0Vdc) correspond to 0%RH, 20mA (or 1Vdc) equal 100%RH.

Temperature standard configuration is -40...+80°C, corresponding to 4...20mA and 0...1Vdc, respectively. The user can configure the temperature output in ranges different from the standard one by means of a Pt100 simulator or of a set of fixed resistances, provided that it is included in the -40°C...+80°C range with a minimum amplitude of 25°C. Two LEDs give alarm indications (temperature exceeding set range, sensor breakage or short-circuit) and help the operator when programming.

Technical Data

Measuring Range	-40°C...+80°C 0...100%RH.
Power Supply	TH1-MA : 10...30Vdc TH1-MV : 5...35Vdc (2mA)
Current Output	4...20 mA (TH1-MA)
Voltage Output	0...10 Vdc (TH1-MV)
Operating Temperature	-40 ...+80°C
Humidity Accuracy	±1.5%RH (0...90%RH) ±2.0%RH (for the remaining range values)
Temperature Accuracy	±0.15°C ±0.1% of measurement
Maximum Length	TH1-MA : 200 m TH1-MV : 10 m

Drawing

