

TEP-M TEMPERATURE TRANSMITTER / CONTROLLER

TEP-M Modbus temperature transmitter is designed for pipe strap-on installations, for heating and cooling applications. Transmitter information can be used to control other device in the HVAC system.

Temperature is measured by a Pt1000 sensor element. The sensor element resistance information is converted into a 0...10 V signal and this voltage signal is available also via Modbus. The temperature range can be chosen at the commissioning.

TEP-M settings can be changed by using the ML-SER tool. One point field calibration of the transmitter can be executed, the temperature output can be changed to the controller function and the communication settings of the Modbus can be configured.

TEP-M transmitter can be equipped with a 3.5-digit liquid crystal display option TE-N V2. The display resolution is 0.1 °C.

Housing is made of heat resistant plastics. The bayonet cover and the terminal blocks tilted to 45° make an easy installation. Transmitter is mounted on the pipe by means of an adjustable tie.

Range selection

0...+50 °C	*0...+100 °C	-50...+50 °C	-50...+150 °C
S1 S2	S1 S2	S1 S2	S1 S2
● ●	● ●	● ●	● ●

* = factory setting

Output signal

0...+50	0...+100	-50...+50	-50...+150	Signal
0 °C	0 °C	-50 °C	-50 °C	0 V
25 °C	50 °C	0 °C	50 °C	5 V
50 °C	100 °C	50 °C	150 °C	10 V



Technical data:

supply voltage	24 Vac/dc < 1 VA (22...30Vac/dc)
sensor	Pt1000 EN 60751/B
output 1	0...10 Vdc < 2 mA (temp. / controller)
output 2	RS-485 Modbus/RTU
temperature range	selectable
pipe	Ø 32...90 mm
housing	plastics (< 120 °C)
protection class	IP54, cable entry or stem down
cable entry	M16
accuracy	± 0.5 °C (at 50 °C)
ambient temperature	0...+60 °C
time constant	5 s

Wiring:

1	supply 24 Vac/dc
2	0 V
3	output 0...10 Vdc (temperature / controller)
4	Modbus A+
5	Modbus B-

Ordering guide:

Model	Product number	Description
TEP-M	117Z080	Modbus strap-on temperature transmitter
TE-N V2	1170250	display module (cover)
ML-SER	1139010	transmitter commissioning tool

Products fulfill the requirements of directive 2004/108/EC and are in accordance with the standards EN61000-6-3: 2001 (Emission) and EN61000-6-2: 2001 (Immunity).