

TEAT-M TEMPERATURE TRANSMITTER / CONTROLLER

TEAT-M temperature transmitter is designed for measuring heating and cooling water temperatures in HVAC automation systems. The transmitter can also be used for air temperature measurements from air ventilation ducts, for example.

The temperature is detected by a Pt1000 sensor element. The sensor element resistance information is converted into a 0...10 V signal. The temperature can also be read via Modbus. The temperature range can be chosen at the commissioning.

The transmitter settings can be changed by using the ML-SER commissioning tool. The tool can be used to make one point field calibration and to change the temperature output to controller output. Modbus parameters are also set by using the ML-SER tool.

The transmitter can be equipped with a TE-N V2 display that has resolution of 0,1 °C.

Housing is made of heat resistant plastic. The bayonet cover and the terminal blocks are tilted to provide easy installation.

When measuring water temperature, the transmitter is always installed in a pocket. The pockets are available in various materials. See more information from the TEAT pocket data sheet.

When measuring air temperature, the transmitter can be installed to the duct with the MT4270 flange.

Selecting the measuring range

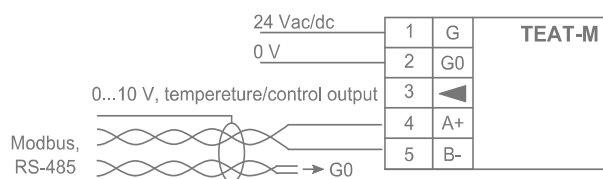
0...+50 °C	*0...+100 °C	-50...+50 °C	-50...+150 °C
S1 S2	S1 S2	S1 S2	S1 S2
● ●	● ●	● ●	● ●

* = 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

Wiring



Technical data

Supply	24 Vac/dc (22...30 V) < 1 VA
Sensor	Pt1000 EN 60751/B
Output	0...10 Vdc < 2 mA (temperature / controller)
Measuring range	selectable
Accuracy	±0,5 °C (at 50 °C)
Time constant	5 s
Communication	Modbus RTU (RS-485) 9.6*/19.2/38.4/56.0 kbit/s, 8 data bits, parity none*/odd/even
Measuring probe	
dimensions	Ø 6 mm x 85 mm
material	AISI 316L (acid-proof steel)
Housing	
material	plastic (< 120 °C)
protection class	IP54, cable gland or measuring probe downwards
cable gland	M16
Ambient temperature	0...+60 °C
Pocket	
dimensions	Ø 8 mm x 80 mm
thread	R ½"
pressure class	PN16

* = Factory setting

Ordering guide:

Model	Product number	Description
TEAT-M	117Z070	Modbus temperature transmitter for 80 mm pocket
AT 80	1170010	Ø 8 mm x 80 mm stainless steel pocket
ATM 80	1170030	Ø 8 mm x 80 mm brass pocket
ATH 80	1170020	Ø 8 mm x 80 mm acid-proof steel pocket
NOTE: Other lengths also available for transmitters and pockets.		
TE-N V2	1170250	display module (cover)
ML-SER	1139010	transmitter commissioning tool

Products fulfil 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).