

TEAT-M TEMPERATURE TRANSMITTER / CONTROLLER

TEAT-M Modbus temperature transmitter is designed for measuring the temperature of heating and cooling water. Transmitter information can be used to control other device in the HVAC system.

Temperature is measured by a Pt1000 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.

TEAT-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.

TEAT-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. Sensor is always installed in a pocket of stainless (AT80) or acid-proof steel (ATH80) or brass (ATM80). The pocket is mounted to the pipe by means of threads R $\frac{1}{2}$ ".

There are available pockets for different immersion lengths of the sensor. ATH 300 pocket is for 300 mm TEAT transmitter stem. See specific data sheet of the TEAT pockets for further information.

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
mounting	R $\frac{1}{2}$ ", threads
stem (sensor)	Ø 6 mm x 85 mm, material AISI316
stem (pocket)	Ø 8 mm x 80 mm steel/brass
housing	plastic (< 120 °C)
protection class	IP54, cable entry or stem down
cable entry	M16
accuracy	± 0.5 °C (at 50 °C)
time constant	5 s
pressure rating	PN16
ambient temperature	0...+60 °C

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
TEAT-M	117Z070	Modbus temperature transmitter for 90 mm pocket
AT 80	1170010	Ø 8 mm x 90 mm stainless steel pocket
ATM 80	1170030	Ø 8 mm x 90 mm brass pocket
ATH 80	1170020	Ø 8 mm x 90 mm acid-proof steel pocket
ATH 300	1170021	Ø 8 mm x 310 mm acid-proof steel pocket
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).