

TENA LL FAST RESPONSE IMMERSION TRANSMITTER / CONTROLLER

TENA LL 2-wire temperature transmitter is designed for hot water temperature control 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 4...20 mA signal. The temperature range can be chosen at the commissioning.

TENA LL settings can be changed by using the ML-SER tool. One point field calibration of the transmitter can be executed and the temperature output can be changed to the controller function.

TENA LL 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. The material of the stem is stainless steel for prolonged life. Sensor is installed to the water pipe by means of the R1/2" threads.

There are also available 50 mm and 210 mm immersion length transmitter versions for alternative installations.

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	4 mA
25 °C	50 °C	0 °C	50 °C	12 mA
50 °C	100 °C	50 °C	150 °C	20 mA



Technical data:

supply voltage	15...35 Vdc
sensor	Pt1000 EN 60751/B
output	4...20 mA (temperature / controller)
temperature range	selectable
connection	R 1/2" thread
stem	Ø 4 mm x 85 mm, material AISI316
housing	plastics (< 120 °C)
protection class	IP54, cable entry or stem down
cable entry	M16
pressure rating	PN16
accuracy	± 0.5 °C (at 50 °C)
ambient temperature	0...+60 °C
transmitter type	2-wire
time constant	2.5 s

Wiring:

- 1 + (-) temperature signal or controller 4...20 mA
- 2 - (+) temperature signal or controller 4...20 mA

NOTE: The electrical wiring is polarity free.

Ordering guide:

Model	Product number	Description
TENA LL	1177050	fast response temperature transmitter
TENA LL-50	1177051	fast response temperature transmitter, length 50 mm
TENA LL-210	1177053	fast response temperature transmitter, length 210 mm
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).