

The E-MST-27 miniature temperature transmitter is designed for use in an industrial environment.

- The package of the device contains; the Device, User manual and Guarantee certificate.
- After opening the package, please visually check whether the type of the device is suitable for the order, whether the above-mentioned parts are missing and whether the device has been damaged during shipment.
- Before installing and operating the controller, please read the user manual thoroughly.
- The installation and configuration of the controller must only be performed by a person qualified in instrumentation.
- Keep the unit away from flammable gases, that could cause explosions.
- Do not use alcohol or other solvents to clean the controller. Use a clean cloth soaked in water tightly squeezed to gently wipe the outer surface of the controller.
- It is not used in medical applications.



1. DESCRIPTION

E-MST-27 miniature temperature transmitter is a 2-wire transmitter that measures temperature with an internal resistance thermometer and converts it to the standard 4-20 mA signal. The transmitter can measure temperatures between -50°C and 200°C. Device power supply and output signal is connected to M12 connector as 2 wire connection. The operating voltage ranges from 10 to 30 volts DC. It is commonly used in the food industry to convert temperature (internal resistance thermometer) values to the standard 4-20 mA signal for transfer to PLC or other displays. E-MST-27 series transmitters can be configured using special PC software provided by Elimko.

2. TECHNICAL SPECIFICATIONS

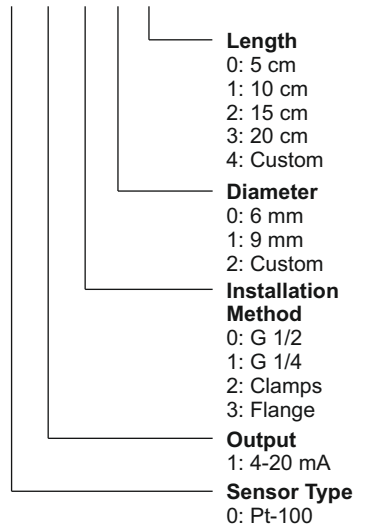
Table 1: E-MST-27 Technical Specifications

Operating Voltage	10 - 30 V DC
Voltage Drop	10 V DC
Power Consumption	0.5 V A (When operating voltage is 24 V DC)
Sensor Type	Resistance Thermometer: Pt-100
Measurement Range	Between -50 °C and 200 °C
Measurement Accuracy	±0.25 °C
Error Signal	Sensor Break
Output Type	4 - 20 mA (2 wire)
Output Accuracy	±0.1 % Full Scale
EMC Immunity	≥ ± 0.5% Full Scale
Load Resistance	[Voperating (min) - 10] x 50 Ω
Operating Temperature	Between -20 °C and 85 °C (*)
Storage Temperature	Between -30 °C and 85 °C
Protection Class	IP 67

* The temperature of the converter section should not exceed 85 °C.

3. TYPE CODING

E - MST - 27 - U - W - X - Y - Z

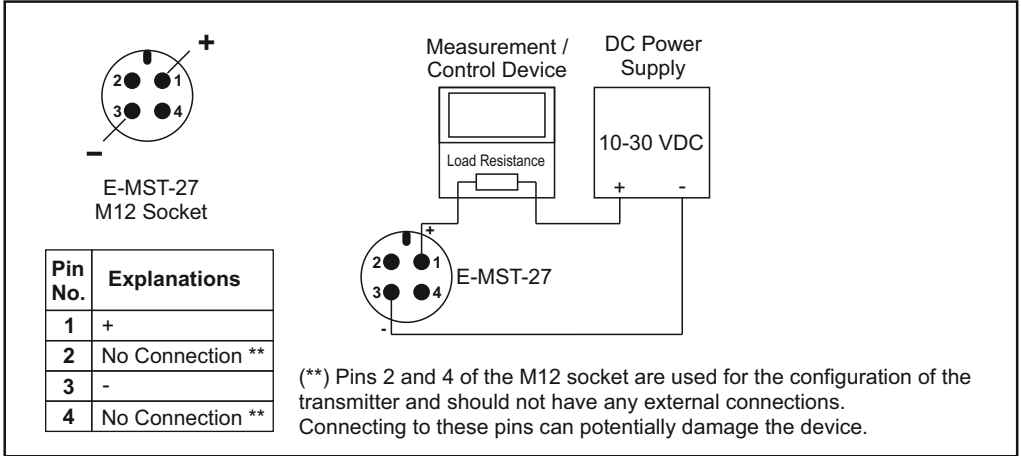


4. USAGE

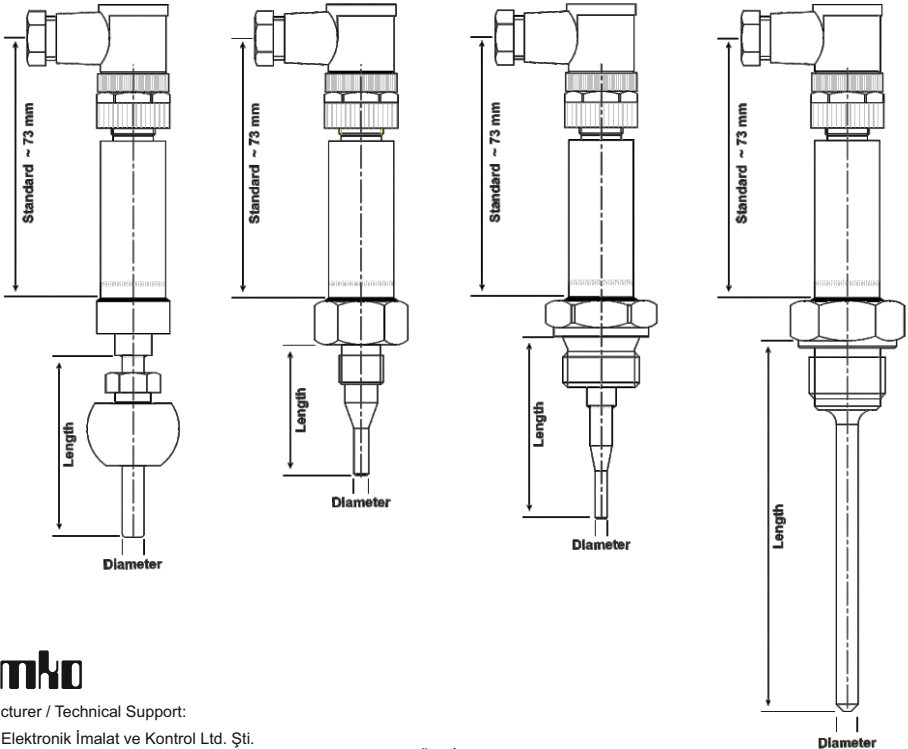
The connections should be made according to section **5.WIRING DIAGRAM**. When the operating voltage is applied, it starts working. The E-MST-27 device reads the temperature information from the internal resistance thermometer (Pt-100) sensor.

It adjusts the output current based on the configured scale values. It can measure temperatures between -50°C and 200°C. Therefore, scale values can be entered within this range. In case of an error (such as a sensor break), the output current can be selected as the lower value (4 mA) or the higher value (20 mA). Additionally, the output current can be configured by the user to operate in 4-20 mA or 20-4 mA format. M12 connector is also used for E-MST-27 device configuration. The device can be connected to a PC using the E-IB-14 device to adjust the scale, error signal level, and output format.

5. WIRING DIAGRAM



6. DIMENSIONS



Manufacturer / Technical Support:

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