Ethernet thermometer TME

a thermometer with Ethernet data transmission

ASCII, HTTP (WEB), SMTP (e-mail), and SNMP protocols

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BASIC INFORMATION

Description

TME is a simple temperature sensor with an Ethernet interface. It measures temperatures from –55 °C to +125 °C. The measured temperature value can be read in several ways, including through an intranet.

Communication is controlled by different TCP/IP protocols. Thanks to that, a method suitable for a given application can be selected. The temperature value is sent in an ASCII format, Spinel compatible; no conversion of the value is necessary. The temperature value is sent directly in degrees Centigrade (Celsius). The system allows communication with the aid of SNMP protocol (UDP), or by sending an e-mail if the temperature goes outside of preset limits.

You can easily insert the temperature from TME into your own website (HTTP GET). Another option is to read the temperature as an XML file.

Features

- Temperature measurements in the range from –55 °C to +125 °C; resolution 0.1 °C
- Data transmission with the aid of TCP/IP protocols (10/100 Ethernet)
- Internal WEB pages
- Data transmission in a simple ASCII format (Spinel) with no necessity of conversion
- How to easily insert temperature into a website
- E-mail alert if the value goes outside of preset limits
- SNMP protocol
- Possible installation on a DIN rail

Software

- An user friendly configuration program is included free of charge
- A demo program, including commented source code, is also free of charge

Acquiring temperature values from a TME thermometer

1) Internal website

When the thermometer's IP address is set in an Internet browser,[1] a website is brought up displaying the actual temperature value and the set temperature limits. A Czech or English language version of this website can be chosen within the settings. The temperature value can be shown in degrees Celsius or Fahrenheit. Either a graphical display resembling a mercury thermometer can be selected, or a plain text. *(Cf. also page 21.)*

2) XML file

At http://[IP_address_of_thermometer]/tme.xml, the file in XML format contains the actual temperature value, the name of the measurement location, and the temperature limits. *(Cf. also page 22.)*

3) Inserting the temperature value into a website using a script (HTTP GET)

Thermometer TME enables a periodic call for a script (e.g., PHP or ASP) on a given address – for example, a WEB server. *(Cf. also page 24.)*

4) SNMP protocol

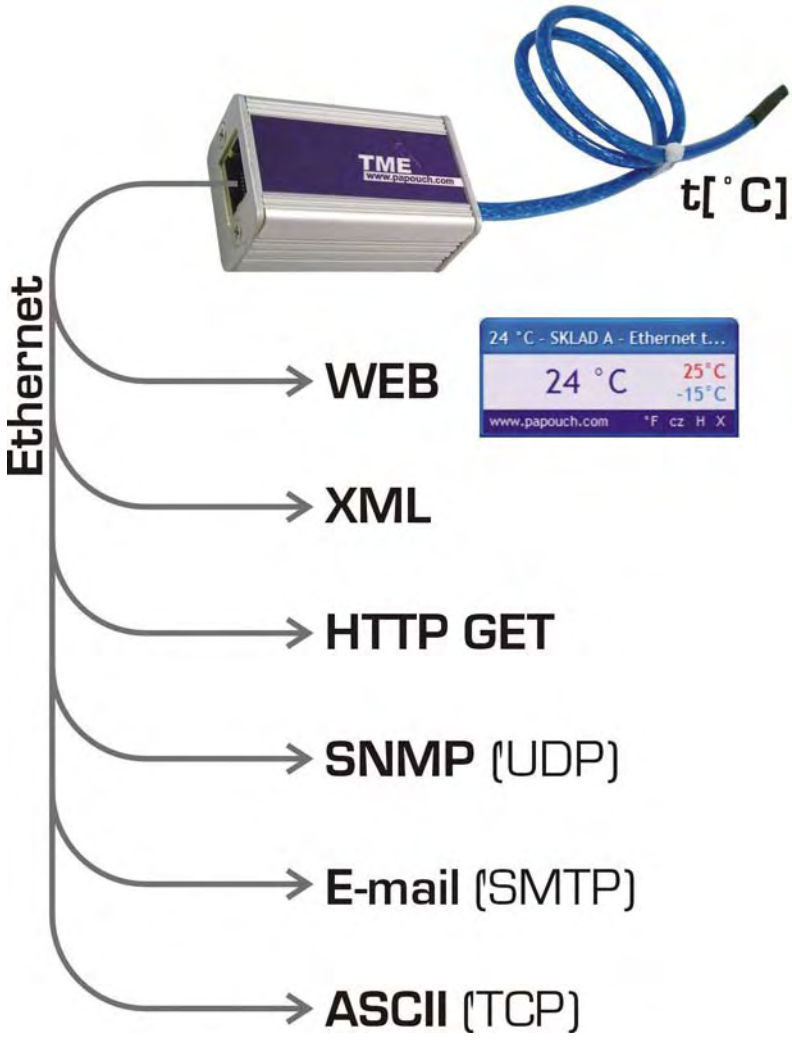
According to the settings, TME sends out SNMP traps if the temperature value is outside of the set limits. Regular transmission of a trap with the actual temperature value is also possible. *(Cf. also page 27.)*

5) E-mail

According to the settings, the thermometer sends E-mails with information if the temperature value goes outside of the set limits. *(Cf. also page 29.)*

6) TCP protocol

The thermometer behaves as a server and waits for a connection request on the set IP address and port. Upon connecting, it sends the Client temperature data in ASCII format. *(Cf. also page 26.)*



Installation options

Mounting:

- Without a holder *(standard)*
- With a DIN rail mount

Length of cable:

- 3 m *(standard)*
- 10 cm to 20 m

Sensor workmanship:

- Sealed in shrinking plastic tubing *(standard)*
- In a metal tube, ø 6 mm

Please do not hesitate to contact us if you have specific requirements for the Ethernet thermometer TME module's workmanship and functionality.

Contents of the package

- TME Thermometer with a 3-m cable (the temperature sensor is sealed in shrink-foil wrapping).

Accessories

- The power supply unit with cable and the corresponding connector (3.8 × 1.3 mm).
- Power-supply cable, 2 m long, with a 3.8 × 1.3 mm connector. The other end is open, with conductors to be wired into the power source.
- A power-supply cable from a USB 2.0 port.