

Thermomultiplexer TMUX: Thermometer with 30 sensors



The thermomultiplexer TMUX is a universal thermometer with an RS232 / RS485 interface. It has 30 channels for temperature measurement using thermoelements as temperature sensors. The thermoelement technique allows not only temperature measurement at a given point, but also enables determination of the temperature difference between any two points.

In addition 5 voltages in the range 0...1 V can also be measured.

A 60 kByte memory stores the data temporarily until required.

Calibration and other important data are stored in an EEPROM and are therefore available even if the power supply fails.

The time interval between measurements, their accuracy, the measurement program and the way in which the data are handled by the memory, etc. can be programmed via the serial interface.

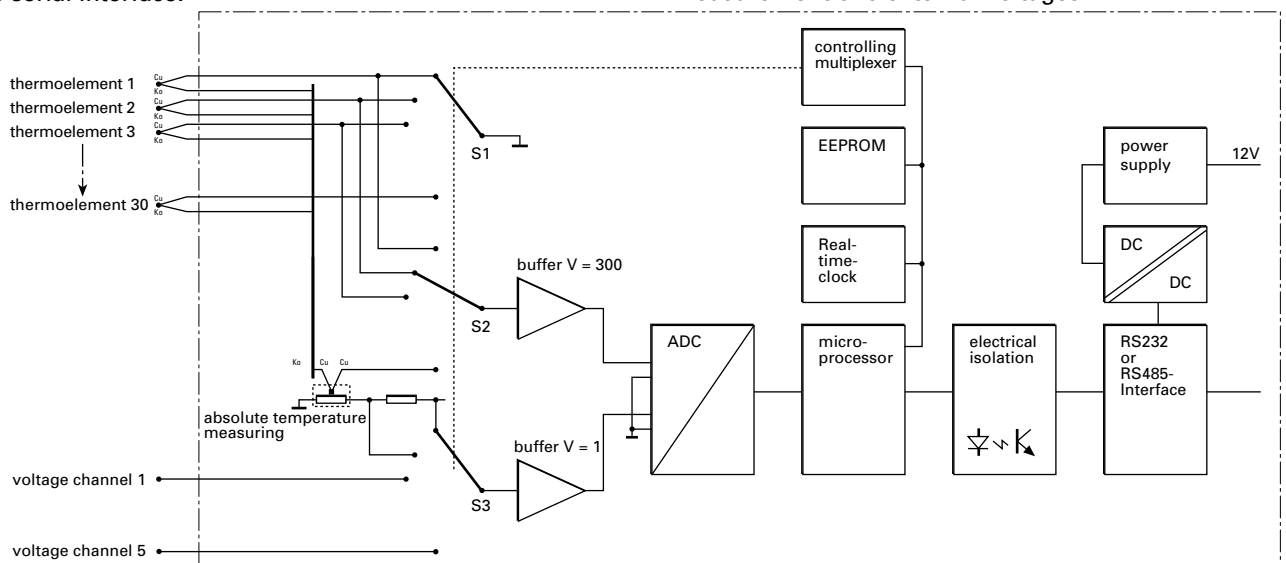
Applications:

- Process surveillance
- Food and packaging industries
- Temperature surveillance
- Structural engineering
- Meteorology
- Hydrology

Operational principle:

The two switches S1 and S2 can be positioned independently of each other. As a result, it is possible to measure the potential difference between any pair of the 30 thermoelements or to use any thermoelement as an absolute thermometer.

Switch 3 is used in the measurement of the absolute temperature. The remaining channels can be used for the measurement of 5 external voltages.



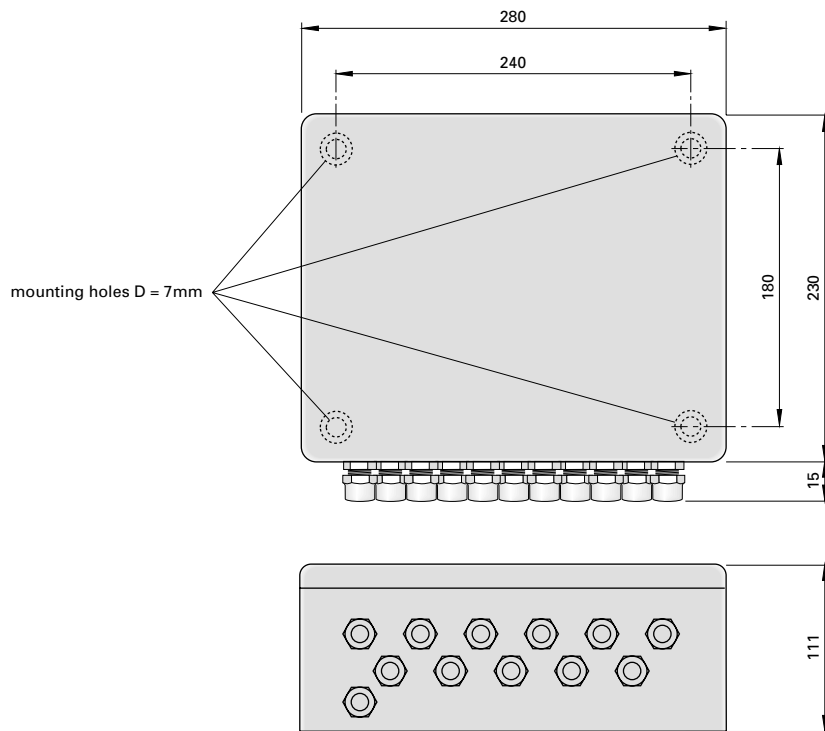
Technical Data

Temperature measurement No. of channels: 30 Sensors: copper-constantan Measurement range: -50 ... + 50 °C Resolution: 0.01 °C Accuracy over the full measurement range: +/- 0.06 °C Accuracy of temp. difference measurements +/- 0.06 °C		Memory Capacity: 60 000 Byte	
Voltage measurement No. of channels: 5 Measurement range: 0 ... 1000 mV Resolution: 0.1 mV Accuracy: +/- 1 mV		Interfaces Baud rate: 2400 bps (fix) Standards: RS232 interface electrically isolated without hardware handshake or RS485 electrically isolated.	
Power supply DC: 10.5 ... 13.5V Current at start up: 200 mA Normal operation: 80 mA Stand by: <0.01 mA Heating for use in the open air: 24 ... 48 V AC		EMC Surge EN61000-4-5, Installation class 4 ESD EN61000-4-2, 8 kV contact discharge 15 kV discharge through the air Burst EN 61000-4-4, 2 kV, 5/50 ns, 5 kHz	

Special requirements

We would be happy to discuss your individual requirements regarding sensors, installation, specific measurement problems, and software adaptations and customise our products to suit your needs.

Dimensions



Weight: 4.3 kg

Details for Ordering

Themomultiplexer TMUX-RS232
 Themomultiplexer TMUX-RS485

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