

Microprocessor Based Thermometer/Datalogger Model TKP- 402FI



Description

The microprocessor based, pocket size thermometer model TKP-402 FL is designed to precise measurement and recording temperature. Its easy routine maintenance, small size and battery supply provides an excellent comfort of recording and wide application in scientific research, environment measurement, food industry and many others.

The TKP - 402FL logger is also equipped with internal nonvolatile memory enabling to record up to 50 000 records at intervals ranging from 1 minute to 99 hours. Results recorded in the internal memory might be transferred to the computer PC directly connected to the TKP - 402FL's RS-232 output. In the field operation a **portable, battery powered printer can be directly connected** to the TKP - 402FL thermometer. The user can select chart or graphs printout using a thermometer's keyboard.

This sophisticated thermometer covers temperature range from **-60°C to +200°C** with resolution 0,01°C and achieve accuracies $\pm 0,05\%$ of the range. Higher accuracies, greater than typical electronic thermometers are achieved through a unique linearising technique.

Application of the internal microprocessor ensure a minimal measuring error and a large alphanumeric easy-to-read LCD display enable simply read-out of results. Nonvolatile memory stores setup conditions (RS-232, log interval, probe calibration) and also user's setting selected from the keyboard. The meter also includes a real time clock which shows time, day, month and year.

The meter accepts a 4 wire Pt - 100 probe, which allows to apply probes with very long cable (up to 10 meters). The TKP - 402FL features a quick

disconnect panel input for a probe. During the process of recording, the thermometer of the logger allows read-out with 0,01°C resolution of the current temperature and also minimal and maximal temperatures that were in measuring area between switching on and off the meter.

Technical data.

Input :	Platinum Pt - 100 probe (4 wire)
Temperature range:	-60°C to +200°C
Resolution of current temperature:	0,01°C
Resolution of the min/max temperature :	0,01°C
Accuraccy of temperature measurement:	$\pm 0,05\%$ of the range
Temperature display :	4 x 16 alphanumeric LCD display
Probe calibration:	automatic matching at 0°C
Log interval:	from 1 minute to 99 hours (programmable through the meter's keybroad)
Start/End of the logging :	through the meter's keyboard
Data logging:	
- storing in the nonvolatile, internal memory and further transferable to the PC and/or to the portable printer with the time and date stamp as a chart of graphs	
- on-line output to the PC through RS-232 serial interface for further analysis, storage and hard copy printouts	
Digital output:	RS - 232 serial interface output
Internal memory:	up to 50 000 records
Power:.....	4 x 1,5 V batteries
Housing:	black plastic
Dimensions:	146 x 82 x 39 mm