

303 and 306 Temperature Meters

The Martel Electronics 303 and 306 Temperature Meters provide a variety of options for the accurate measurement of temperature. Both instruments provide $\pm 0.2\%$ of reading or better accuracy and $0.1^\circ\text{C}/^\circ\text{F}$ resolution over their measurement ranges. Both feature input protection to 60 VDC or 24 Vrms. REL, HOLD, and MIN/MAX functions simplify use. Both provide automatic power off to preserve and extend battery life. The 306 provides data logging for up to 16,000 records.



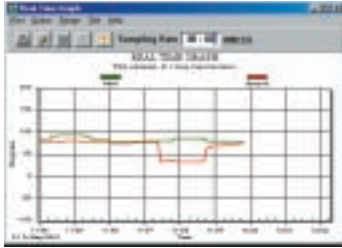
Features:

- ▲ Dual inputs
- ▲ -200 to +1370 °C measurement range
- ▲ Dual display (303), triple display (306)
- ▲ Auto power off
- ▲ Time function (306)
- ▲ RS232 interface
- ▲ 16,000 record data logging (306)

303/ThermoLink® Software

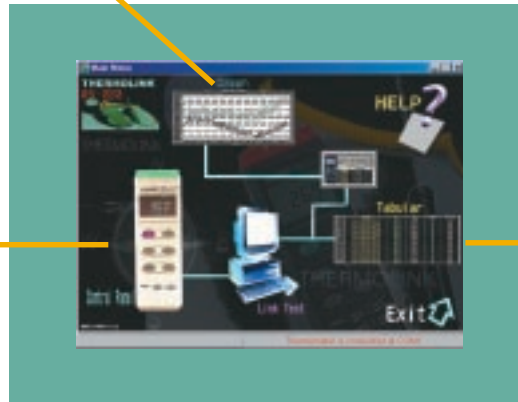
The Martel 303 Temperature Meter can be supplied with ThermoLink software and an RS-232 cable which connects the 303 to an unused COMM port on a PC or laptop. With the 303 connected to the PC and the ThermoLink software running, realtime control and analysis of its data can be achieved. With an extended length RS-232 cable, the 303 Temperature Meter and PC can be used as a remote temperature measurement system.

On start-up, the ThermoLink software automatically scans the available COMM ports on the PC or laptop, and establishes communication with the 303 Temperature Meter. Once communications is established, temperature data is continually downloaded from the 303. The data sampling rate can be adjusted in a number of ways.



Clicking on the Graphical section of the main screen opens a graphic display of the data being downloaded in realtime from the 303. At the top of the display is a text field where the time interval between data samples can be adjusted. A number of the parameters of the graph can be modified to better display the range of data being displayed. Controls are provided for starting, stopping, and pausing the recording of data to the graph.

Clicking on the Control Panel section of the main screen opens an image of the 303, which provides interactive, realtime control of all the 303's functions.



Clicking on the Auto Arrange section of the main screen opens the Control Panel, Realtime Graph, and Tabular windows, arranged in a non-overlapping display.

Clicking on the Help section of the main screen accesses an indexed HTML document that provides detailed information on menus and controls within the ThermoLink software.

DATE	TIME	TEMP	UNIT	TEMP	UNIT	TEMP	UNIT
01/01/00	0:00:00	98.3	F	304	F	A	
01/01/00	0:00:05	98.3	F	304	F	A	
01/01/00	0:00:10	98.3	F	304	F	A	
01/01/00	0:00:15	98.3	F	304	F	A	
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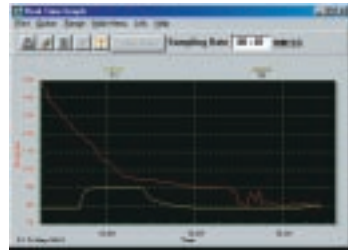
306/ThermoLog® Software

The Martel 306 Temperature Meter is supplied with ThermoLog software and an RS-232 cable which connects the 306 to an unused COMM port on a PC or laptop. With the 306 connected to the PC and the ThermoLog software running, realtime control and analysis of its data can be achieved. With an extended length RS-232 cable, the 306 Temperature Meter and PC can be used as a remote temperature data logging and measurement system.

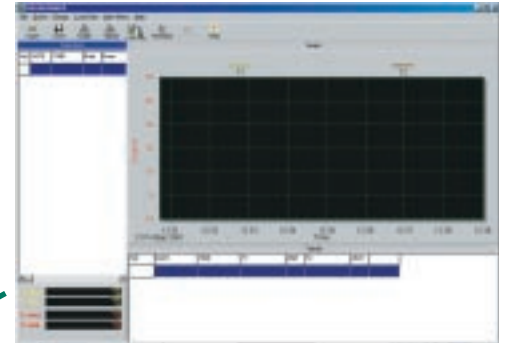
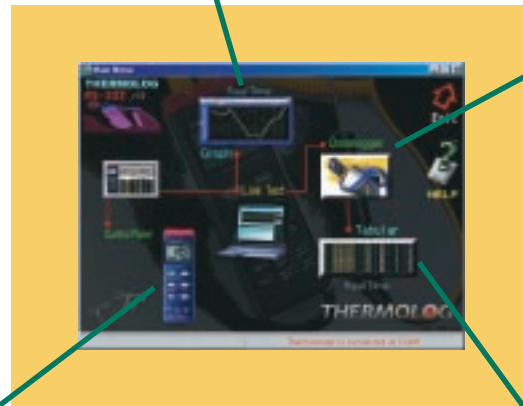
On start-up, the ThermoLog software automatically scans the available COMM ports on the PC or laptop, and establishes communication with the 306 Temperature Meter, as shown to the right. Once communications is established, temperature data is continually downloaded from the 306. The data sampling rate can be adjusted in a number of ways.



Clicking on the Graphical section of the main screen opens a graphic display of the data being downloaded in realtime from the 306. At the top of the display is a text field where the time interval between data samples can be adjusted.



A number of the parameters of the graph can be modified to better display the range of data being displayed. Controls are provided for starting, stopping, and pausing the recording of data to the graph.



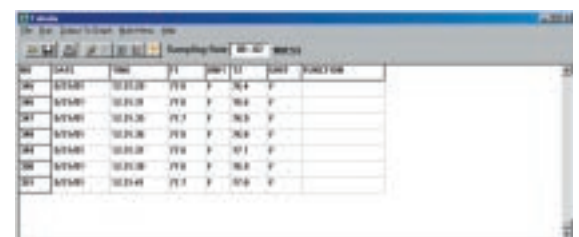
Clicking on the DataLogger section of the main screen opens the data logging function. Data stored in the 306 Data Logging Temperature Meter can be downloaded and displayed for analysis.

Clicking on the Control Panel section of the main screen opens an image of the 306, which provides interactive, realtime control of all the 306's functions.



Clicking on the Auto Arrange section of the main screen opens the Control Panel, Realtime Graph, and Tabular windows, arranged in a non-overlapping display.

Clicking on the Help section of the main screen accesses an indexed HTML document that provides detailed information on menus and controls within the ThermoLog software.



Time	Temp	Unit	Max	Min	Avg
00:00:00	31.3	°C	31.3	31.3	31.3
00:00:01	31.3	°C	31.3	31.3	31.3
00:00:02	31.3	°C	31.3	31.3	31.3
00:00:03	31.3	°C	31.3	31.3	31.3
00:00:04	31.3	°C	31.3	31.3	31.3
00:00:05	31.3	°C	31.3	31.3	31.3
00:00:06	31.3	°C	31.3	31.3	31.3
00:00:07	31.3	°C	31.3	31.3	31.3
00:00:08	31.3	°C	31.3	31.3	31.3
00:00:09	31.3	°C	31.3	31.3	31.3

Clicking on the Tabular section of the main screen opens a tabular display of the data being downloaded in realtime from the 306.

Model 306

The 306 is a dual-input, triple display, Type-K temperature meter with a measurement range of -200 to +1370 °C. HOLD, TIME, and MAX/MIN functions, and temperature unit selection are available at the push of a button. Up to 16,000 records can be stored for downloading to a PC using the supplied RS232 cable and graphing/analysis software.



Specifications (25°C unless otherwise noted)

Inputs	Number	2
	Measurement Range	
	303 Type-J	-200 °C to +760 °C -200 °F to +1,400 °F
	Type-K	-200 °C to +1,370 °C -328 °F to +2,498 °F
Accuracy	306 Type-K	-200 °C to +1,370 °C -328 °F to +2,498 °F
	Protection	60 VDC or 24 Vrms AC max.
	303	±0.1 % of reading +0.7 °C ±0.1 % of reading +1.4 °F
	306	±0.2 % of reading +1.0 °C ±0.2 % of reading +2.0 °F
Resolution	Celsius	0.1 °C
	Fahrenheit	0.1 °F
Display	303	Dual
	306	Triple
Special Features	303	Auto power off, REL function, HOLD function, MAX/MIN function
	306	Auto power off, HOLD function, TIME function, MAX/MIN function; data logging for 16,000 records
Temperature Range	Both	Low battery indicator; RS232 interface
	Operating	0 °C to +50 °C; <80% RH
Power Requirements	Storage	-20 °C to +60 °C
	Battery Type	9 V; NEDA 1604, IEC 6F22, JIS 006P
Mechanical	Dimensions	7.25" L x 2.5" W x 1.2" H (18.4 cm x 6.4 cm x 3.0 cm)
	Weight	7.0 ounces (200 gms); approximate

Accessories (included):

Both: Battery, instruction manual, Type-K bead sensor (2).

306: Above, plus RS232 cable and ThermoLog data logging/analysis software for Windows 95/98/2000.

303: RS232 interface cable and ThermoLink software (SE 300) are available for the 303 as an option. Please consult factory. Other temperature sensor configurations available. Please consult factory.

Temperature Probe Kits

A variety of temperature probe configurations are available for use with the 307 and 308 temperature meters. All are Type-K, and feature ± 2.2 °C/ $\pm 0.75\%$ or ± 3.9 °F/ $\pm 0.75\%$ accuracy.



TP-K01 — Bead Probe

-50 °C to 200 °C; -58 °F to +392 °F

TP-K02 — Immersion Probe

-50 °C to 700 °C; -58 °F to +1,292 °F

TP-K03 — Surface Probe

-50 °C to 400 °C; -58 °F to +752 °F

TP-K04 — Piercing Probe

-50 °C to 600 °C; -58 °F to +1,122 °F

TP-K05 — Surface Probe

-50 °C to 400 °C; -58 °F to +752 °F

TP-K06 — Air & Gas Probe

-50 °C to 800 °C; -58 °F to +1,504 °F