F100
Precision Thermometer
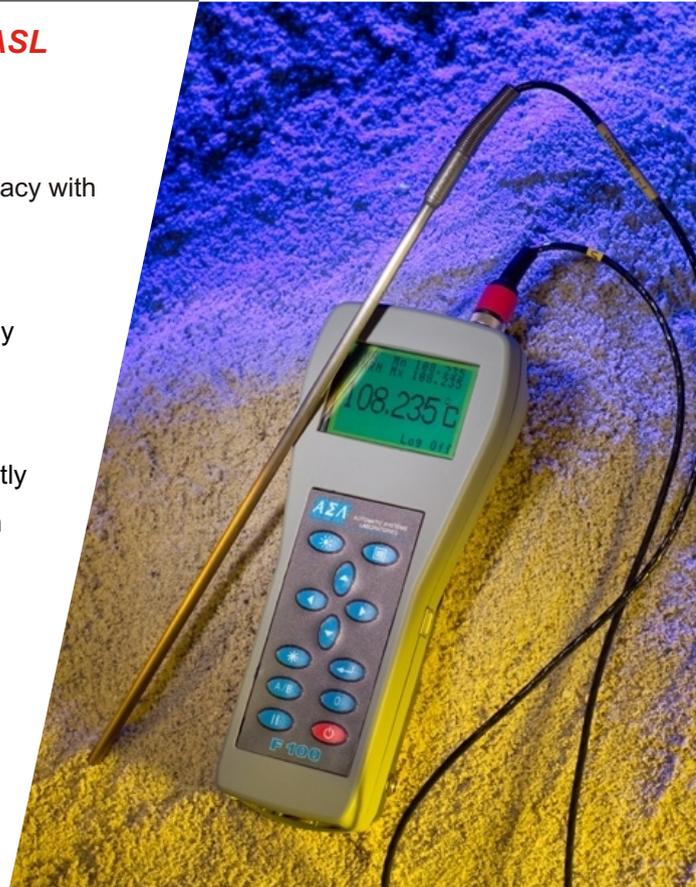
ΑΣΛ
AUTOMATIC SYSTEMS LABORATORIES

Next-Generation temperature measurement from ASL

NEW High performance handheld 2-channel thermometer for Pt100 and Thermistor probes. If you're looking for a step up in measurement accuracy with a battery powered, handheld thermometer, F100 is for you.

F100 can handle all your needs, with accuracies and resolutions normally associated with a bench top thermometer. Two inputs give you direct temperatures from Pt100 or Thermistor probes, or you can display the temperature difference between them. You can log measurements directly to memory or, if you prefer, use the USB port to control and data log with your PC. F100 will display for you a statistical analysis of your measurements, with average value, min and max values and standard deviation. Because F100 will display in ohms as well as temperature, you can even use it to calibrate one probe against another. Most instruments require you to enter calibrated probe data into memory to optimise measurement accuracy, which can mean a lot of data entering if you change probes regularly. With ASL's SMART connector on your probes, you only need to store the data once - in the connector! The calibration data stays with the probe - permanently. You can even use it on another F100 without any further action. The SMART connector saves you time and reduces error. If you have existing calibrated or uncalibrated probes, no problem, F100 automatically registers if a probe is SMART or normal.

F100 offers performance with handheld convenience.

- **Accuracy:** ±0.02°C over full range.

- **Resolution:** 0.001°C.

- **Range:** -200°C to +850°C.

- **Stability:** <0.005°C per year.

- Common inputs for "*SMART*" and normal PT100 and Thermistor probes.

- USB communications port as standard.

- Display in °C, °F, K (Kelvin) or ohms.

- Statistical functions: Average, Min/Max and Standard Deviation.

NEW

F100

°C °F K mV **0.01** °C

Ω

SPECIFICATION

Range	-200°C to +850°C, depending on thermometer probe.
Accuracy	<u>F100 only:</u> ±0.02°C (±20mK).
Resolution	0.001°C.
Stability	Long term: typically <0.002Ω per year (<0.005°C for Pt100).
Temperature co-efficient	<0.00005°C per °C ambient change.
Data entry format	ITS90 and CvD for calibrated probes; or EN60751 for un-calibrated probes.
Probe current	1mA switched d.c. (Pt100); Auto-select 1mA, 25µA & 5µA for thermistors.
Probe types	Pt100 and Pt25 resistance thermometers plus NTC thermistors. Cable length typically 2M.
Maximum cable length	100 metres for Pt100; 30 metres for SMART Pt100.
Thermometer input connectors	2 x 5 pin industrial DIN socket with screw lock to connecting plug, accepting both normal and SMART probes.
Display	Backlit LCD.
Communications	USB interface.
User functions	Display hold, Display zero, One-shot measurement, Measurement log, Statistical analysis - min/max, average, standard deviation.
Operating conditions	Full specification range: +15°C to +25°C. Full operating range: 0°C to +40°C <80%RH non-condensing.
Power	Nickel-Metal Hydride (Ni-MH) rechargeable battery. Charging socket built-in. Low battery indicator.
Dimensions	232mm(L) x 97mm(D) x 53mm(W) nominal.
Weight	500g (1.1 lbs).

Specifications are subject to change without prior notice.

C€ compliant