Next-Generation temperature measurement from ASL

NEW  High Performance 2 or 8-channel Precision Digital Thermometer, for calibrated and uncalibrated Pt100 probes, with great new features for increased usability and lower life-costs.

Using calibrated probes with F200 you choose between storing calibration data into memory in the instrument or into the probe’s proprietary “SMART” connector. Calibration data stays permanently with the probe in this connector, which F200 instantly recognises, ensuring fool proof measurement. Better yet, the ASL “SMART” connectors use the ASL standard 5-pin DIN connector, so you can mix “SMART” and passive connectors on the same input. How’s that for versatility?

Until now, calibration meant losing your instrument to a calibration lab, costing time and money. Not any more. We send you a traceably calibrated device (“TCD”) to connect to F200 and, using a built-in programme, F200 will calibrate itself. You don’t need to use a calibration laboratory, saving you both time and money.

Other exciting new features have been included, like the Probe Temperature Watchdog and the Calibration Status Monitor. Calibrated probes should be used within their calibration temperature limits, outside these and the probe calibration may have been compromised. The Probe Temperature Watchdog keeps you informed.

F200 delivers!  Calibrated or uncalibrated probes, “SMART” or passive connectors  F200 handles them all with style.

- **Accuracy:** ±0.01°C over full range.
- **Resolution:** 0.001°C.
- **Range:** -200°C to +850°C.
- **Stability:** <0.005°C per year.
- Common inputs for both “SMART” and passive connectors.
- Single or differential measurement.
- Galvanically isolated RS232 interface as standard.
- ITS90, EN60751 and CvD temperature conversion.
- Clear vacuum fluorescent display in °C, °F, K or Ω, plus channel selected.
- Self calibrating against traceable external reference.
### F200 Specifications

#### Range
-200°C to +850°C, depending on PRT used.

#### Accuracy
- **F200 only**: ±0.01°C (±10mK).
- **F200 + T100-250**: ±25mK (-50°C to +250°C).
- **F200 + T100-450**: -70°C (±45mK), -40°C to +250°C (±25mK), +250°C to +450°C (±100mK).
- **F200 + T100-650**: -189°C to 420°C (±20mK), +420°C to +550°C (±35mK).

#### Resolution
0.001°C.

#### Repeatability
±2 least significant digits (±0.002°C), included in accuracy.

#### 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 coefficients, Callender van Dusen coefficients, or EN60751 for un-calibrated probes.

#### Probe current
1mA constant current source.

#### Probe types
Pt100 to EN60751 with nominal R0=100 and 25Ω high alpha probes up to 0.00392.

#### Maximum cable length
100 metres of 4 core 19/0.15 SPC/PTFE screened cable.

#### Thermometer input connectors
2 off (2 ch.) or 8 off (8 ch.) 5 pin industrial DIN socket can be used with passive or proprietary “SMART” connector.

#### Communications
Galvanically isolated RS232C: 4KV isolation. Baud rate 9600.

#### Operating conditions
0°C to 50°C, 10-90% RH non-condensing.

#### Power requirements
90 to 264VAC universal IEC 320 input on rear panel, 47-63 Hz, 30VA max.

#### Weight
2.2 lbs.

Specifications are subject to change without prior notice.