LAND GMT - GLASS MOULD THERMOMETER

Description
The Land GMT system has been designed for rapid, accurate temperature measurement on glass moulds. It replaces the venerable Land YQA system and provides similar measurement precision from a much more portable, user friendly instrument. Additionally, it provides a powerful data logging capability with storage for up to 1000 measurements, which can be downloaded into spreadsheet programs.

GMT comprises a hand held thermometer and processor, inter-connected by a short rugged, detachable cable.

The thermometer has an infrared detector with associated electronics and a rigid fibre optics probe, the tip of which is momentarily touched to the hot surface to make a measurement.

The processor has an easy to read LCD graphics display, “capture” and operating buttons, and a data store. A single PP3 battery powers the whole system.

Features:
• New: Readings can now be logged with a time and date identifier - allowing a wider variety of analyses to be performed on the temperature data.
• Fast, easy, single button measurement: Touch the probe tip to the target surface and press the capture button. The temperature is taken and displayed (and in logging mode, stored).
• Accurate: Spectral response is 0.8 to 1.0µm. Short wavelength operation minimises errors due to emissivity and/or optics contamination.
• Portable and convenient: Thermometer and processor are robust and lightweight. Thermometers are interchangeable on site, with probes of different lengths and bends.
• Powerful data logging: Up to 1000 readings can be stored, each reading comprising: temperature, time and date, emissivity and an optional location identifier. The stored data can be downloaded via a RS232C port to PC for spreadsheet analysis.

Photo courtesy of Lax and Shaw Ltd.
GMT complies with the current European directives relating to electromagnetic compatibility and safety (EMC directive 89/336/EEC; Low voltage directive 73/23/EEC).

Continuous product development may make it necessary to change these specifications without notice.

**SPECIFICATION**

**THERMOMETER**
- Temperature range: 350 to 650°C
- Waveband: 0.8 to 1.0 µm
- Speed of response: Detector circuit time constant 10ms, acquisition interval 100ms
- Repeatability: 1°C
- Absolute accuracy: 4°C
- Power requirement: None (powered from processor)
- Ambient temperature limits: Thermometer head 10 to 40°C maximum
- Weight: 0.5kg with 300mm probe, 0.6kg with 600mm probe
- Sealing: IP65

**PROCESSOR**
- Display: LCD 128x64 pixels with backlight
- Logging: 1000 readings downloaded to PC via RS232C port, with time and date, and emissivity
- Emissivity limits: 0.3 to 1.0
- Power requirement: A single alkaline PP3 battery will power the system for 40+ hours (10+ hours if display backlight is used continuously)
- Ambient temperature limits: 10 to 40°C
- Weight: 0.75kg
- Sealing: IP65

**FIBRE OPTICS PROBE**
- 300mm length: Straight, 45° bend, 90° bend
- 600mm length: Straight, 45° bend, 90° bend

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