

Fluoroptic® Thermometers
m600 Series

Developer's Kit

The m600 Developer's Kit is an "out-of-the-box" solution designed to allow OEM engineers and R&D technologists to evaluate the technical capability and ease of integration of Luxtron's patented Fluoroptic® thermometry (FOT) in their application.

The m600 OEM module supports a variety of applications where EMI immunity and the inherent stability of FOT eliminates problems encountered with conventional sensors. Applications include control of electrostatic chucks in semiconductor wafer processing, measuring patient tissue temperature during MRI examinations, and monitoring the temperature of high voltage parts in electric power equipment.

*OEM integration
made faster and easier
with the Luxtron
Developer's Kit*



m600 without enclosure



m600 Developer's Kit

Offering a measurement range of -100 to +330°C, the m600 OEM module is available in 1, 2 or 4 channel versions. The non-metallic, electrically non-conductive probe included in the kit is a general-purpose immersion probe with a measurement range of 0 to 250 °C.

Kit includes:

- 4-channel m600 Fluoroptic® Thermometer
- QuickStart Guide
- TrueTemp PC Software
- Universal Power Supply and Power Cord
- RS232 Cable
- STM Fluoroptic® Probe

The QuickStart guide included in the Developer's Kit enables the user to start basic measurements with the m600 Fluoroptic® thermometer. For more details on how to tailor the instrument or TrueTemp software to your specific needs, an m600 user's guide and TrueTemp software manual are included.

Luxtron offers a custom development program to design and integrate probes to meet the needs of the OEM application. A variety of custom probes have been developed for a wide range of temperatures (from cryogenic to 330 °C), vacuum specifications (up to $1 \cdot 10^{-10}$ torr), materials and mechanical specifications to survive various process environments.

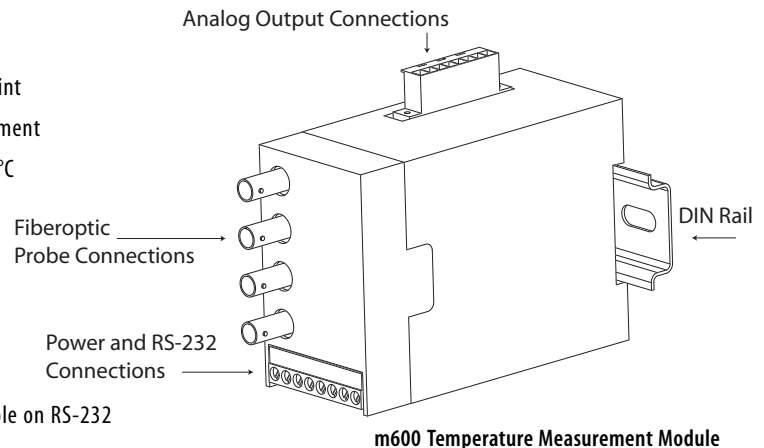


Developer's Kit

About the m600

The m600 included in the Developer's Kit is housed in a shielded metal enclosure. The m600 (shown below) can be removed and operated independently.

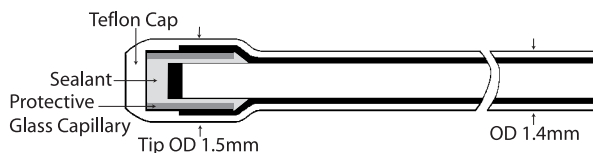
Channels	4
Range	-100 to 330°C
Electrical Interference	Immune to EMI and RF
Accuracy (Uncalibrated)	±2°C or 1% of Full Scale
Accuracy (Calibrated)	0.5°C within ± 50° C of Calibration Point
Repeatability (Precision)	±0.5°C RMS @ 8 Samples per Measurement
Output Resolution	RS-232C: 0.01°C; Analog Output: 0.01°C
Output Update Rate	4Hz
Measurement Rate	4Hz per Channel
Short Term Drift	<0.2°C / Hour
Long Term Drift	<0.5°C / 10 Days
Output Format	Selectable °C, °F and °K
Self Diagnostic	Self Diagnosis and Probe Errors Available on RS-232
Input power	+5V @ 1.5 A or +24V @ 300mA
Serial Output	RS-232C
Analog Output	0 -10V
Dimensions	74.7mm H x 44.7mm W x 104.3mm D
Storage Temperature	-55 to +75°C
Operating Environment	10°C to 50°C, 80% RH (Max) Non-condensing



m600 Temperature Measurement Module

About the STM Fluoroptic Probe

STM Probe Tip



Application	General Purpose Immersion Probe
Temperature Range	0 to 250 °C
Response Time	5.0 seconds in still air 0.7 seconds in stirred water
Fiber Type	200 µm all-silica, double PFA Teflon jacket with Kevlar® strength cabling
Connector Type	ST

For additional probe designs or to discuss custom probe development, please contact Luxtron sales at 408.727.1600 or email info@luxtron.com.

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