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LED Color Testing Sensors Plug-n-Play

FINNtrometer[™] is a plug-n-play module for testing 1 to 12 LEDs and can be daisy chained to test up to 254 LEDs with a single USB or Serial cable.

FINNtromete

APPLICATIONS

- Automotive, Horticulture, Medical, Aeronautical, Industrial, Lighting, Information Technology.
- When CIE xy, CIE uv, CCT and dominant wavelength are critical.
- When quality control demands reliable, unerring accuracy and when clear cut measurements are vital.
- For pulsing, bright to very dim LEDs visible light from ultraviolet to near infrared.
- Functional and in-circuit test environments, on any test platform.
- For use in testing multiple LEDs and excellent for large quantities of LEDs.
- Ideal for functional test set ups and MDA stations where frequency and/or voltage measurements are not possible.

FEATURES

- Accurate measurement of CIE xy, CIE uv, Color Temperature (CCT) and Dominant Wavelength.
- Eliminates the need for additional measuring hardware for Frequency or Voltage readings.
- Simple serial command and response interface that can be used manually or adapted to custom software or NI LabView.

• Quick and easy installation with the flexibility of either a USB or RS232 Serial connection with built-in reverse and overvoltage protection.

FINNtrometer

- Fiber Optics are 1.28 mm in diameter, allowing for testing of very closely spaced LEDs.
- 90 degrees tip fiber optic cable available.
- Compact module is easily mounted in an ICT fixture or functional test station.
- No custom software needed.

ORDERING INFORMATION

MODULES

DESCRIPTION	PART NUMBER
4 LED FINNtrometer [™] (Tests up to 4 LEDs)	TCFT_4Mod
8 LED FINNtrometer [™] (Tests up to 8 LEDs)	TCFT_8Mod
12 LED FINNtrometer [™] (Tests up to 12 LEDs)	TCFT_12Mod

OPTICS

DESCRIPTION	PART NUMBER
18" Straight Fiber optic cable assembly	TC18_FO
24" Straight Fiber optic cable assembly	TC24_FO
18" 90 Degrees Fiber optic cable assembly	TC18_90d_FO

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U.S. Patent Nos. 10,094,877; 10,302,496; 6,490,037; 7,023,554; 7,227,639; and 7,265,822. Additional patents pending.





PRINCIPLE OF OPERATION

The FINNtrometer[™] utilizes the advanced LED color and intensity measurements capabilities of a custom propriety sensor packaged in an enclosed housing to allow simultaneous testing of multiple LEDs without having to power each component individually. This cost effective method of determining the presence, color and/or brightness of LEDs, will enable users to test large quantities while minimizing fixture considerations and lowering per unit cost expense.

The module houses a custom assembly, including multicolor sensors and a microprocessor. Individually numbered fiber optic cables are used to measure the color and/or intensity and send the requested data back via the chosen interface. The custom fiber optic cables are comprised of a press fit plug connecting to the module on one side and a metal shrouded tip on the opposite end which is placed in front or on top of the LED to be tested.

The modules may be ordered based on customer requirements, for testing LEDs in quantities of 4, 8, or 12. In addition, modules may be daisy chained together to test greater numbers of LEDs as needed, up to a maximum of 254 LEDs.

The module(s) may be implemented into functional, in-circuit or stand-alone systems, using either a USB or serial interface.

SET-UP

USB – plug in cable and align fiber optic in front of LEDs. Module utilizes the 5 volts provided by the USB itself, no external power supply is needed. The module has a USB virtual COM port driver which causes the USB device to appear as an additional COM port available to the PC.

Serial – power, ground, transmit (tx) and receive (rx) wires are wire-wrapped to PC or 3070 connection and fiber optics aligned in front of LEDs. 5v to 16v power supply is required.

Optics – the FINNtrometer[™] has three fiber optic options available - an 18" straight cable assembly, an 18" 90 degrees cable assembly, and a 24" straight cable assembly. The press fit plug end of the cable assembly fits into the labeled socket in the side of the module body. The metal shrouded end of the cable assembly is placed in front of or over the LED being tested. It may be held in place by a 0.050 inch hole centered over the face of the LED.

DIMENSIONS



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