

UNIVERSAL LIGHTPROBE™ S2 UNICOLOR SENSOR

Universal LightProbe S2 Unicolor Sensors are designed for the intensity test of any single one of the five main LED colors (blue, green, yellow, orange, and red) plus white, Infrared and UV.



Part Number: ULP-S2 SCI/V

CHARACTERISTICS

- Typical response time: <10mS capture time; 65mS overall response time; intensity output of correct color only.
- Easy install with one-hole fixing clamps available
- Output Loads: 'Int.'- 2Kohms min., 100pF, max.
- Further detail on Page 2

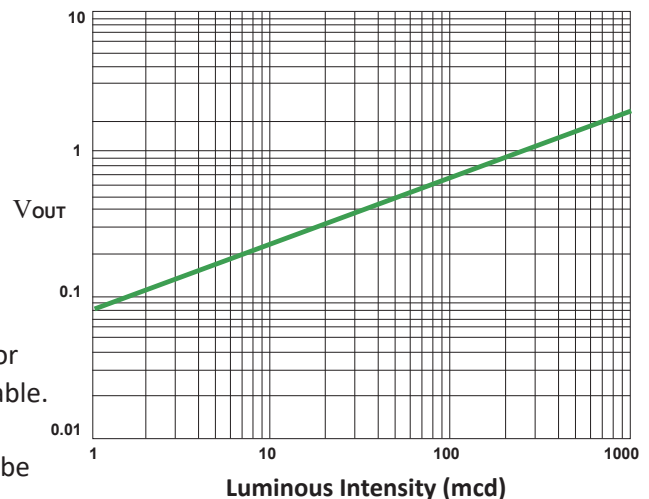
COLOR RESPONSE

- Analog output ranging from 0 to 4 volts
- Output is proportional to LED intensity *only* if the LED is the color specified and it is "ON"
- Tests five main LED colors - blue, green, yellow/amber, orange, or red, plus white
- Tests Infrared LEDs/emitters 700nm to 1,000nm
- Tests UV LEDs/emitters 365nm to 400nm
- Sensor is insensitive to the "wrong" color
- Note: IR LightSources, emitting specific IR wavelengths, are also available

Specific Color Sensor	Output Voltage (V _{out})							
	B	G	Y	O	R	W	IR	UV
Blue	I _v	0	0	0	0	0	0	0
Green	0	I _v	0	0	0	0	0	0
Yellow	0	0	I _v	0	0	0	0	0
Orange	0	0	0	I _v	0	0	0	0
Red	0	0	0	0	I _v	0	0	0
White	0	0	0	0	0	I _v	0	0
IR	0	0	0	0	0	0	I _e	0
UV	0	0	0	0	0	0	0	I _e

INTENSITY RESPONSE

- Analog output ranging from 0 to 4 volts
- Corresponds to LED's luminous intensity in millicandelas (as provided in most LED manufacturers' specifications)
- C.I.E. photopic-curve-corrected for visual colors
- Tests LEDs from 1 mcd to 20,000 mcd, and up to 315,000 mcd with the Very-Low Sensitivity version of the Sensor
- Read-out < 50mV indicates under-ranging - LED is too dim
- Read-out > 4 volts indicates over-ranging - the LED is too bright (for IR LEDs, <50mV indicates over-ranging); Unicolor Low-Sensitivity and Very-Low sensitivity Sensors are available.
- Intensity response depends on size of LED, the aperture of the fiber-optic probe and the distance between the probe tip and the LED emitter; for more information on Sensor Sensitivity Responses please see Application Note 35
- Available in Low and Very-Low Sensitivity models for extremely bright LEDs up to 315,000 mcd



Typical response for PLC green LED tested with Universal LightProbe Unicolor Sensor and Small-Aperture Fiber-Optic Probe

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UNIVERSAL LIGHTPROBE™ S2 UNICOLOR SENSOR

All Universal LightProbe S2 Sensors share the same form, and are pre-programmed to suit specific LED test requirements. The small size and non-conductive housing is specifically designed to accommodate today's high-density test fixtures.

UNICOLOR SENSOR CHARACTERISTICS:

Operating temperature range: 0°C to 70°C

Power consumption: Operates between +5 and 28 volts D.C., at 6mA max. Less than 4.75 volts is not recommended

Voltage protection: Withstands up to +40 volts, & reverse polarity to -18 volts

Signal Output Loads: 20 mA max. Non-inductive.

Output Pins: 3 gold-plated standard wire-wrap pins (0.025 in. sq.)

Sensor Size: 0.560 in. dia x 1.38 in. long

Operating Temperature Range: 0°C to 70°C

Typical response times: <10mS capture time; 65mS overall response time; intensity output of correct color only.

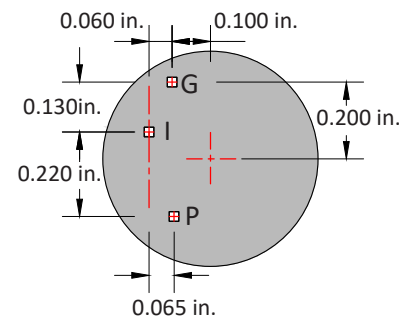
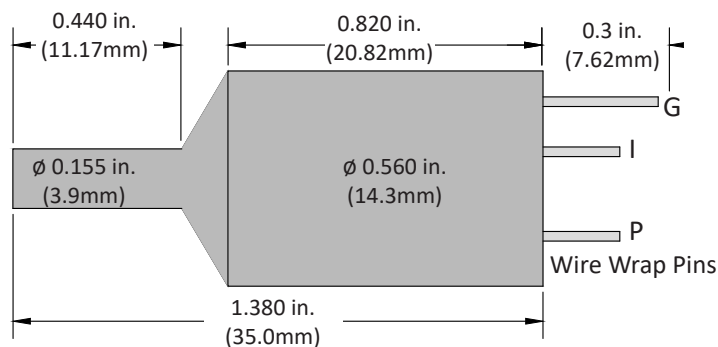
Fiber-Optic Probes: Can utilize any Universal LightProbe Fiber-Optic Probe

UNICOLOR SENSOR: Three standard wire-wrap pins

G - Ground: common for analog output and power input

I - Intensity of correct color LED under test (relative)

P - DC Power Input: Between +5, and 28 volts. Less than 4.75 volts is not recommended.



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