

UNIVERSAL LIGHTPROBE™ FLEXIBLE SMALL-APERTURE FIBER-OPTIC PROBES

UNIVERSAL LIGHTPROBE™ FIBER-OPTIC PROBE SELECTION GUIDE

After choosing a pre-programmed **Sensor** for the type of test and output you require, then choose a **Fiber-optic Probe** to further customize the test for mechanical requirements and constraints. Fiber-optic Probes come in a variety of **aperture styles (wide-aperture, small-aperture, contacting tip)**, **fiber-optic cable type**, and **stainless-steel tip** lengths to meet your exact requirements for testing LEDs. These options are outlined below.

SMALL-APERTURE (SA) FIBER-OPTIC PROBES: Our most popular and cost-efficient option.

Appropriate for most testing applications. The best choice for testing closely-spaced LEDs. Small-Aperture Fiber-Optic Probes come in **Single** models for testing single LEDs, **“Duplex”** for testing two LEDs sequentially, and the **“Trident”** and **“Skinny Trident”** models for testing three LEDs sequentially.

SINGLE (250-12): For testing single LEDs.



Characteristics:

- Flexible cable: 1 x 9.84 in./250mm long.
- Probe tip dia.: 0.050 in. /1.27mm
- LED spacing: Not less than 0.050 in. / 1.27mm
- Probe tip type: Stainless-steel
- Air-gap: 1mm min. recommended
- See probe tip lengths below

FIBER-OPTIC CABLE TYPES:

Universal LightProbe™ Small-aperture Fiber-Optic Probes come in three cable types **“Regular”**, **“Superflex”** and **“Rugged”**

Regular (250) - Most cost efficient. 2 in./50.8mm min. bend radius

Superflex (250SF) - Increased flexibility allows for easier access to difficult to reach LEDs. 1/4 in. /6.35mm min. bend radius.

Rugged (250R) not pictured below. Extra-durable cable for use in harsh working conditions. 1 in. /25.40mm min. bend radius.

PART NUMBERS:

There are 5 tip styles in the **Small-Aperture Single** model available to account for variations in working distance, LED orientation and accessibility, **Short (SL)**, **Long (LL)**, and **Extra-Long (XLL)**, as well as three **Right-Angle** options, **12P** (see page 1), **Short (RSL)** and **Long (RLL)**, for side-emitting LEDs.

250-12-SL-SA

1.125 in. /
28.57mm tip



250-12-LL-SA

1.75 in./
44.45mm tip



250-12-XLL-SA

2.25 in./
57.15mm tip



250-12P-SL-SA

1.125 in./28.57mm tip



250-12-RSSL-SA

0.175 in. /4.44mm right-angle length

1.75 in./

44.45mm tip



250-12-RSLL-SA

0.80 in./20.32mm right-angle length

1.125 in./

28.57mm tip



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UNIVERSAL LIGHTPROBE™ FLEXIBLE WIDE-APERTURE FIBER-OPTIC PROBES

Allows four times the amount of light input as small-aperture probes, compensating for dim LEDs and potential misalignment errors in ATE test fixtures. The best choice for finished-product displays such as illuminated switch alpha-numeric icons. Wide-Aperture probes come in a variety of models, the flexible **250-27's**, which come with a choice of cable housing, the rigid stainless-steel encased **27's**.

FLEXIBLE (250-27): For testing of single LEDs.



Characteristics:

- Flexible cable: 9.84in. / 250mm long
- Probe tip diameter: 0.109in./2.77mm stainless-steel tip
- Probe tip type: non-contacting stainless steel
- LED spacing: not less than 0.109in./2.77mm
- Air-gap: 1mm recommended- up to 3mm to increase field of view when testing misaligned LEDs

FIBER-OPTIC CABLE TYPES:

Universal LightProbe™ Fiber-Optic Probes come in three cable types (“**Regular**”, “**Superflex**”, “**Rugged**”). This allows for specific requirements for LED access, spacing and harsh working conditions.

Regular (250) - Most cost efficient. 2 in. min. bend radius

Superflex (250SF) - Increased flexibility allows for easier access to difficult to reach LEDs. 1/4 in. min. bend radius.

Rugged (250R) - Extra durability for harsh working environment. 1/4 in. min. bend radius.

250-27-SL-WA
250SF-27-SL-WA
 0.325 in./
 8.25mm tip



250-27P-LL-WA
 1.375 in. /34.92mm tip



250-27-LL-WA
250SF-27-LL-WA
 1.375 in./
 34.92mm tip



250SF-27-RSLL-WA
 Available in the “**Superflex**” model only
 0.220 in./5.59mm right angle length

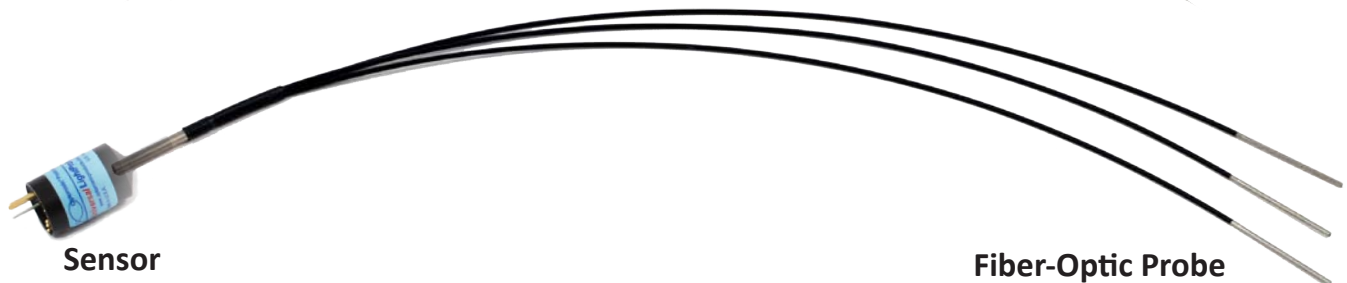


250-27-XLL-WA
250SF-27-XLL-WA
 2.25 in./
 57.15mm tip



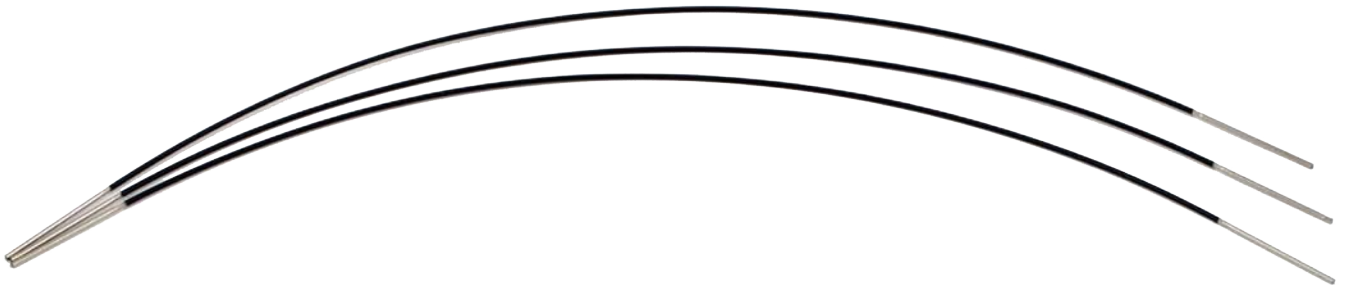
TRIDENT FIBER-OPTIC PROBES:

Optomistic Products offers two types of Trident Fiber-optic Probes, where three Fiber-optic Probes are inserted into a single Universal LightProbe Sensor, for the cost-efficient test of three LEDs with a single Sensor. Since the three Fiber-optic Probes share a single Sensor, in order to receive an accurate response, the LEDs under test must be turned on and tested one-at-a-time.



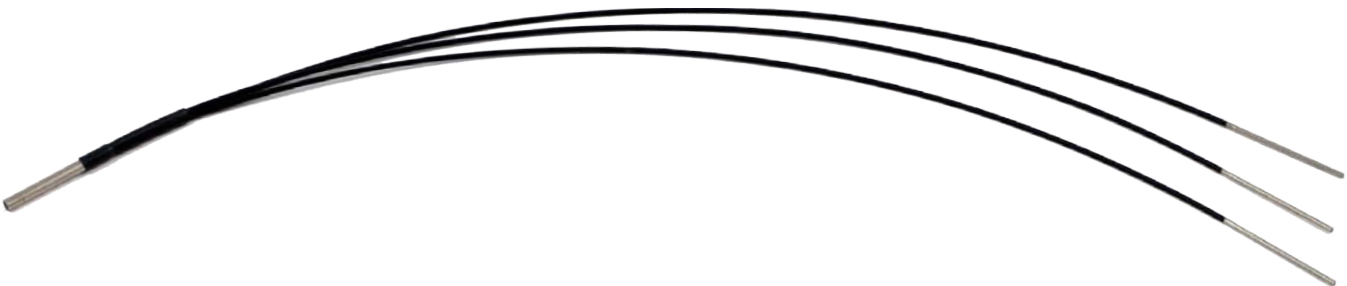
TRIDENT (250-12X12): For the testing of three LEDs sequentially with one sensor.

Our most popular and cost-efficient option. Three single Fiber-optic Probes are inserted into the Sensor for sequential testing of LEDs. Each Fiber-optic Probe is replaceable, if damaged. A two probe “Duplex” model is also available



SKINNY TRIDENT (250T/13): For the testing of three LEDs

Three Fiber-optic Probes are combined into a single housing and then inserted into a single Universal LightProbe Sensor. These individual Fiber-optic Probes are not replaceable. If one is damaged, all three need to be replaced.



TRIDENT FIBER-OPTIC PROBES:

CHARACTERISTICS:

- Flexible cable: 3 x 9.84 in. / 250mm long / 1 in. bend radius
- Air-gap: 1mm min. recommended
- LED spacing: Not less than 0.050 in. / 1.27mm
- Individual probes on the “Trident” are replaceable
- Probe tip type: Stainless-steel
- Probe tip dia.: 0.050 in. / 1.27mm
- LEDs must be turned on and tested one at a time

PART NUMBERS:

There are 6 tip styles available in the “**Trident**” (250-12x12) model, and 5 tip style available in the “**Skinny Trident**” (250T/13) models to account for variations in working distance, LED orientation and accessibility: **Short (SL)**, **Long (LL)**, and **Extra-Long (XLL)**, as well as three **Right-Angle** options for testing side-facing LEDs, **(12P)** in the “**Trident**” model only model only, as well as **(RSSL)** and **(RSLL)** in both the “**Trident**” and “**Skinny Trident**” models.

250T-12x12-SL-SA

250T/13-SL-SA

1.125 in. tips



250T-12x12P-SL-SA

1.125 in./28.57mm tips



250T-12x12-LL-SA

250T/13-LL-SA

1.75 in. tips



250T-12x12-RSSL-SA

250T/13-RSSL-SA

0.175 in. right-angle length / 1.75 in. tips



250T-12x12-XLL-SA

250T/13-XLL-SA

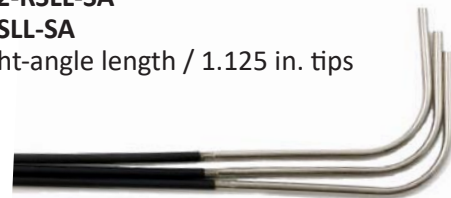
2.25 in. tips



250T-12x12-RSLL-SA

250T/13-RSLL-SA

0.80 in. right-angle length / 1.125 in. tips



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