

Infrared Transmitter Fiber Optic Probes 4 to 20 mA Output

OS1553 Series
\$2475
All Models



- ✓ Reaches Difficult-to-Access Locations
- ✓ Fast, Precise 10 msec Time Constant
- ✓ Ideal for Small Targets with Spot Sizes Down to 0.004" Available
- ✓ Adjustable Emissivity for High Accuracy
- ✓ Spectral Filtering Allows Use in Dirty Atmospheres
- ✓ Works with Standard Process Meters and Controllers

The OS1553 is a self-contained fiber optic infrared transmitter designed to provide a linear 4 to 20 mA output for monitoring, datalogging or controlling temperature.

The detector can be remotely mounted as far as 9 m (30') away from the fiber optic lens via the fiber optic cable, removing it from hazardous locations. Other problems that can be overcome by the OS1553's fiber optic design include: taking measurements in high energy fields; measuring very small objects or surfaces; taking measurements in "dirty" atmospheres containing water vapor, dust or smoke.

Some important factors that will determine the fiber optic assembly needed for your infrared application are: the distance from the fiber optic lens to the surface being measured; the size of the object being measured; temperature range; ambient temperature around the fiber optic cable; the length of the cable; the method of heating the surface being measured; and the atmospheric conditions between the fiber optic lens and product.

OS1553-L1-R1-4,
\$2475, shown
smaller than
actual size.



OS1553-MB mounting
bracket, included.

Specifications

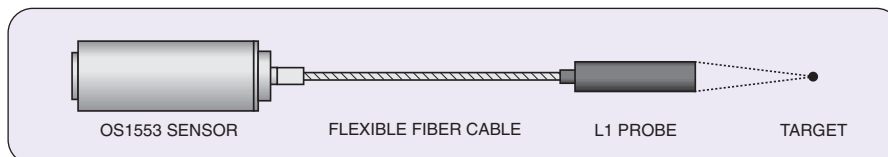
Accuracy: $\pm 1.0\%$ rdg or 1.7°C ($\pm 3^\circ\text{F}$), whichever is greater
Spectral Response: 0.95 to 1.09 microns
Repeatability: $\pm 1^\circ\text{C}/\text{F}$ or less
Time Constant: 10 msec (0 to 63.2%)
Output: 4 to 20 mA linear output
Power: 20 to 40 Vdc, 100 mA Regulated, 0.02%
Maximum Loop Resistance:

$$\frac{V_{\text{source}} - 20}{20 \text{ mA}}$$

Emissivity: 0.05 to 0.99, adjustable in 0.01 steps
Ambient Temperature: 0 to 50°C (32 to 122°F)

Dimensions:
8.64 H x 12.07 W x 24.77 cm D
(3.40 x 4.75" x 9.75")

Weight: 1.8 kg (4 lb)
Fiber Optic Cable: Glass fiber material, heavy-duty stainless steel jacket, 0.23" O.D., 300°F max
Probe: 25.4 diameter by up to 279 mm long (1 by 11")



MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

| Model No. | Base Price | Temp Range | Spot Size @ Target Dist | Cable Length |
|----------------|------------|--|-------------------------|---------------|
| OS1553-L1-R1-4 | \$2475 | 816 to 1370°C (1500 to 2500°F) | 0.020" @ 6" | 1.2 m (4') |
| OS1553-L1-R2-4 | 2475 | 565 to 840°C (1050 to 1550°F) | 0.16" @ 3" | 1.2 m (4') |
| OS1553-L1-R3-4 | 2475 | 565 to 840°C (1050 to 1550°F) | 0.79" @ 12" | 1.2 m (4') |
| OS1553-L1-R4-4 | 2475 | 816 to 1370°C (1500 to 2500°F) | 0.50" @ 32" | 1.2 m (4') |

Consult OMEGA for information on custom OS1553 fiber optic systems to suit any application.

Accessories

| Model No. | Price | Description |
|-----------|-------|---|
| PSS-D15B | \$114 | ± 15 Vdc or 30 Vdc regulated power supply, ± 100 mA, 0.02% line and load, 115 Vac input |
| OS1553-MB | 95 | Additional mounting bracket |

Comes with probe assembly, fiber optic cable, mounting bracket, and operator's manual.
Ordering Example: OS1553-L1-R1, fiber optic sensor with 816 to 1370°C (1500 to 2500°F) range, 0.02" spot size at 6" target distance, and PSS-D15B power supply, $\$2475 + 114 = \2589 .



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• Flow and Level

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• pH and Conductivity

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• Data Acquisition

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• Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters