

Fast Response Fiber Optic Infrared Sensors

OS1562/OS1572
Starts at
\$2400



OS1562F-L1-R1-4, \$2460,
shown smaller than
actual size.

- ✓ Temperature Ranges to 1825°C (3320°F)
- ✓ ±1.0% Accuracy
- ✓ Time Constant 10 msec (0 to 63.2%)
- ✓ Small Spot Sizes Down to 0.020" at 6"
- ✓ 1 mV/Degree Output Standard
- ✓ Unaffected by Electrical Noise
- ✓ Emissivity Adjustment for High Accuracy Measurements
- ✓ Fiber Optic Vacuum Bushing Good for 10⁻⁷ Torr
- ✓ Optional Backlighting For Precise Sighting
- ✓ L1 Standard Probe
- ✓ Available Second Output: 0 to 10 Vdc, 4 to 20 mA, J or K Thermocouple Signal
- ✓ Signal Processing Available with OS1572



OS1562-MB mounting bracket included.

L1 lens probe type

Additional Assemblies Available Consult Engineering

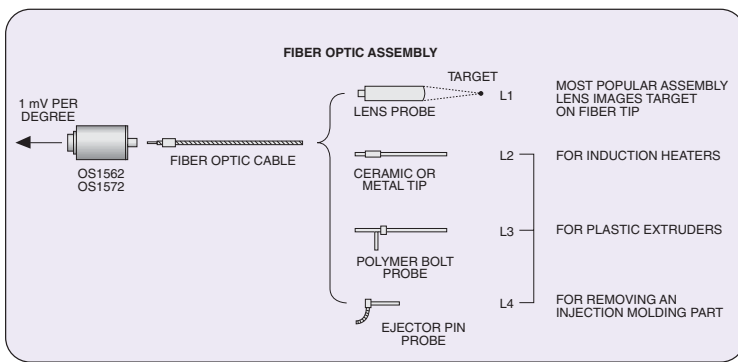
- Small Spot Sizes Down to 0.004"
- Temperatures to 800°F at Pressures to 30,000 PSI
- Ceramic/Metal Tip Probe for Induction Heating Where Probe Is Close to Surface
- Polymer Bolt Probe for Extrusion Applications
- Ejector Pin Probe for Injection Molding

The OS1562 and OS1572 are stand-alone fiber optic infrared sensor for applications requiring the advantages of non-contact temperature measurement and fiber optic technology. They are used where conventional infrared detectors are not possible, such as with targets which are not easy to access, have small spot sizes, are in high energy fields or are in environments with high humidity or containing smoke, or in vacuum applications.

Some important factors that determine the fiber optic assembly needed with the sensors are: the

distance from the fiber optic probe lens to the surface being measured; the size of object; the temperature range; the ambient temperature range around the fiber optics; the length of fiber optic cable; the method of heating the surface being measured; and the atmospheric conditions between the fiber optic lens and the product.

The ordering matrix shows a few configurations of the sensors with fiber optic probe assemblies. Consult OMEGA for other available fiber optic assembly configurations. All systems include sensor, fiber optic probe, and fiber optic cable.



Specifications

Ambient Temperature: 10 to 50°C (50 to 122°F)

Accuracy: ±1.0% rdg

Repeatability: ±0.5% rdg

Emissivity: 0.05 to 1.0 adjustable in 0.01 steps

Spectral Response:

0.91 to 2.8 microns

Time Constant: 10 msec, (0 to 63.2%)

Signal Output:

1 mV/degree standard

Resolution: 1°C/°F

Power: ±15 Vdc, 100 mA regulated supply 0.05% line and load

Power Consumption: 2 W max

Dimensions:

OS1562: 6.9 H x 10.2 W x 30.5 cm D (2.7 x 4.0 x 12")

Weight: 1.8 kg (4 lb)

Fiber Optic Cable: Glass or quartz fiber with heavy duty s.s. jacket standard, 0.5 mm/1.78 mm (0.020"/.070") cable dia, 300°F ambient max

Available Probe Types

L1 Lens Probe (Standard)

L2 Ceramic/Metal Tip

L3 Polymer Bolt

L4 Ejector Pin Probe



Accessories

Model No.	Price	Description
PSS-D15B	\$114	±15 Vdc or 30 V regulated power supply, ±100 mA, 0.02% line and load, 115 Vac input
OS1562-MB	95	Additional mounting bracket

Optional Second Output (OS1562 Models – No Add'l Cost)

Order Suffix	Description
-V	0 to 10 Vdc
-MA	4 to 20 mA
-J	J thermocouple
-K	K thermocouple

Optional Second Output (OS1572 Models)

Order Suffix	Add'l Price	Description
-V	\$75	0 to 10 Vdc
-MA	125	4 to 20 mA

Consult OMEGA for custom vacuum bushings and other OS1562 or OS1572 fiber optic systems.

Optional Signal Processing Feature (OS1572 Models)

Order Suffix	Add'l Price	Description
-PS	\$330	Peak sense/hold
-SA	330	Signal advertising
-FR	330	Fast rise variable decay

MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

Model No.	Base Price	Temp. Range	Spot Size @ Target Dist.	Cable Length	Output Signal(s)	Signal Processing
OS1562F-L1-R1	\$2460	850 to 1800°F	0.020" @ 6"	1.2 m (4')	1 mV/° standard	N/A
OS1562F-L1-R2	2400	400 to 850°F	0.085" @ 6"	0.3 m (1')		N/A
OS1562F-L1-R3	2460	400 to 850°F	0.22" @ 8"	1.2 m (4')		N/A
OS1562C-L1-R4	2460	900 to 1825°C	1.0" @ 26"	1.2 m (4')		N/A
OS1572F-L1-R1	3500	1600 to 3320°F	0.020" @ 6"	1.2 m (4')	2nd output optional, see table	optional see table
OS1572F-L1-R2	3460	400 to 850°F	0.085" @ 6"	0.3 m (1')		
OS1572F-L1-R3	3500	450 to 1000°F	0.22" @ 8"	1.2 m (4')		
OS1572C-L1-R4	3500	800 to 1550°C	1.0" @ 26"	1.2 m (4')		

Comes with sensor probe assembly, fiber optic cable, mounting bracket and operator's manual.

Ordering Examples: **OS1572F-L1-R3-4-MA-SA**, fiber optic infrared sensor, 450 to 1000°F range, 0.22" spot size at 8", 1.2 m (4') cable, with 4 to 20 mA and signal advertising, \$3500 + 125 + 330 = **\$3995**.

OS1562F-L1-R1-4, fiber optic infrared sensor, 850 to 1800°F range, 0.020" spot size at 6", 1.2 m (4') cable, with 1 mV/° output, and Type J thermocouple output, **\$2460**.



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• Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

• pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

• Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

• Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

• 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