Economical Fiber Optic Infrared Transmitter
With 4-Wire, 4 to 20 mA Output

OS1553-A

$2175

✔ **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-A 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 maybe remotely mounted up to 1.2 m (4') 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-A fiber optic design include: taking measurements in high energy fields measuring very small objects or surfaces; and 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.

Specifications
Accuracy: ±1.0% rdg or 1.7°C (±3°F), whichever is greater
Spectral Response: 0.95 to 1.09 microns
Repeatability: ±1°C/F or less
Time Constant: 10 msec (0 to 63.2%)
Output: 4 to 20 mA linear output

OS1553-A shown in an industrial application.

Power: 20 to 40 Vdc, 100 mA regulated, 0.2%
Power/Output Cable: 4 conductor shielded [4.5 m (15') standard]
Maximum Loop Resistance:

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

Emissivity: 0.05 to 0.99, adj in 0.01 steps
Ambient Temperature: 0 to 50°C (32 to 122°F)
Dimensions: 69 Dia. x 203 mm L (2.7 x 8")
Weight: 1.6 kg (3.5 lb)
Fiber Optic Cable: 1.2 m (4') glass fiber material, heavy-duty stainless steel

For R1 Temp Range

Spotsize/Target Distance Chart		
*Code	Spotsize @	Distance
01	0.15"	6"
02	0.25"	8"
03	0.50"	16"
04	0.75"	24"
05	1.00"	30"
06	1.20"	36"

For R2 Temperature Range

Spotsize/Target Distance Chart		
*Code	Spotsize @	Distance
07	0.004"	1"
08	0.025"	4"
09	0.050"	10"
10	0.100"	18"
11	0.150"	24"
12	0.250"	36"

MOST POPULAR MODEL HIGHLIGHTED!

To Order *(Specify Model Number)*

Model No.	Price	Temp Range
OS1553-A-R1-(*)	$2175	565 to 840°C (1050 to 1550°F)
OS1553-A-R2-(*)	2175	816 to 1370°C (1500 to 2500°F)

(*) Insert code from spotsize chart above.

Accessories

Model No.	Price	Description
PSR-24S	$60	Regulated power supply, 24 Vdc, 400 mA, screw terminal
PSR-24L	60	Regulated power supply, 24 Vdc, 400 mA, UL, stripped leads
PSR-24L-230	60	Regulated power supply, 24 Vdc, 400 mA, stripped leads, 230 Vac input, CE
PSU-93	40	Unregulated power supply, 16 to 23 Vdc, 300 mA max, screw terminal
OS1550-MB	50	Mounting bracket
OS1550-MN	15	Mounting nut
TX4-100	28.50	4 conductor shielded extension cable

Comes with probe assembly, fiber cable, and operator's manual.
Note: *Consult OMEGA for information on custom OS1553-A fiber optic systems for any application.*
Ordering Example: OS1553-A-R1-02, *fiber optic sensor with 565 to 840°C (1050 to 1550°F) range, 0.25" spot = **$2175**. OCW-3,*