

# Industrial 4-Wire Infrared Temperature Transmitters

4 to 20 mA Output Standard

**DISCONTINUED**

OS1550 Series



Optional

*Ideal for use in Fast-Changing Processes with Exceptionally Fast 10 msec Time Constant.*



OS1551-A-200C.

OS1552-A-816C.

Both models shown smaller than actual size.



Recommended RD8251 paperless recorder. See [omega.com](http://omega.com) for specifications and options.

## OS1551-A

- ✓ Wide Field of View
- ✓ Temperature Range 0 to 200°C (32 to 392°F) or 200 to 500°C (392 to 1022°F)
- ✓ Spectral Response 8 to 14 Microns

## OS1552-A

- ✓ Narrow Field of View
- ✓ Temperature Range 538 to 816°C (1000 to 1500°F) or 816 to 1371°C (1500 to 2500°F)
- ✓ Spectral Response 0.91 to 1.05 Microns

## Common Features

- ✓ Non-Contact Measurement
- ✓ 4 to 20 mA Linear Output
- ✓ Fast 10 msec Time Constant
- ✓ Adjustable Emissivity

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Combine any of OMEGA's process instruments pictured here to build a complete high-performance measurement and control system. OMEGA's complete line of controls offer industry standard options such as...

- RS232
- RS485
- Control/Alarm Relays
- Data Storage
- Computer Interface

The OS1551-A and OS1552-A have an exceptionally fast time constant of 10 msec (0 to 63.2%), which makes them ideal for use in fast-changing processes or to capture quick temperature changes.

They are compatible with any of OMEGA's process control instrumentation such as recorders, data loggers, meters, or temperature controllers. The DC system is drift free, has no moving parts, and may be used in a wide variety of process applications from 0 to 1370°C (32 to 2500°F) in sub-ranges. Typical applications include: low temperature measurement in textile manufacturing, printing, paper laminating, thick plastics, and measuring products heated by radiant heat sources.



Recommended CNI8 controller. See [omega.com](http://omega.com) for specifications and options.

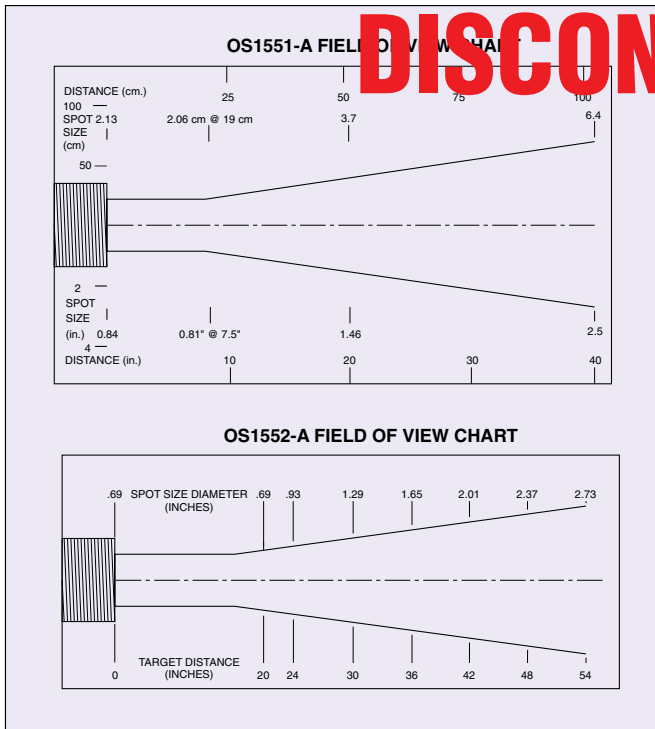


Recommended DP41-E process meter. See [omega.com](http://omega.com) for specifications and options.

We make running changes when technical advances allow. Check at time of ordering for additional features.

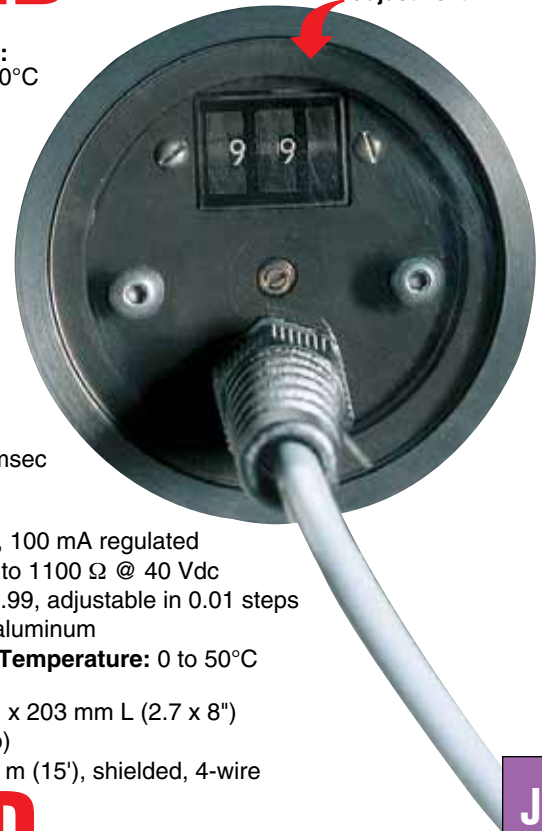
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OS1551-A/OS1552-A rear view, shown actual size.

Digital emissivity adjustment.



## Specifications

### Temperature Range:

- OS1551-A:** 0 to 550°C (32 to 1022°F)
- OS1552-A:** 538 to 1371°C (1000 to 2500°F)

**Accuracy:** ±1.0% reading or 1.7°C (3°F) whichever is greater

### Spectral Response:

- OS1551-A:** 8 to 14 microns
- OS1552-A:** 0.91 to 1.05 microns

**Repeatability:** ±1°C

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

**Output:** 4 to 20 mA

**Power:** 18 to 40 Vdc, 100 mA regulated

**Loop Resistance:** 0 to 1100 Ω @ 40 Vdc

**Emissivity:** 0.05 to 0.99, adjustable in 0.01 steps

**Housing:** Anodized aluminum

**Ambient Operating Temperature:** 0 to 50°C (32 to 122°F)

**Dimensions:** 69 Dia. x 203 mm L (2.7 x 8")

**Weight:** 680 g (1.5 lb)

**Standard Cable:** 4.6 m (15'), shielded, 4-wire

**CAUTION!** – This product is not intended for medical use or use on humans



OMEGACARE<sup>SM</sup> extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARE<sup>SM</sup> covers parts, labor and equivalent loaners.

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## To Order

Model No.	Temperature Range	Spectral Response	Spot Size
<b>OS1551-A-200C</b>	0 to 200°C (32 to 392°F)	8 to 14 microns	See FOV chart
<b>OS1551-A-550C</b>	200 to 550°C (392 to 1022°F)	8 to 14 microns	See FOV chart
<b>OS1552-A-816C</b>	538 to 816°C (1000 to 1500°F)	0.91 to 1.05 microns	See FOV chart
<b>OS1552-A-1371C</b>	816 to 1371°C (1500 to 2500°F)	0.91 to 1.05 microns	See FOV chart
<b>DP41-E</b>	Process meter, see omega.com for specifications and options		
<b>RD8251</b>	Paperless recorder, see omega.com for specifications and options		
<b>CNi8</b>	i Series process controller, see omega.com for specifications and options		

## Accessories

Model No.	Description
<b>OS1550-MB</b>	Mounting bracket
<b>OS1550-MN</b>	Mounting nut
<b>OS1550-AP</b>	Air purge collar
<b>OS1550-WC</b>	Water cooling jacket
<b>OS1550-LS</b>	Laser sight
<b>PSR-24S</b>	Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, screw terminals, UL
<b>PSR-24L</b>	Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, stripped leads, UL
<b>PSR-24L-230</b>	Regulated power supply, European plug, 230 Vac input, 24 Vdc output, 400 mA, stripped leads, CE
<b>PSU-93</b>	Unregulated power supply, 16 to 23 Vdc, 300 mA max, screw terminal
<b>TX4-100</b>	4-conductor, shielded power/output extension cable
<b>CAL-3-IR</b>	NIST-traceable calibration

**Ordering Examples:** OS1552-A-816C, high-temperature fiber optic pyrometer with a spectral response of 0.91 to 1.05 microns and OS1550-MB, mounting bracket and OS1550-MN, mounting nut.

OCW-3, OMEGACARE<sup>SM</sup> extends standard 2-year warranty to a total of 5 years.