

Miniature Low-Cost, Non-Contact IR Temperature Sensor/Transmitter with Built-In LED display



Strain-relief port for power and output leads

OMEGA's new low-cost OS102 Series mini infrared transmitter system features a remotely mounted infrared temperature sensor and high-performance, microprocessor-based signal conditioner with built-in LED display. The OS102's miniature sensor head design is ideal for measuring temperature in confined, hard-to-reach places and harsh environments. The sensor head is connected to the main electronics housing via a 1.8 m (6') shielded cable standard on all models. The signal conditioner's main electronics are mounted in a rugged NEMA 4 (IP66) rated diecast aluminum housing and feature adjustable emissivity, linear voltage, and current output calibrated for the temperature range of -18 to 538°C (0 to 1000°F). A user-adjustable high/low alarm output is standard on all models.

Specifications

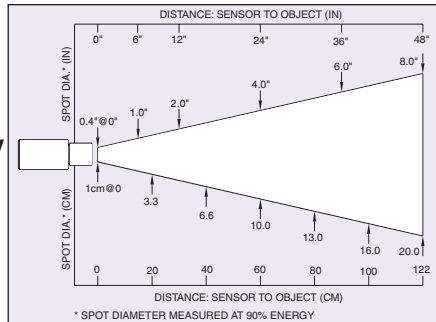
- Accuracy:** ±2% of reading or 4°F, whichever is greater
- Repeatability:** ±1% of reading
- Spectral Response:** 5 to 14 μm
- Response Time:** 150 msec (0 to 63% of final reading)
- Emissivity Range:** 0.10 to 1.0
- Field of View:** 6:1
- Open Aperture:** 10 mm (0.4")
- Ambient Operating Range:**
Main electronics: 0 to 50°C (32 to 122°F)
Sensor head: 0 to 70°C (32 to 158°F)
High-temp sensor head option (-HT): 0 to 85°C (32 to 185°F)
Sensor Head with Water Cool Jacket: 0 to 200°C (32 to 392°F)
- Power:** 12 to 24 Vdc
- Alarm:** Adjustable, open drain (100 mA)
- Temperature Range:** -18 to 538°C (0 to 1000°F)
- Transmitter Output:** 1 mV/deg, 0 to 5 Vdc or 4 to 20 mA. Internal screw terminal corrections.
- Display:** Built-in LED, °F/°C switchable
- Electronics Housing:** NEMA 4, diecast aluminum
- Sensor Head Cable Length:** 1.8 m (6') standard
- Box Dimensions:** 11.4 x 6.3 x 5.6 cm (4.5 x 2.5 x 2.2")
- Weight:** 300 g (0.66 lb)
- Sensor Head:** 2.5 Dia. x 6.3 cm long (1 x 2.5") with 3/16 UNF thread

- ✓ -18 to 538°C (0 to 1000°F) Range
- ✓ Adjustable Emissivity from 0.10 to 1.0
- ✓ Fast, Accurate, Repeatable Readings
- ✓ Built-In °F/°C Switchable LED Display
- ✓ 0 to 5 Vdc, 4 to 20 mA or 1 mV/Deg Analog Output Models
- ✓ Rugged, Miniature Industrial Design with Remote Sensor Head
- ✓ User-Adjustable High or Low Alarm Standard
- ✓ NEMA 4 (IP66) Metal Housing

LASER RADIATION DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. CLASS 2 LASER PRODUCT.

LASER RADIATION - DO NOT STARE INTO BEAM
MAX. OUTPUT 1mW, WAVELENGTH 630-670 nm, CLASS II (2)
LASER PRODUCT. COMPLIES WITH FDA 21CFR 1040.10

OMEGA CAUTION
AVOID EXPOSURE. LASER RADIATION IS EMITTED FROM THIS APERTURE



MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

Model Number	Price	Description
OS102-MV-(*)	\$270	Transmitter with 1 mV/°C or °F output and LED
OS102-V1	270	Transmitter with 0 to 5 Vdc output and LED
OS102-MA	320	Transmitter with 4 to 20 mA output and LED
Models with High-Temperature Sensing Head		
OS102-MV-(*)-HT	\$370	Transmitter with 1 mV/°C or °F output
OS102-V1-HT	370	Transmitter with 0 to 5 Vdc output
OS102-MA-HT	420	Transmitter with 4 to 20 mA output

Each OS102 comes complete with sensor head and 1.8 m (6') cable, sensor head mounting nut, main electronics housing and operator's manual.
 (*) Insert F for mV/°F or C for mV/°C output
Ordering Example: OS102-MA + OS100-LS + OS100-CA15FT, transmitter with 4 to 20 mA output, laser sighting accessory and 4.6 m (15') sensor head extension cable, \$320 + 175 + 35 = \$530.

Accessories

Model Number	Price	Description
OS100-MB	\$20	Mounting bracket
OS100-DR	25	DIN rail mounting adaptor
OS100-AP	30	Air purge collar
OS100-WC	175	Water cooling jacket, up to 200°C
OS100-LS	175	Laser sighting accessory
OS100-CA15FT	35	Sensor head extension cable 4.6 m (15')
OS100-CA25FT	45	Sensor head extension cable 7.6 m (25')
TX8-100	45.50	Power/output cable 30 m (100')
PSR-24S	60	Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, screw terminals, UL
PSR-24L	60	Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, stripped leads, UL
PSR-24L-230	60	Regulated power supply, European plug, 230 Vac input, 24 Vdc output, 400 mA, stripped leads, CE
PSU-93	40	Unregulated power supply, 16 to 23 Vdc, 300 mA max, screw terminal
PSU-93	40	Unregulated power supply, 16 to 23 Vdc, 300 mA max, screw terminal
CAL-3-IR	125	NIST-traceable calibration



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