

# Non-Contact Infrared Temperature Sensor With Wireless Transmitter

UWIR-2-NEMA



- ✓ -18 to 538°C (0 to 1000°F) Measurement Range
- ✓ Adjustable Emissivity from 0.10 to 1.0
- ✓ Free Software Converts Your PC Into a Multi-Channel Chart Recorder or Data Logger
- ✓ Low Power Operation and Sleep Mode For Long Battery Life
- ✓ Weather Resistant NEMA 4X (IP65) Enclosure

OMEGA's new infrared sensor with wireless transmitter features a remote IR sensor and radio wireless transmitter in a NEMA enclosure. The miniature sensor head is ideal for measuring temperatures from -18 to 538°C (0 to 1000°F) in confined, hard-to-reach places and harsh environments. The wireless transmitter is mounted in a NEMA 4 (IP65) plastic enclosure. When activated the unit will transmit readings continuously at pre-set time interval that was programmed by the user during the initial setup. Each unit measures and transmits: IR sensor reading, ambient temperature, RF signal strength and battery condition to the host and is displayed on the PC screen in real time using the provided software. Each unit includes free software that converts your PC into a strip chart recorder or data logger so readings can be saved and later printed or exported to a spread sheet file.

**Each Unit Transmits:**

- Process and Ambient Temperatures
- Signal Strength
- Battery Status

**Specifications**

(See [omega.com](http://omega.com) for complete specifications)

**Temperature Range:** -18 to 538°C (0 to 1000°F)

**Accuracy @ 22°C (72°F) Ambient Temperature and Emissivity of 0.95 or Greater:** ±2% rdg or 2.2°C (4°F), whichever is greater

**Optical Field of View:** 6:1 (distance/spot size)

**Sensor Head Cable:** 1.8 m (6') standard; up to 15 m (50') total length capable

**Repeatability:** ±1% rdg

**Spectral Response:** 5 to 14 microns

**Response Time:** 100 ms (0 to 63% of final value)

**Emissivity Range:** 0.1 to 1.00, adjustable

For Available Receivers, See [omega.com](http://omega.com)

Weather Proof/Wall Mounted

UWIR-2-NEMA shown smaller than actual size.



Monitoring temperature of heating coil on an induction welder.

**Operating Temperature**

**Wireless Transmitter:** -10 to 70°C (14 to 158°F)

**Sensor Head:** 0 to 70°C (32 to 158°F)

**Sensor Head with OS100-WC (Water Cooling Jacket):** 0 to 200°C (32 to 392°F)

**Operating Relative Humidity:** Less than 95% RH, non-condensing

**Water Flow Rate (OS100-WC):** 0.25 GPM, room temperature

**Thermal Shock:** About 30 minutes for 25°C (77°F) abrupt ambient temperature change

**Warm-Up Period:** 3 minutes

**Air Flow Rate (OS100-AP):** 1 CFM (0.5 L/s)

**Battery Life (Typ):** 1.5 @ 1 sample/minute reading rate @ 25°C (77°F)

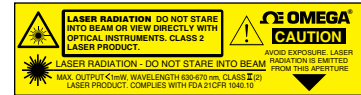
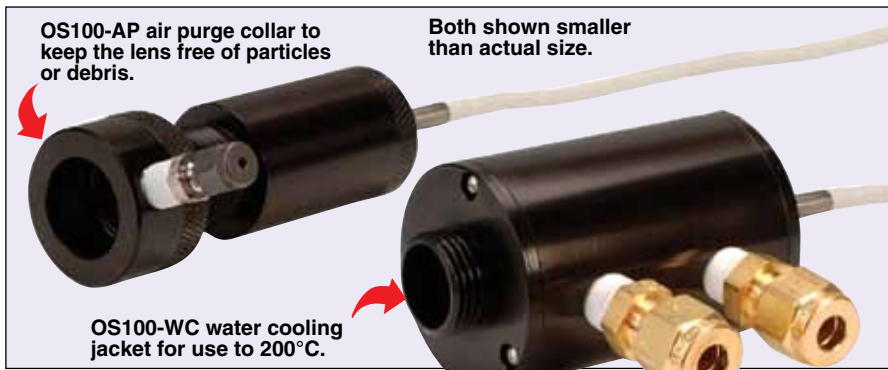
**Laser Sight Accessory (OS100-LS)**

**Wavelength (Color):** 630 to 670 nm (red)

**Operating Distance (Laser Dot):** Up to 9.1 m (30')

**Max Output Optical Power:** Less than 1 mW @ -6°C (22°F) ambient temperature

**European Classification:** Class 2, EN60825-1/11.2001



**Maximum Operating Current:**  
45 mA @ 3 Vdc

**FDA Classification:** Complies with 21 CFR 1040.10, Class II laser product

**Beam Diameter:** 5 mm (0.20")

**Beam Divergence:** <2 mrad

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

**Operating Relative Humidity:**  
Less than 95% RH, non-condensing

**Power Switch:** On/off slide switch on the battery pack

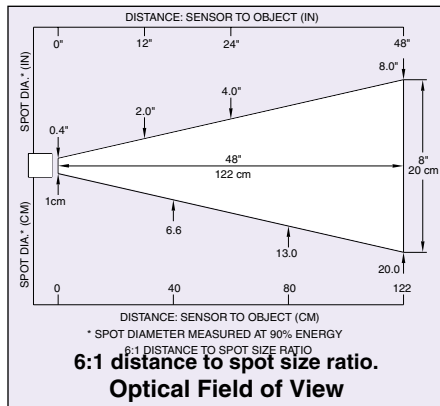
**Power Indicator:** Red LED

**Power:** Battery pack, 3 Vdc (consists of two 1.5 Vdc "AA" lithium batteries)

**Dimensions:** 38 diameter x 50.8 mm L (1.5 x 2")



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.



To Order Visit <a href="http://omega.com/uwir-2">omega.com/uwir-2</a> for Pricing and Details	
Model No.	Description
UWIR-2-NEMA	Non-contact wireless infrared transmitter with remote sensor, 1.8 m (6') cable
UWTC-BATT-C	Replacement 3.6V lithium "C" battery assembly
UWTC-CABLE	Spare programming cable (one included with receivers)

**Accessories**

Model No.	Description
OS100-MB	Mounting bracket
OS100-DR	DIN rail mounting adaptor
OS100-AP	Air purge collar
OS100-WC	Water cool jacket, up to 200°C (392°F)
OS100-LS	Laser sighting accessory
OS100-CA15FT	Sensor head extension cable, 4.6 m (15')
OS100-CA25FT	Sensor head extension cable, 7.6 m (25')

Comes complete with operator's manual, software, mounting nut, and 3.6V lithium "C" battery assembly.

**Ordering Examples:** UWIR-2-NEMA, wireless infrared transmitter, UWTC-REC1, 48-channel USB receiver, UWTC-BATT-C, spare battery, and OS100-MB, sensor head bracket.

UWIR-2-NEMA, wireless infrared transmitter, UWTC-REC2-D-MA, 48-channel transceiver/host with 1-channel 4 to 20 mA analog output, alarm and local display, UWTC-BATT-C, spare battery, and OS100-MB, sensor head bracket. OCW-3, OMEGACARE<sup>SM</sup> extends standard 1-year warranty to a total of 4 years.



DS-UWIR-2-NEMA

