Weather Resistant Non-Contact Infrared Temperature Sensor

With Wireless Transmitter

UWIR-2A-NEMA
UWIR-2A-NEMA-HT

1 YEAR WARRANTY

- **Transmit Data Wirelessly in Real-Time, up to 120 m (440')**
- **-18 to 538°C (0 to 1000°F) Measurement Range**
- **Adjustable Emissivity from 0.10 to 1.0**
- **Low Power Operation and Sleep Mode For Long Battery Life**
- **Weather Resistant NEMA 4X (IP65) Enclosure**
- **Works with UWTC-REC Receivers for a Complete Wireless System**

Omega's 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 4X (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. Each compatible "UW" Series receiver includes free software that converts your PC into a monitor, chart recorder, or data logger. Readings can be saved and later printed or exported to a spreadsheet file.

Each Unit Transmits:
- **Process and Ambient Temperatures**
- **Signal Strength**
- **Battery Status**
- **IR Sensor Readings**

UWIR-2A-NEMA, shown smaller than actual size.

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

Operating Temperature

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

Sensor Head: 0 to 70°C (32 to 158°F)

Sensor (-HT Model): 0 to 85°C (32 to 185°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)

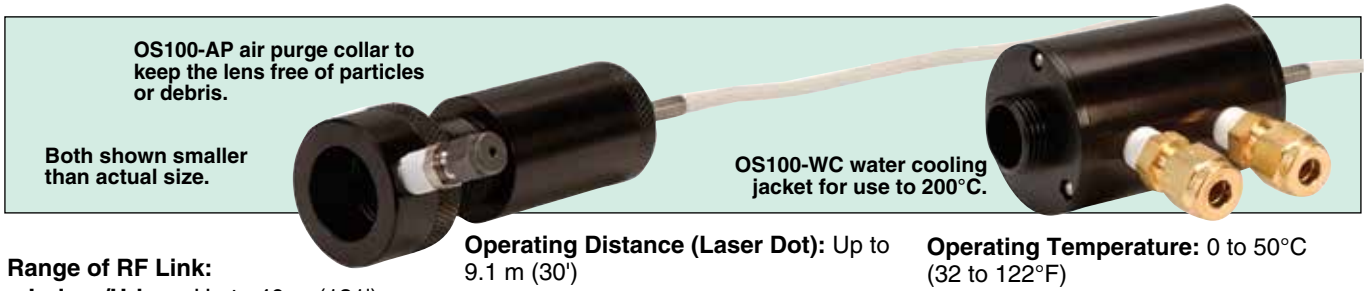
Battery Life (Typ): 3 years @ 1 sample/minute reading rate @ 25°C (77°F)

Laser Sight Accessory (OS100-LS)

Input: Infrared temperature

Resolution: 1°C (1°F)

Monitoring temperature of heating coil on an induction welder.



Range of RF Link:
Indoor/Urban: Up to 40 m (131')
Outdoor Line of Sight: Up to 120 m (400')

RF Output Power: 10 dBm (10 mW)

Sample Rate: 2 sec to 2 min

Radio Frequency (RF) Transceiver Carrier: ISM 2.4 GHz direct sequence spread spectrum

Outdoor Line of Sight: Up to 120 m (400')

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

Max 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)

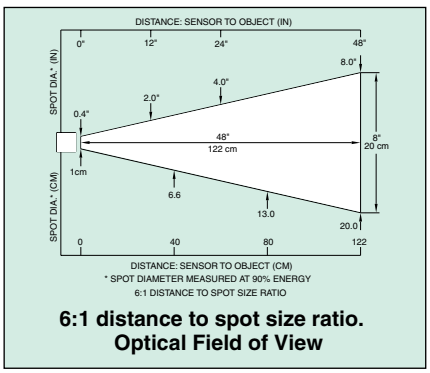
Operating Relative Humidity: Less than 95% RH, non-condensing

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

Power Indicator: Red LED

Power: One 3.6V, lithium "C" cell battery (included)

Dimensions: 145.8 L x 94.7 W x 50.8 mm H (5.74 x 3.73 x 2")



6:1 distance to spot size ratio. Optical Field of View

OS100-MB, mounting bracket, shown smaller than actual size.

OS100-LS laser sight fits in front of the IR head for accurate positioning, shown actual size.

Note: *Because of transmission frequency regulations, these products may only be used in the United States, Canada, Europe and China.*

To Order

Model No.	Description
UWIR-2A-NEMA	Non-contact wireless infrared transmitter with NEMA enclosure and remote sensor, 1.8 m (6') cable
UWIR-2A-NEMA-HT	Non-contact wireless infrared transmitter with NEMA enclosure and remote sensor, 1.8 m (6') cable, high temperature

Accessories/Receivers

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')
UWTC-REC1	USB powered 48-channel transmitter receiver
UWTC-REC2-(*)	48-channel receiver with analog output
UWTC-REC2-D-(*)	48-channel receiver with analog output and display
UWTC-REC3	32-channel wireless receiver with ethernet
UWTC-REC4-(*)	48-channel DIN rail receiver with 4 analog outputs and alarms
UWTC-REC6-(*)	1-channel transceiver with analog output
UWTC-CABLE	Spare USB programming/communication cable
UWM-DINRAIL	DIN rail mounting bracket assembly
BATT-C-3.6V	Replacement 3V C cell Li battery

Comes complete with operator's manual, antenna, and 3.6V lithium "C" battery.

***** *Specify analog output signal:* ***"V1"*** *for 0 to 5 Vdc;* ***"V2"*** *for 0 to 10 Vdc, or* ***"MA"*** *for 4 to 20 mA.*

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

UWIR-2A-NEMA-HT, *wireless infrared transmitter high temperature,* ***UWTC-REC2-D-MA,*** *48-channel transceiver/host with 1-channel, 4 to 20 mA analog output, alarm, and local display, and* ***OS100-LS,*** *laser sighting accessory.*