

# COMPACT NON-CONTACT INFRARED TEMPERATURE SENSOR/TRANSMITTER



OS137, \$345,  
shown actual size.

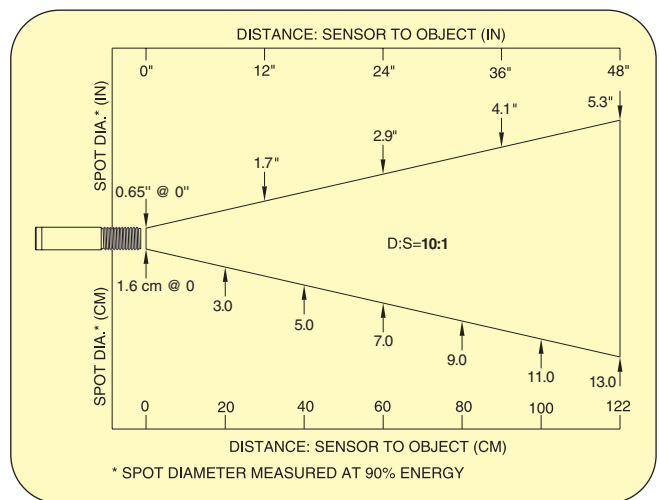
Compact stainless steel  
NEMA 4 housing.

OS137  
Starts at  
**\$345**



Each unit includes 2 hex mounting nuts,  
1.8 m (6') shielded cable and operator's manual.

- **3 Temperature Ranges Available:**  
OS137-1: 0 to 100°C (32 to 212°F)  
OS137-2: -18 to 260°C (0 to 500°F)  
OS137-3: -18 to 538°C (0 to 1000°F)
- **Sensor and Transmitter Combined**
- **Adjustable Emissivity**
- **Adjustable Alarm Setpoint and Output**
- **Packaged into a 25 mm (1.0") OD by 127 mm (5.0") Long Stainless Steel NEMA 4 Rated Housing**
- **10:1 Optical Field of View**
- **4 to 20 mA, 0 to 5 Vdc, 0 to 10 Vdc, 10 mV/Deg, and Type K Thermocouple Outputs Available**



Omega's new compact high performance industrial infrared sensor/transmitter model OS137 provides variety of features and options packaged into a small stainless steel housing. The standard features are adjustable emissivity, 10 to 1 optical field of view, adjustable alarm set point and voltage output to drive external relays, and 6 pre-selected analog outputs that can easily be interfaced to all meters, controllers, dataloggers, recorders, computer boards, and PLCs. The unit comes with 2 hex nuts, 1.8 m (6') shielded cable for power and output connections, and complete operator's manual.

## SPECIFICATIONS

### Temp Range:

**OS137-1:** 0 to 100°C (32 to 212°F)

**OS137-2:** -18 to 260°C (0 to 500°F)

**OS137-3:** -18 to 538°C (0 to 1000°F)

**Accuracy:** 1.5% rdg or 3.5°F (2°C) whichever is greater

**Repeatability:** 1% rdg or 2°F (1°C)

**Field of View:** 10 to 1

**Spectral Response:** 5 to 14 microns

**Emissivity:** 0.4 to 1.0, adjustable via a single turn pot

**Response Time:** 150 msec, 0 to 63% of final value

### Outputs:

**-MA:** 4 to 20 mA

**-V1:** 0 to 5 Vdc

**-V2:** 0 to 10 Vdc

**-K:** K thermocouple

**-MVf:** 10 mV/°F

**-MVC:** 10 mV/°C

**Alarm Output:** Voltage, 100 mA drive

Alarm Set Point: 0 to 100 % adj, set via pot

**Power:** 12 to 24 Vdc @ 50 mA

### Operating Temperature:

**With No Cooling:** 0 to 70°C

**With Water Cooling:** 0 to 200°C

**With Air Cooling:** 0 to 110°C

### Operating Relative Humidity:

Less than 95% RH, non-condensing

**Housing:** Stainless steel, Nema 4 and IP65

**Dimensions:** 25.4 OD x 127 L mm (1 x 5")

**Weight:** 226 g (0.5 lbs)

### LASER SIGHTING

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

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

**Max Laser Power Output:**

Less than 1 mW

### European Classification:

Class 2, EN60825-1/11.2001

**FDA Classification:** Class II, complies with 21 CFR 1040.10

**Laser Beam Diameter:** Less than 5 mm

**Beam Divergence:** Less than 2 mrad

**Power Switch:** Slide switch on the battery pack

**Power Indicator:** Red LED

### Caution and Certification Label:

Located on the head circumference

### Aperture and Identification Label:

Located on the head circumference

Connect your OS137 to a precision controller model CNI8DH, \$340, sold separately, please see [omega.com](http://omega.com) for complete information on this and other iSeries meters and controllers.



CNI8DH shown actual size.

### To Order (Specify Model Number)

### MOST POPULAR MODELS HIGHLIGHTED!

MODEL NO.	PRICE	DESCRIPTION
OS137-(*)-MV-F	\$345	Infrared transmitter with 10 mV/°F output
OS137-(*)-MV-C	345	Infrared transmitter with 10 mV/°C output
OS137-(*)-MA	345	Infrared transmitter with 4 to 20 mA output
OS137-(*)-V1	345	Infrared transmitter with 0 to 5 Vdc output
OS137-(*)-V2	345	Infrared transmitter with 0 to 10 Vdc output
OS137-(*)-K	345	Infrared transmitter with K T/C output

\* Insert "1" for 0 to 100°C (32 to 212°F); Insert "2" for -18 to 260°C (0 to 500°F); Insert "3" for -18 to 538°C (0 to 1000°F).

**Ordering Examples:** OS137-1-MA, infrared transmitter with temperature range of 0 to 100°C (32 to 212°F) and 4 to 20 mA output, \$345. OS137-1-V1, CNI8DH33 and PSR-24S, infrared transmitter with temperature range of 0 to 100°C (32 to 212°F) and 0 to 5 Vdc output, and 1/2 DIN temperature controller and 24 Vdc regulated power supply, \$345 + 345 + 60 = \$750.

### Accessories

MODEL NO.	PRICE	DESCRIPTION
OS137-MB	\$30	Mounting bracket
OS137-AP	30	Air purge collar
OS137-WC	150	Water/air cool jacket
OS137-LS	125	Laser sighting
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, 6' cord with stripped leads, 230 Vac input, CE
PSU-93	40	Unregulated power supply, 16 to 23 Vdc, 300 mA max, screw terminal
CAL-3-IR	125	NIST-traceable calibration

<sup>†</sup> OS137-LS laser sighting: 1 unit suitable for aligning multiple heads. Used during installation only. Ordering Example: OS137-MB, mounting bracket, \$30.





#### UNITED STATES

[www.omega.com](http://www.omega.com)  
1-800-TC-OMEGA  
Stamford, CT.

#### CANADA

[www.omega.ca](http://www.omega.ca)  
Laval(Quebec)  
1-800-TC-OMEGA

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## More than 100,000 Products Available!

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### • Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

### • pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

### • Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

### • Pressure, Strain and Force

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### • Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters