

Compact Non-Contact Infrared Temperature Sensor/Transmitter



OS137 shown smaller than actual size.

OS137 Series



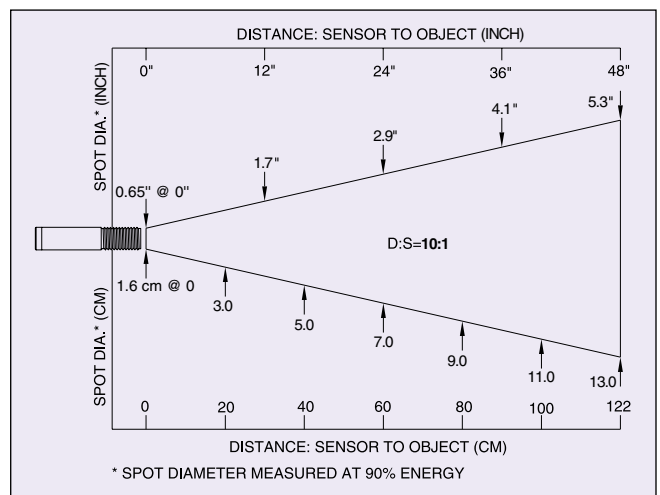
- ✓ 3 Temperature Ranges Available:
OS137-1: 0 to 100°C (32 to 212°F)
OS137-2: -18 to 260°C (0 to 500°F)
OS137-3: -18 to 538°C (0 to 1000°F)
- ✓ Sensor and Transmitter Combined
- ✓ Adjustable Emissivity
- ✓ Adjustable Alarm Setpoint and Output
- ✓ Packaged in a 25 mm (1.0") OD by 127 mm (5.0") Long Stainless Steel NEMA 4 (IP65) 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

The OMEGA® 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, data loggers, 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.

† Refer to accessories chart on next page for NIST calibration ordering information.



Compact stainless steel NEMA 4 housing.



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 (IP65)

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

Weight: 226 g (0.5 lb)

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

Accessories

Model No.	Description
OS137-MB	Mounting bracket
OS137-AP	Air purge collar
OS137-WC	Water/air cool jacket
OS137-LS††	Laser sighting
PSR-24S	Regulated power supply, 24 Vdc, 400 mA, screw terminal
PSR-24L	Regulated power supply, 24 Vdc, 400 mA, UL, stripped leads
PSR-24L-230	Regulated power supply, 24 Vdc, 400 mA, 6' cord with stripped leads, 230 Vac input, CE
PSU-93	Unregulated power supply, 16 to 23 Vdc, 300 mA max, screw terminal
CAL-3-IR†	NIST-traceable calibration

†† OS137-LS laser sighting: 1 unit suitable for aligning multiple heads. Used during installation only.

Ordering Example: OS137-MB, mounting bracket.



Connect your OS137 to a precision controller model CNi8DH, sold separately.



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

To Order Visit omega.com/os137 for Pricing and Details

Model No.	Description
OS137-(*)-K	Infrared transmitter with K thermocouple output
OS137-(*)-MV-F	Infrared transmitter with 10 mV/°F output
OS137-(*)-MV-C	Infrared transmitter with 10 mV/°C output
OS137-(*)-MA	Infrared transmitter with 4 to 20 mA output
OS137-(*)-V1	Infrared transmitter with 0 to 5 Vdc output
OS137-(*)-V2	Infrared transmitter with 0 to 10 Vdc 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).

Comes complete with two mounting nuts and operator's manual.

To order with longer power/output cable, up to 30 m (100'), add suffix "--(**)FT" to model number, and add an additional cost for each additional foot over 1.8 m (6").

** Specify length in feet.

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.

OCW-3, OMEGACARESM extends standard 1-year warranty to a total of 4 years.

OS137-1-V1 and CNi8DH33, infrared transmitter with temperature range of 0 to 100°C (32 to 212°F) and 0 to 5 Vdc output, and ½ DIN temperature controller.

OS137-1-V1-26FT, OS137 with 26 feet of power/output cable.