



Smart Infrared Temperature Sensors

OS35 Series Starts at **£214**



- ✓ Optics of 3:1 or 20:1
- ✓ Outputs of 0 to 5 V, 0 to 10 V, 4 to 20 mA, or RS232
- ✓ Ranges from -22 to 1000°C (-22 to 1832°F)
- ✓ Digital System with Auto Calibration
- ✓ Rugged Housing with Air Purge
- ✓ Automatic Emissivity Shift and Ambient Radiation Correction



OS35-20-MA-500C-24V, £560, shown larger than actual size.

The OMEGA OS35 Series infrared temperature sensors offer intelligence in a rugged, easy-to-use package. The OS35 is centred around a high-speed microprocessor that continuously monitors and adjusts the complete system. While performing the complex algorithms determining the output, it calibrates itself about once every second, removing any concerns over drift or sudden changes. Other advanced features include emissivity shift compensation and ambient radiation error correction. The rugged housing withstands thermal and mechanical shocks. The built-in air purge prevents dust, dirt, or condensing vapors from depositing on sensor optics, assuring long-term accuracy under all environmental conditions. The integral heat exchanger eliminates drift by automatically warming (or cooling) supply air to match the optical aperture temperature.

Specifications

Ranges: -30 to 70°C (-22 to 158°F), 0 to 100°C (32 to 212°F), 0 to 250°C (32 to 482°F), 0 to 500°C (32 to 932°F), 0 to 1000°C (32 to 1832°F)

Accuracy:

OS35-3: ±1°C or 1%

OS35-20: ±1.5°C or ±1.5% (± 2% for 0 to 1000 °C range)

Repeatability: ±1-bit, 0 to 100°C = ±0.1°C, 0 to 250°C = ±0.25°C, 0 to 500°C = ±0.5°C, 0 to 1000°C = ±1°C

Output: 0 to 5 V, 0 to 10 V (24 Vdc power only), 4 to 20 mA (50 Ω max), RS232 (12 Vdc power only)

Update Time: Approximately 250 ms

Emissivity Setting: 0.90

Spectral Response: 5.5 to 20 microns
Minimum Spot Size: 3.0 mm (0.12") 15.9 mm (0.625")

Power: 12 or 24 Vdc (10%). Shuts off when voltage is functionally low.

Output Impedance: 750 Ω on 0 to 5 V and 0 to 10 V models

Minimum Load Impedance: 100 kΩ

Maximum Loop Impedance: 1 kΩ max

Power Consumption: <800 mW at 24 Vdc and <600 mW at 12 Vdc

Ambient Temperature: 0 to 70°C (32 to 158°F)

Storage Temperature: -10 to 70°C (14 to 158°F)

Relative Humidity: 95% non-condensing

Construction: Heavy-duty alloy casting

Air Purge: Built-in with small aperture and heat exchanger that minimizes drift for superb accuracy

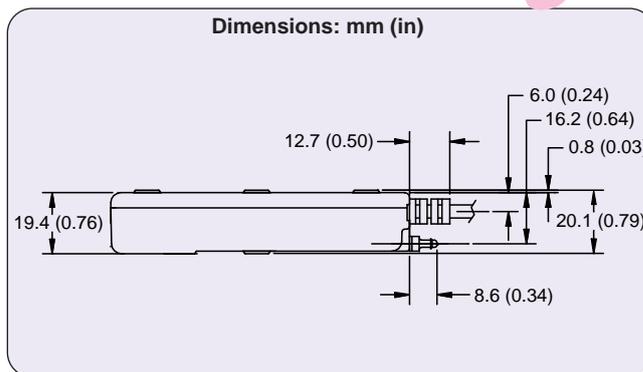
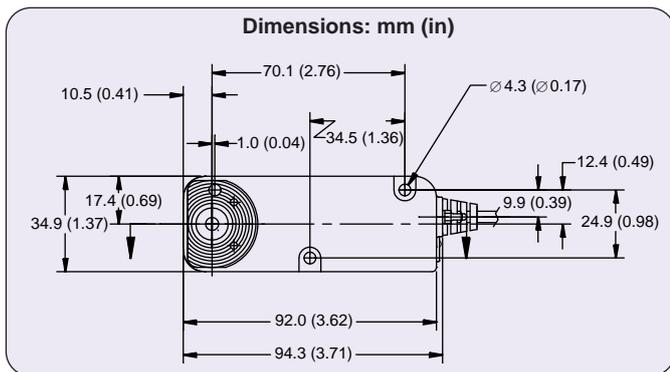
Air Tubing: 0.9 m (3') of polyurethane tubing 1/48 O.D. x 0.031 wall

Cable: 0.9 m (3') of 5-conductor, tinned copper, twisted pair polypropylene, insulated with shielded wire

Rating: IP54 (with air on)

Dimensions: 94.3 H x 34.9 W x 19.4 mm D (3.71 x 1.37 x 0.76"). OS35-20 models include a 41.3 x 19 mm (1.63 x 0.75") diameter snout

Weight: Approximately 227 g (8 oz)



MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)		
Model No.	Price	Description
OS35-3-MA-100C-24V	£214	Infrared temperature sensor, 3:1 optics, 0 to 100°C range
OS35-3-MA-250C-24V	214	Infrared temperature sensor, 3:1 optics, 0 to 250°C range
OS35-3-MA-70C-24V	281	Infrared temperature sensor, 3:1 optics, -30 to 70°C range
OS35-20-MA-100C-24V	492	Infrared temperature sensor, 20:1 optics, 0 to 100°C range
OS35-20-MA-250C-24V	492	Infrared temperature sensor, 20:1 optics, 0 to 250°C range
OS35-20-MA-500C-24V	560	Infrared temperature sensor, 20:1 optics, 0 to 500°C range
OS35-20-MA-1000C-24V	560	Infrared temperature sensor, 20:1 optics, 0 to 1000°C range
PE-1410	70	Reference Book: Practical Optics

* **Note:** For 12 V power requirement, change 24 V in model number to 12 V, no price change. For 5 V output, change MA to 5 V, no price change. For 10 V output, which is available only on 24 V power models, change MA to 10 V, no price change. For RS232 output, which is available only in 0 to 250°C range with 12 V power, change MA to RS, no price change.

Comes with air tubing and complete operator's manual.

Ordering Examples: **OS35-3-5V-100C-24V**, infrared temperature sensor, 3:1 optics, 0 to 100°C range, 0 to 5 V output, **£214**. **OCW-3**, OMEGACARE extends standard 1-year warranty to a total of 4 years (£53), £214 + 53 = **£267**.

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



UNITED STATES

www.omega.com

1-800-TC-OMEGA

Stamford, CT.

CANADA

www.omega.ca

Laval(Quebec)

1-800-TC-OMEGA

GERMANY

www.omega.de

Deckenpfronn, Germany

0800-8266342

UNITED KINGDOM

www.omega.co.uk

Manchester, England

0800-488-488

FRANCE

www.omega.fr

088-466-342

CZECH REPUBLIC

www.omegaeng.cz

Karviná, Czech Republic

596-311-899

BENELUX

www.omega.nl

0800-099-33-44



More than 100,000 Products Available!

• Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders, Relative Humidity Measurement Instruments, PT100 Probes, PT100 Elements, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples, Thermowells and Head and Well Assemblies, Transmitters, Thermocouple Wire, RTD Probes

• 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

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Pressure Transmitters, Strain Gauges, Torque Transducers, Valves

• 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