

Economical Wall-Mount Environmental Sensors and Transmitters

EWS Series
Starts at
\$36



- ✓ Thermocouple, RTD, or Thermistor Sensor Models
- ✓ Connects to Computer, Data Logger, or Industrial Controller/Meter

OMEGA's low-cost environmental wall mount sensors keep your office, computer room, or laboratory looking great. They are compatible with most process meters, controllers, recorders, data loggers, and data acquisition systems. Thermocouple, RTD, and thermistor models come with 1 m (40") leads. Temperature, temperature/humidity, and pressure units come with industry-standard, user-selectable 4 to 20 mA or 1 to 5 Vdc output.

Specifications

Enclosure Material:

Acrylonitrile butadiene styrene

Dimensions: 45 H x 54 W x 79 mm L (1.78 x 2.12 x 3.12")

Thermocouple Sensors

Max Temperature: 60°C (140°F)

Accuracy: ±1.1°C (1.98°F)

Sensor Types: J, K, T, E

Sensor Lead Length: 1 m (40")

Lead Material: 24 AWG, PFA coated

RTD Sensor

Max Temperature: 60°C (140°F)

Accuracy: ±1°C (1.8°F)

Sensor Type: 100 Ω Pt 0.00385

Sensor Lead Length: 1 m (40")

Lead Material: PFA insulated, 3-conductor 26 AWG stranded nickel-plated copper

Thermistor Sensor

Max Temperature: 60°C (140°F)

Accuracy: ±0.2°C (0.36°F)

Sensor Type: OMEGA® 400 Series 2252 Ω @ 25°C

Sensor Lead Length: 1 m (40")

Lead Material: PVC insulated, 2-conductor 22 AWG stranded nickel-plated copper

Temperature Transmitter

Range: -18 to 57°C (0 to 135°F)

Accuracy@ 25°C:

In Still Air: ±0.7°C

(±1.2°F) @ 24°C; 1.4°C

(±2.5°F) across full range

In Moving Air: ±1.4°C

(±2.5°F) @ 25°C; ±1.7°C

(±3°F) across full range

Repeatability: ±0.3°C (±0.5°F)

Output: 4 to 20 mA or 1 to 5 Vdc (scaled across range)

Temp Time Constant (for 63.2% Response): 9 s in moving air

(1m/s), 30 s in still air

Power: 8 to 24 Vdc @ 20 mA

Max Loop Resistance:

$\Omega = (V \text{ supply} - 8 \text{ V})/0.02 \text{ A}$

Sensor Type: Solid state

Temperature/Humidity Transmitter

Range: 5 to 95% (non-condensing)

Accuracy@ 25°C: From 5 to 20%, ±4% RH; from 20 to 80%, ±3% RH; from 80 to 95%, ±4% RH

Repeatability: ±1% RH

Output: 4 to 20 mA or 1 to 5 Vdc (scaled for 0 to 100% RH)

Power: 8 to 24 Vdc @ 20 mA

Max Loop Resistance:

$\Omega = (V \text{ supply} - 8 \text{ V})/0.02 \text{ A}$

EWS-BP-A, \$145, shown smaller than actual size.



RH Time Constant: 100 s from 20 to 90%, 60 s from 90 to 20%

Sensor Type: Thin-film polymer capacitor (see Temperature Transmitter for temperature specifications)

Barometric Pressure Transmitter

Pressure Range: 20.8 to 32 inHg (10.2 to 15.7 psi)

Temp Compensation: Across full range

Accuracy: ±1% of span @ 25°C (77°F) ±0.11%/°C (0.06%/°F)

Operating Temp Range:

0 to 60°C (32 to 140°F)

Output: User-selectable 4 to 20 mA, 1 to 5 Vdc

Power: 8 to 24 Vdc @ 20 mA

Max Loop Resistance:

$\Omega = (V \text{ supply} - 8 \text{ V})/0.02 \text{ A}$

Media Compatibility: Clean, dry air and non-corrosive gases



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.

MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)		
Model No.	Price	Description
EWS-TC-(*)	\$36	Thermocouple sensor
EWS-RTD	46	RTD sensor (100 Ω Pt 0.00385)
EWS-TH	46	400 Series thermistor sensor
EWS-TX	69	Temperature transmitter
EWS-RH	145	Temperature/humidity transmitter
EWS-BP-A	145	Barometric pressure transmitter
EWS-MB	12	Conduit box mounting bracket/wall plate adaptor kit
PSR-24S	60	Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, screw terminals, UL
PSR-24L	60	Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, stripped leads, UL
PSR-24L-230	60	Regulated power supply, European plug, 230 Vac input, 24 Vdc output, 400 mA, stripped leads, CE
PSU-93	40	Unregulated power supply, 16 to 23 Vdc, 300 mA max, screw terminal
TX4-100	35	Shielded 4-conductor transmitter cable, 30.5 m (100')

* Insert thermocouple Type J, K, T or E

Note: "-TC" and "-TH" models come with 1 m (40") of lead wire. For longer lead wire, add suffix "-(#)FT" and add \$1.00/ft (over 3') to price. For "-RTD" models, add \$2.25/ft to the price. **Example:** EWS-TC-K-8FT, wall mount Type K thermocouple sensor with 8' lead wire, \$36 + 5 = \$41.

Ordering Examples: EWS-TX, temperature transmitter EWS-MB, bracket/wall plate, PSU-93, power supply, TX4-100 transmitter cable, \$69 + 12 + 40 + 35 = \$156.

OCW-3 OMEGACARESM extends standard 1-year warranty to a total of 4 years, \$69 + 25 = \$94.



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
Guyancourt, France
088-466-342

CZECH REPUBLIC

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Karviná, Czech Republic
596-311-899

BENELUX

www.omega.nl
Amstelveen, NL
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• Temperature

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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

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, Strain Gages, 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