OM-40 Series Portable Low Cost Data Loggers Part of the NOMAD® Family

$62
Basic Unit

1 YEAR WARRANTY — MADE IN USA

- **Measure and Record Temperature, Relative Humidity, DC Voltage or DC Current Input**
- **Stores up to 7943 Readings**
- **Compact Size**
- **Easy-to-Use Windows Software**

The OM-40 Series data loggers can record temperature, relative humidity, 4 to 20 mA and 0 to 2.5 Vdc signals. Model OM-41 measures temperature only (internal temperature sensor). Model OM-42 is a two channel data logger that measures temperature (internal sensor) and also one external signal which can be an external temperature probe, 4 to 20 mA signal or 0 to 2.5 Vdc signal. Model OM-43 measures temperature and relative humidity (internal sensors). Model OM-44 is a four channel data logger that measures temperature and relative humidity (internal sensors) and also up to two external signals which can be external temperature probes, 4 to 20 mA signals or 0 to 2.5 Vdc signals.

The internal temperature sensor is on a 10.6 cm (4") wire which is mounted on the circuit board inside the snap lid of the datalogger case. Typically this sensor is left inside the case and measures ambient air temperature over the operating temperature range of the logger -20 to 70°C (-4 to 158°F).

The internal temperature sensor can also be placed outside of the case, for faster response time. When the sensor is placed outside of the case it is capable of measuring temperatures from -40 to 120°C (-40 to 248°F).

OM-41 data logger, $62, shown larger than actual size

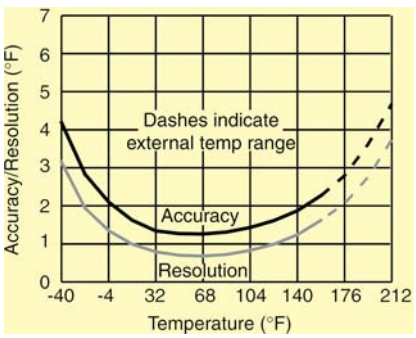
Specifications

GENERAL

Measurement Capacity: 7943 readings
Measurement Interval: User selectable from 0.5 sec to 9 hrs
Memory Modes: Stop when full, wrap-around when full (user selectable)
Memory: Non-volatile EEPROM memory retains data even if battery fails
Operation: Blinking LED light confirms operation
Time Accuracy: ±1 minute per week at 20°C (68°F)
Operating Temperature: -20 to 70°C (-4 to 158°F)
Operating Humidity: 0 to 95% non-condensing
Storage Temperature: -20 to 70°C (-4 to 158°F)
Power: 3.0 V lithium battery (included)
Battery Life: 1 year
Dimensions: 68 H x 48 W x 19 mm D (2.4 x 1.9 x 0.8")
Weight: 29 g (1 oz)

Measurement Specifications Temperature (internal sensor) - All Models

Measurement Range: Sensor inside case, -20 to 70°C (-4 to 158°F); sensor outside case, -40 to 120°C (-40 to 248°F)
Sensor Type: Thermistor
Accuracy: ±0.7°C@21°C (±1.27°F @ 70°F) (see plot)

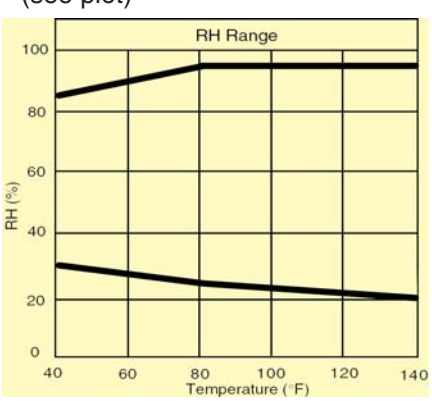


Temperature Measurement Accuracy/Resolution

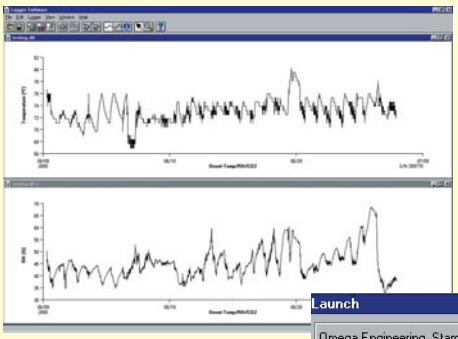
Resolution: 0.4°C (0.7°F) at 70°F
Response Time (Still Air): 15 min typical with sensor inside case; 1 min typical with sensor outside case

Relative Humidity (user-replaceable internal sensor) Models OM-43 and OM-44

Measurement Range: 25 to 95% RH at 80°F for intervals of 10 seconds or greater, non-condensing and non-fogging (see plot)

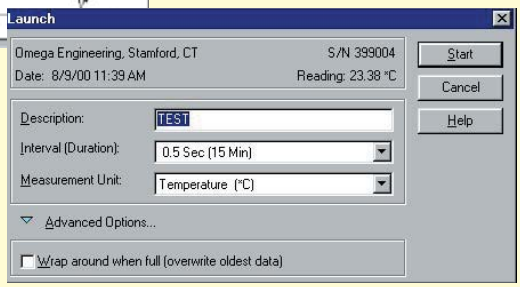


Relative Humidity Measurement Range vs. Temperature



Windows Software-Data Plot.

OM-44 data logger, $95, shown smaller than actual size.



Windows Software-Data logger Setup.

OM-43, $85, data logger smaller than actual size.

Sensor Type: Resistive
Accuracy: ±5%
5 to 50°C (41 to 122°F)
Resolution: 0.4%
5 to 50°C (41 to 122°F)
Response Time:
10 min typical in air

External Temperature Sensors (for use with Models OM-42 and OM-44) Measurement Range:
OM-40-C-HT-B (for use in water or soil): -40 to 50°C (-40 to 122°F)
OM-40-C-HT-B (for use in air)**:** -40 to 100°C (-40 to 212°F)
Sensor Type: Thermistor
Input Connection:
2.5 mm stereo phone jack

External 4 to 20 mA Input (for use with Models OM-42 and OM-44) Measurement Range: 0 to 20.1 mA

Input Connection:
2.5 mm stereo phone jack
Accuracy: ±0.1 mA ±1% rdg
Resolution: 0.4% of fs

External 0 to 2.5 Vdc Input (for use with Models OM-42 and OM-44) Measurement Range:
0 to 2.5 Vdc

Input Connection:
2.5 mm stereo phone jack; external input ground, input, switched 2.5 V output; external input ground connection is not the same as PC interface connection ground and should not be connected to any external ground
Input Impedance: 10 kΩ
Accuracy: ±10 mV ±1% rdg
Resolution: 10 mV (8-bit)
Output Power: 2.5 Vdc at 2 mA, active only during measurements

ALL MODELS AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
OM-41	**$62**	Temperature data logger
OM-42	**69**	Temperature/external input data logger (takes one external input)
OM-43	**89**	Temperature/relative humidity data logger
OM-44	**99**	Temperature/relative humidity/external input data logger (takes up to two external inputs)
OM-40-C-HT-B	**32**	External temperature sensor for use with Models OM-42 and OM-44 (high temperature range, for use in air or water) 1.8 m (6') cable
OM-40-C-V	**10**	External 0 to 2.5 Vdc voltage input cable for use with Models OM-42 and OM-44
OM-40-C-I	**18**	External 4 to 20 mA input cable for use with Models OM-42 and OM-44
RD-TEMP-SW-A	**20**	Windows 95/98/NT/2000/XP software and RS-232 interface cable with DB9F termination for OM-40 Series data loggers
OM-40-HUM	**16**	Replacement humidity sensor for Models OM-43 and OM-44
OM-40-BATT-6	**14**	Replacement 3.0 V lithium battery for OM-40 Series data loggers (package of 6)

Data loggers are supplied with complete operator's manual and mounting kit (hook/loop, magnet and tape).
Ordering Example: OM-44 data logger, OM-40-C-HT-B** external temperature sensor, **OM-40-C-V** voltage input cable, and **RD-TEMP-SW-A** Windows software, $99 + 32 + 10 + 20 = **$161.

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• Flow and Level

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