

OM-PQR1010 Power Line and Environmental Monitor

\$995

Basic Unit



- ✓ Measures All Types of Disturbances Including Spikes, Sags, Surges, Common Mode Noise, High Frequency Noise, Dropouts, Power Failure
- ✓ Datalogging - Stores Average Reading Every Minute for Up to 11 Days on Each Channel
- ✓ 1500 Event Storage Per Input, 9000 Events Total for 6 Channels
- ✓ Records Magnitude, Time and Date of Each Disturbance

Electronic equipment is damaged more often by power disturbances than by fire, theft and vandalism combined. Intermittent power problems are the most expensive hidden expense to users of microprocessor-based equipment. The OM-PQR1010 power quality recorder is a state-of-the-art, fully integrated instrument that measures, records and reports power disturbances, aiding in the analysis of power quality in medical, commercial and industrial applications.

The OM-PQR1010 monitor unit will detect a wide range of power disturbances including spikes, sags, surges, common mode noise, dropouts and high frequency noise on two phases of AC voltage and one DC voltage channel; it will also test the temperature, humidity and ac current. For ac current measurement, the OM-PQR1010 is equipped with a pair of banana jacks designed to accept a 10 mV/A output current transducer (CT). Disturbances detected on multiple channels are recorded by their time, date, magnitude and duration in a non-volatile RAM memory. Stored data can then be downloaded and analyzed by connecting the OM-PQR1010 to your PC's serial port and running the included



Model OM-PQR1010, \$995, shown with included temperature probe, AC voltage test leads, DC voltage test leads, RS-232 cable, power cord and Windows software CD.

Shown smaller than actual size.



OM-PQR1010 software

OM-PQR1010, \$995, shown smaller than actual size

Windows data analysis software. Input connections to the OM-PQR1010 are made between the safety connectors on the back of the unit and the circuit panel to be tested. The OM-PQR1010 operates on standard 110 Vac/220 Vac power. Once plugged in, the OM-PQR1010 immediately begins testing the signals on the input connectors.

Specifications

GENERAL

- Summary Event Count:** 56,000 of each event type
- Detail Storage:** 1500 events per channel

Data Retention:

5 years without power

Datalogging Sample Rate:

Programmable from 1 reading per second to 1 reading per 4 minutes

Impulse Detection:

500 nanoseconds

Communications: RS-232, 1200 to 19,200 baud (programmable), 8 data bits, 1 stop bit, no parity

Input Connections: ac voltage, safety banana jacks; dc voltage, BNC; current (CT), banana jacks; temperature, phone jack; humidity, mini-DIN

Operating Temperature: 0 to 50°C (32 to 122°F), 10 to 80% RH non-condensing

Operating Voltage: 12 to 30 Vdc, 80 to 260 Vac

Operating Current: 0.1 A

Operating Line Frequency: DC to 400 Hz

Weight: 1.8 kg (4 lb)

Dimensions: 203 mm H x 254 mm W x 51 mm D (8 x 10 x 2")

Power Cord: 1.8 m (6')

AC/DC VOLTAGE CHANNELS DATALOGGING

Range: ac voltage, 80 to 520 Vac RMS; dc voltage, ± 1 to ± 52 Vdc

Accuracy: $\pm 1.5\%$

SAGS/SURGES

Threshold: 5% and 10% of average, or user programmed levels

Duration Limits: 1 cycle or 20 ms

Accuracy: $\pm 1.5\%$

DROPOUTS

Threshold: AC voltage, less than 10 V RMS; DC voltage, less than 10% of avg

Duration Limits: longer than 8 ms, shorter than 80 ms

POWER FAILURES

Threshold: ac voltage, less than 10 V RMS; dc voltage, less than 10% of avg

Duration Limits: Longer than 80 ms

IMPULSES

Resolution: 2 channels: 20 V to > 2500 V peak

Threshold: 20, 70, 140, 300, 850, 2.5 kV

Duration Limits: 500 nanoseconds above threshold

Accuracy: $\pm 10\%$

HIGH FREQUENCY NOISE

Range: 2 volts peak, 10 kHz to 10 MHz

Accuracy: $\pm 10\%$

Response Time: 1 ms

AC VOLTAGE LINE FREQUENCY

Range: 40 to 400 Hz

Accuracy: $\pm 1\%$

Response Time: 1 AC cycle

Threshold: $\pm 2\%$ deviation from average

HUMIDITY CHANNEL DATALOGGING

Range: 10% to 90% RH non-condensing

Accuracy: $\pm 5\%$

SAGS/SURGES

Threshold: 5% and 10% of average, or user programmed levels

Duration Limits: 2 seconds

Accuracy: $\pm 5\%$

CURRENT CHANNEL DATALOGGING

Input: Current transducer (CT), 10 mV/A output

Range: 0.2 A to 1000 A RMS

Accuracy: $\pm 1.5\%$

SAGS/SURGES

Threshold: 5% and 10% of average, or user programmed levels

Duration Limits: 20 ms

Accuracy: $\pm 1.5\%$

DROPOUTS

Threshold: Less than 10% of average

Duration Limits: Longer than 8 ms, shorter than 80 ms

POWER FAILURES

Threshold: Less than 10% of average

Duration Limits: Longer than 80 ms

TEMPERATURE CHANNEL DATALOGGING

Sensor: Semiconductor transistor

Range: -7 to 121°C (20 to 250°F) (0.02 to 2.5 Vdc)

Accuracy: $\pm 1\%$

Sample Rate: Programmable from 1 reading per second to 1 reading per 4 minutes

SAGS/SURGES

Threshold: 5% and 10% of average, or user programmed levels

Duration Limits: 2 seconds

Accuracy: $\pm 1.5\%$



OM-PQR1010, \$995, shown smaller than actual size



OM-PQR1010 software



AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)		
Model No.	Price	Description
OM-PQR1010	\$995	Power line and environmental monitor
OM-PQR-HUMIDITY	129	Humidity probe for OM-PQR1010
CS-3776	50	Reference Book: Analog & Digital Circuits for Control System Applications

Each OM-PQR1010 is supplied with 1.8 m (6') power cord, RS-232 communications cable with DB9F termination, Windows 98/NT/2000/XP data analysis software, temperature probe, one set of ac voltage test leads and one set of dc voltage test leads. Humidity probe must be ordered separately.

Ordering Example: OM-PQR1010 power line and environmental monitor, OMEGACARESM 1-year extended warranty for OM-PQR1010 (adds 1 year to standard 1-year warranty), and OM-PQR-HUMIDITY humidity probe, \$995 + 99 + 129 = \$1223.



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