OM-220

$1632
Basic System
Including One Input Module

Versatile Portable Datalogging System
in Weather Proof Case

Records from a Wide Range of Signal Sources

SERIAL I/O

- **Portable, Weatherproof Battery Operation**
- **1 to 16 Channel Recording Capability**
- **Individually Settable Channel Sample Rates (on Dual Input Modules Only)**
- **Input Modules for Most Sensor Types**
- **DOS Software Included**
- **12-Bit Analog to Digital Converter**
- **Remote Downloading via Modem**

Don't let harsh environments, limited space, or cumbersome equipment discourage you from performing on-site testing and measurement. Let the OMEGA OM-220 portable data logging system serve as a useful link in your data gathering process, by field recording a variety of data from a range of signal sources. Following measurement, data can be downloaded into a PC for graphic display and analysis using most standard software programs such as Lotus or Excel.

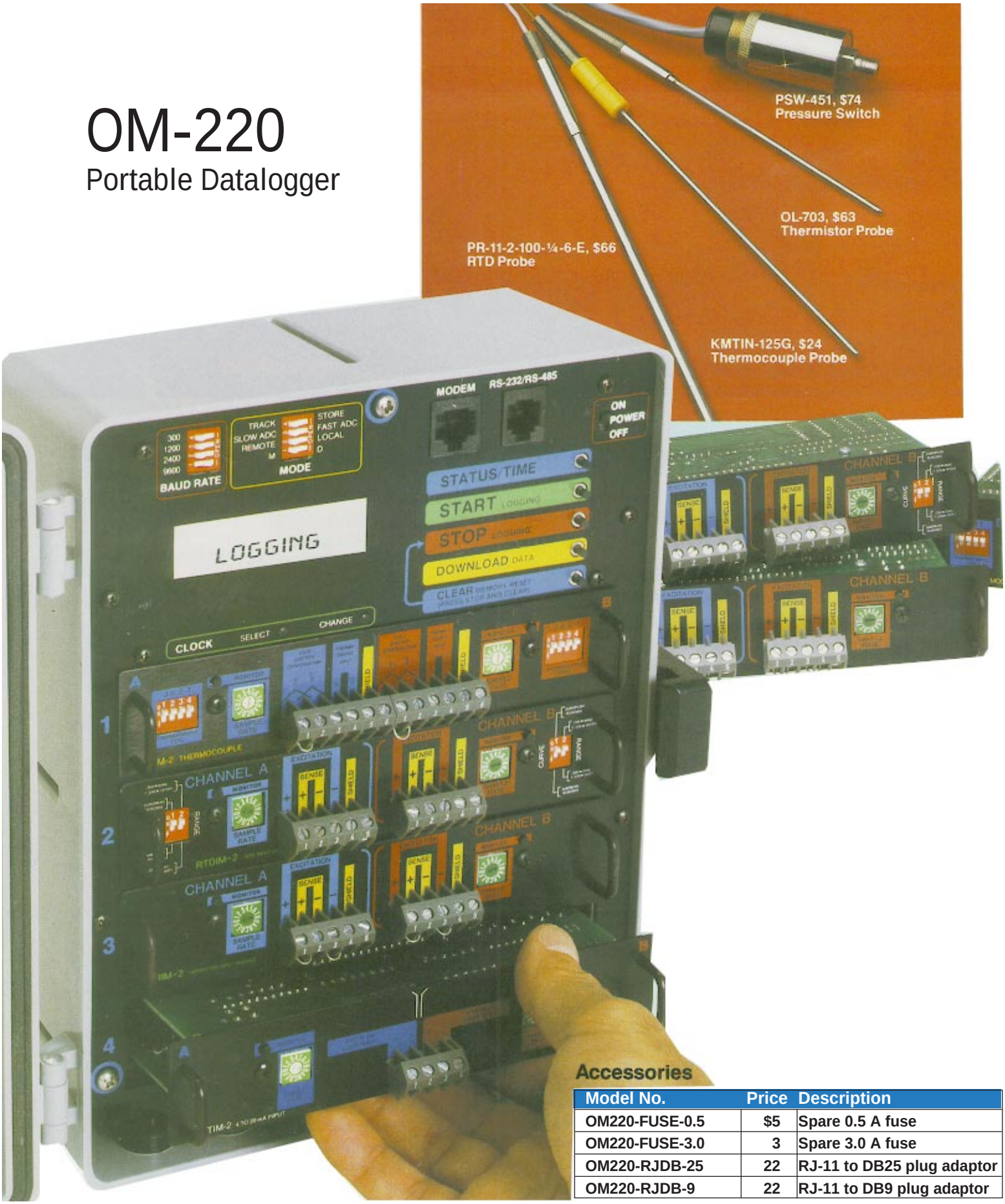
A wide selection of input modules lets you monitor almost all physical parameters, including current, pressure, voltage, humidity, temperature, resistance, frequency, 4-20ma loop, and pulse integration. A maximum of four modules can be accommodated, each with four channels, allowing up to sixteen sensor channels to be monitored. Each module has a terminal strip for sensor connections, a rotary switch for setting sample rates (from once per second to once per 12 hr), and set-up switches to adapt a channel to a specific sensor type.
DOS software is included with each datalogger. You may download data directly into your pc via RS-232, or you may connect to it via modem, where you can also view data in real time.

SPECIFICATIONS

SYSTEM BASE (see module specs)
Memory:
OM-220 - 22,000 samples;
OM-220-EXM-1 - 55,000 samples
A/D resolution: 12 bit integrating
A/D accuracy: +/- 0.1% RDG, + 1 bit
Serial Data Format: ASCII with coded header, 8 data, 2 stop, no parity, X modem
Serial Ports: either RS-232 or external modem
Baud Rates: 300, 1200, 2400, 9600 switch selectable
Input Channels: up to 16 channels (using 4 channel modules)
Display: two line, 16 character per line
Clock: Date and time, 24hr
Power Requirements: 9 Vdc (1ma sleep, 50ma during conversions)
Internal Power: six 1.5V size C battery
Data Memory Backup: Battery, 2 yrs at 25C
Operating Temp: 14 to 140F (-10 to +60C)
Storage Temp: -30 to +70C
Relative Humidity: 5-90% non-condensing
Enclosure: NEMA 4, gasketed rain-proof plastic with liquid tight fittings
Dimensions: 9.75" W X 8.5" H x 5.5" D
Weight: 4lb (including batteries) not including modules. (add .25lb per module

OM-220

Portable Datalogger



Accessories

Model No.	Price	Description
OM220-FUSE-0.5	$5	Spare 0.5 A fuse
OM220-FUSE-3.0	3	Spare 3.0 A fuse
OM220-RJDB-25	22	RJ-11 to DB25 plug adaptor
OM220-RJDB-9	22	RJ-11 to DB9 plug adaptor

Note: one OM220-RJDB-25 comes with OM-220 logger

MODULE SPECIFICATIONS

GENERAL, ALL MODULES
Input Channels: two or four per module, differential input
Sample Rates: 1,2,5,15,30 sec; 1,2,5,15,39 min; 1,2,4,6,12 hr and OFF (6 samples/second in burst mode).
Input Protection: Voltage transient, spike protection to 1.2 kV for 6 usec
Operating Temperature: -20 to +60C (-4 to 140F)
Relative Humidity: 90%, non-condensing
Installation Interface: 6" mini-rack mount, 32 pin DIN connector compatible with system base

THERMOCOUPLE INPUT MODULES
Thermocouple type: J,K,E, or T dip switch selectable (4 channel modules share same type)
Throughput Accuracy: +/- 1.0C over full ambient operating range
Cold Junction Compensation: Thermistor integral to input module terminal strip. Connections for ext. CJC provided
Cold Junction Compensation Accuracy: +/- 0.5C (add to Throughput Accuracy above)

THERMISTOR INPUT MODULE
Sensor Type: 10,000 ohm at 25C NTC thermistor, Fenwall curve 16 or equivalent: Omega 44016 or 44036 elements
Input Range: -30 to 175C (-22 to 325F)
Throughput Accuracy: +/- 0.3C over full ambient range

RTD INPUT MODULE
Sensor Type: Pt100 Ohm platinum RTD
Sensor Curve: European (0.00385) or American (0.00390) alpha, switch selectable
Excitation: 1.2 ma, 5 Vdc open circuit voltage
Input Ranges: limited, -200 to +200C; full, -200 to +800C, switch selectable
Throughput Accuracy: limited range, +/- 0.2C; full range, +/-1C

VOLTAGE INPUT MODULE
Signal Input: dc Volts: +/-200 mvdc, +/-2 Vdc, +/-20 Vdc
Throughput Accuracy: +/- 0.1% FS (+/-0.2% on 20 Vdc)
Input CMR: 74 dB min
Common Mode Input Range: 3.5 Vdc
Input Resistance: 5 M Ohm

CURRENT INPUT MODULE
Signal Input: dc current: +/- 20 ma, +/- 200 ma, +/- 2A
Throughput Accuracy: +/- 0.3% FS
Input CMR: 80 dB min
Common Mode Input Range: +/-3.5V dc
Input Resistance: 10ohm on 20 ma and 200ma ranges, 0.1ohm on 2A range

4-20 ma INPUT MODULE
Input Signal:Industry standard 4-20ma current loop
Input Resistance: 1-- ohm
Resolution (system): 10uA
Throughput Accuracy: +/-0.4% of reading

BRIDGE INPUT MODULE
Input Signal: Full Wheatstone Bridge
Input Resistance: 5 Mohm
Excitation Input Range: 0-20 Vdc (user provided)
Signal Input Ranges: 50 mv and 200 mv FS
Throughput Accuracy: +/- 0.4% of reading with Vexc greater than 2V

DIGITAL/PULSE INPUT MODULE
Inputs: two, each as frequency, event or count
Input Signal: Event and counter: contact closure or 0-15V max; Frequency: AC, 300 mv p-p Min, 15 V p-p max
Frequency Function Input Range: 2.0 Hz to 25 kHz
Event Function Resolution: 1 sec
Counter Function: Max 65535 counts between

Model No.	Price	Description
OM-220	$1350	Logger with 22k samples
OM-220-EXM-1	1500	Logger with 55k samples
OM-220-TCIM-2	225	2 ch. Thermocouple module
OM-220-TCIM-4	420	4 ch. Thermocouple module
OM-220-VIM-2	240	2 ch. Voltage input module
OM-220-VIM-4	420	4 ch. Voltage input module
OM-220-FTTIM-2	225	2 ch. 4-20ma input module
OM-220-FTTIM-4	420	4 ch. 4-20ma input module
OM-220-TRIM-2	225	2 ch. Thermistor module
OM-220-RTDIM-2	225	2 ch. RTD input module
OM-220-CIM-2	240	2 ch. Current input module
OM-220-BRIM-2	270	2 ch. Bridge input module
OM-220-DPIM-2	225	2 ch. Digital/pulse module
OM-220-BIM-2	19	Blank module cover
OM-220-ACP-10	14	AC Power transformer
OM-220-RPS-1	395	Rechargeable power source
OM-220-CAM-4	28	Modem cable

Loggers come with serial cable with DB-25 plug adaptor, fittings, mounting hardware and DOS software.
Order one logger and up to 4 input modules. Use OM-220-BIM-2 for empty slots. OM-220-ACP-10 is for AC operation. OM-220-RPS-1 powers logger and provides sensor excitation up to 22Vdc

For Sales or Service
1-800-826-6342