

# DataMate MP Readout



## Advantages

**Reads many types of sensors:** The DataMate MP can do the work of several dedicated readouts. It can read Slope Indicator's VW sensors, EL sensors with signal conditioning, potentiometers, load cells, Digitilt tiltmeters, RTDs, and thermistors.

**Ready to use:** In manual mode, the DataMate is ready to use, right out of the box, with no extra preparation.

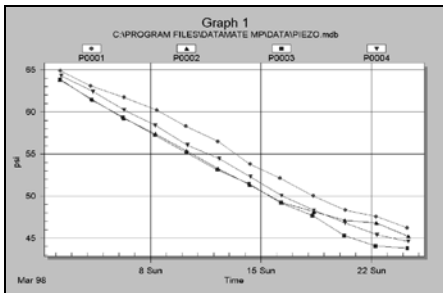
**Records multiple parameters:** Many sensors are equipped with thermistors, RTDs, or other secondary channels. The DataMate records all channels in one step.

**Reads electronic IDs:** An EID is a small chip that can be wired into a connector or terminal box to serve as an electronic identifier for a particular sensor. When the DataMate detects the EID, it automatically selects the appropriate sensor in its sensor list, eliminating mismatches between sensors and recorded data.

**Simplifies data reduction:** The Manager program retrieves data with just a few mouse clicks. One more click starts MP Graph, which lets you view and graph the data. You can also export graphs and data to other programs, such as word processors and spreadsheets.

## Applications

The DataMate MP is a multi-purpose readout that can display and record readings from many types of sensors. The DataMate is designed for hard use in difficult environments. Its electronic components are rated for extended temperatures, and its bright, backlit display is visible under all lighting conditions.



MP Graph is included with the DataMate MP. It lets you view, plot, and export data and graphs.

## Overview of Operation

The DataMate MP has a "manual mode" that lets you read sensors as if you were using a manual readout. In this mode, readings are not recorded.

The real power of the DataMate becomes available when it is used with MP Manager and MP Graph: Using the MP Manager program, you create a list of sensors and transfer the list to the DataMate. The list holds sensor IDs, calibration factors, and engineering units.

To take readings, you connect the DataMate MP to a sensor or terminal box and scroll through the sensor list to select a sensor. If an electronic ID is present, the DataMate selects the appropriate sensor automatically. You then press Enter to excite the sensor and record a reading.

Later, you retrieve readings with the MP Manager program, which stores them in a Microsoft Access® database. Then you can view the data and generate graphs with the MP Graph program.

## DATAMATE MP SPECIFICATIONS

**General Description:** Multi-purpose recording readout .

**Sensor Compatibility:** Reads Slope Indicator's vibrating wire sensors, EL sensors with signal conditioning, potentiometers, full-bridge sensors (such as Slope Indicator's load cells), Digitilt tiltmeters, RTDs, and thermistors. It can also be used to "null" non-signal conditioned EL beam sensors and tiltmeters.

Note that the DataMate MP does not replace the Digitilt DataMate, which stores inclinometer readings in a special format.

**Resolution:** The DataMate displays 6-digit readings with a floating decimal point. This 20-bit resolution is equivalent to 1 part per million.

**Engineering Units:** The DataMate can display engineering units, when required. However, the recommended procedure is to use raw units, such as Hz for VW sensors.

**Memory Capacity:** The DataMate can store more than 8,000 time-and-date stamped readings. Memory is battery-backed for security.

**Display:** 128 x 64 LCD with extended temperature rating. Top half of display shows current reading. Bottom half of display shows sensor list and most recent reading.

**Electronic ID:** When the DataMate detects an electronic ID, it searches its sensor list for a sensor with a matching EID. If a match is found, the sensor is selected and the appropriate excitation and calibration factors are readied. If no match is found, the DataMate displays a message and then shows the full sensor list.

**Communication:** The MP Manager initiates communication with the DataMate. Communication requires an interface cable (supplied) and an RS-232 port on the PC. The DataMate cannot initiate communications.

**Operating Time:** 10 hours continuous reading of VW or EL sensors at 20°C. Operation time is shorter with sensors that draw more power, with use of backlight, and if operated in cold weather.

**Battery:** Rechargeable 12 volt, 2Ah battery, part number 0194009; Panasonic part number PV-BP50; Telepower part number TP2012D. Universal charger is included and provides a charge time of about 16 hours. (Detachable charger cord uses IEC computer plug).

**Temp Limits:** -20°C to 50°C.

**Case:** ABS plastic, splashproof.

**Size:** 292x107x64mm (11.5x4.2x2.5inch).

**Weight:** 1.65kg (3.7lb).

## MP MANAGER

**General Description:** Computer software included with the DataMate. Used to create the project database and sensor list. Sends sensor list to DataMate and retrieves readings from DataMate via interface cable and RS232 serial port. Sets DataMate preferences, and manages DataMate memory.

**Computer Requirements:** Windows 95 to XP, 64 megabytes of RAM, 6 megabytes of disk space, and one serial port. The program does not run on Windows 3.x or DOS.

**Data Format:** MDB (Microsoft DataBase).

## MP GRAPH

**General Description:** Graphing program included with the DataMate.

**Functions:** Plot readings (or change in readings) against time. Correlate readings against a selected sensor. Export graphs to clipboard and paste into another application, such as a word processor document. Save ten different graphs for each database. Update graphs by changing date range. View data table, sort by sensor, date, or any other column heading. Export data to ASCII file with comma separated values (.csv) for easy import into spreadsheet.

**Data Format:** Uses Microsoft Access "Readings" table generated by MP Manager program.

## ORDERING INFORMATION

**DataMate MP** . . . . .57710900

Includes DataMate MP, bare-wire adapter, battery and universal battery charger, adjustable strap, interface cable and adapter for PC, MP Manager and MP Graph software and manuals on CD-ROM. Please specify type of charger plug: US, EUR, AUS, UK.

**Terminal Box with EIDs** . . . . .57711620

Provides connections for 12 sensors and readout. Includes 12-position rotary switch and 12 built-in EID chips. Weatherproof fiberglass box measures 290x345x135mm deep (11.5x13.5x 5.25 inch).

**EID Chip** . . . . .57711650

One EID chip with extended leads, suitable for soldering into connector or inserting in terminal strip.

