



MCE - ESNET-P Pumped Real Time Monitoring System

- 3G / GPRS / GSM
- Robust IP66 Case
- Integrated pump
- Low maintenance
- Analogue / Digital IP
- Digital Output
- Internal Data storage
- Internal batteries
- Flowcell for sonde
- Web Enabled
- Secure, instant data

The MCE-ESNET-P is part of the Meteor ESNET Modular Monitoring System. It is a complete stand-alone pumped water quality monitoring System. It allows high resolution, real time water quality data to be Acquired from water bodies which are subject to low flow or high fouling. The ESNET-P is designed for use with a multiparameter water quality Sonde which is fitted into the integrated flow cell. Representative samples of water are automatically pumped into the flowcell using the inbuilt peristaltic pump. When analysis of the sample is complete the water sample is returned, leaving the flowcell empty. The design allows for a wide variety of other environmental sensors to be connected for simultaneous data acquisition. Data is transferred in real time over 3G, GPRS or GSM to the Meteor Data Centre, where all information can be accessed via secure web portal.

The robust IP66 PELI enclosure houses the telemetry, electronics, DC pump motor and system battery. Mounted to the outside of the enclosure is the flowcell, peristaltic pump head, TNC antenna connector, sensor and power IO connectors.

The system battery can be supported by either a solar or mains charging system. The integrated peristaltic pump is low maintenance, self priming, will not clog and has a quick change tube design.



I/O Specification

RS232	1 Port Selectable Baud rate 300 - 9600
SDI-12	Up to 10 SDI-12 Instruments addressable 0-9
Analogues	1 input, selectable 4-20mA, 0-20mA
Digital	Up to 4 Multipurpose digital inputs configurable (State, event, count)
Relay Output	SPDT Relay output 60V / 1A switching capability

Communications

Modem	Quad Band GSM/GPRS/EDGE Class 10/12, Tri Band W-CDMA/HSDPA (3G)
Antenna	Internal or TNC Bulkhead external
GPS	TTFB <5s, open sky accuracy <2m

Physical Characteristics

Dimensions	650 x 380 x 330mm
Weight	8kg, 24kg including batteries
Operating Temperature	-5 to +60 Deg C
Housing	Co-Polymer Polypropylene
IP Rating	66

Power

Operating Voltage	12V DC
Operating current	>7mA idle
Charge	Solar Panel or Mains (110v / 220v AC)
Batteries	72Ah Deep discharge cyclical

Pump Characteristics

Flow Rate	Up to 2.6L / min
Head type	3 roller peristaltic
Control	Automatic Forward / Reverse operation with soft start
Suction lift	Self priming up to 8m



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