Data Logger MRL-7

Weatherproof data logger with integrated data transmission

Gathering, processing, saving and transmitting of measuring data - easy, practical and fast. The MRL-7 is a battery run data logger with splash-proof casing, USB data read-out function and integrated solar charge controller. The energy efficient operating mode as well as a splash proof casing qualifies the MRL-7 for data collection in remote areas off any infrastructure.

Features and advantages

- Weatherproof logger with integrated data transmission via 3G modem
- Reliable and energy efficient: optimized for the data collection in environmental monitoring off any infrastructure
- Logger can operate totally independent (with battery respectively solar module) - no switch case necessary
- Optimal integration and compatibility with complete SOMMER sensors as well as popular sensor technique
- Illuminated display for comfortable logger operation
- Parametrisation over RS232 and Bluetooth
- Easy data read-out and update over USB-stick or Bluetooth interf ace
- Minimal energy consumption; integrated solar charge controller
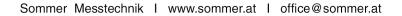- Robust, compact, weatherproof aluminium casing (powder coated)

Fields of application

Similar to the "smaller" MRL-6, the MRL-7 also can be used for all possible areas in environmental monitoring and measuring branch, where a low maintenance and energy efficient operation is of high importance as for example at measuring sites where no power network or switch cabinet is installed. Additionally with the MRL-7 a comfortable data transmission with an integrated 3G modem is possible. Therefore, easy all-in-one solutions (sensor, data gathering and transmission) can be realized. Furthermore, remote maintenance as well as wireless data read out and saving is possible.

Technical details

General

- **Dimensions** 180 x 150 x 90 mm (W x H x D)
- **Casing a**luminium, powder coated
- **Protection** IP 66
- **Energy supply b**attery (Gel battery, 12 V); external supply (5 ... 28 V); integrated solar charge controller for solar panel with 8 ... 28 V or external supply

- **Sensor supply** 5/12 V, max. 20/50 mA
- **Reference voltage** 2.5 V for potentiometer
- **Display** LCD Display with digital contrast setting, 2 x 16 characters; LED background illumination with splash-water safe cover and extended temperature range
- **Keypad** 5 keys-pad to read in the current measuring data, confirmation for observer
- **Number of channels** up to 80
- **Memory** failsafe flash memory; 4Megabyte internal (correlates approx. 1.200.000 records)
- **Operating temperature** -40 °C ... +60 °C
- **Functions** real-time value, intensity, minimum, maximum, sum, mean value etc.

Interfaces

- **Inputs** 4 x analogue 0 ... 2.5 V (thereof 1 x PT-100 4-conductor); 1 x counter, 1 x frequency input for wind speed and wind peak, 1 x poti input for wind direction
- **Digital sensor interfaces** 1 x RS 485, 1 x SDI-12 Interface (Vers. 1.3)
- **Interface** 1 x communication interface: RS 232, 9.6 to 115 kBd, 1 x USB Host (only for data read-out on USB), 1 x Bluetooth
- **Output (digital resp. analogue)** 4 x switch output

Data transmission

- **3G modem** integrated data transmission over MTS/GPRS, optional GPS for location recognition
- **Target server** up to three target servers (ftp, http) simultaneously
- **Further characteristics**
    - Independent transmission intervals possible
    - IP call activation for remote servicing (ongoing or temporary)
    - Time synchronisation over NTP (Network Time Protocol)