

DATA LOGGER



MB **LOGGER**
SERIES

MLogger Series

MLogger series designed under **MBPower** portfolio of Industrial Communication Solutions to offer dataloggers with the ability to acquire reliable measurements from multiple industrial devices such as PLCs, Weather Sensors, Inverters, Energy Meters, and other measuring devices over RS485 Modbus, ETH, Analog and Digital interfaces.

The device supports Modbus (Master/Slave), FTP and SNTP communication protocols. With in-built non-volatile memory of 32MB and expandable SD card memory up-to 32GB, MLogger series are ideal for datalogging applications. It has been designed to meet application requirements at the lowest cost operations. All variants offer in-built 3G/4G modem to transfer data to multiple cloud servers simultaneously.

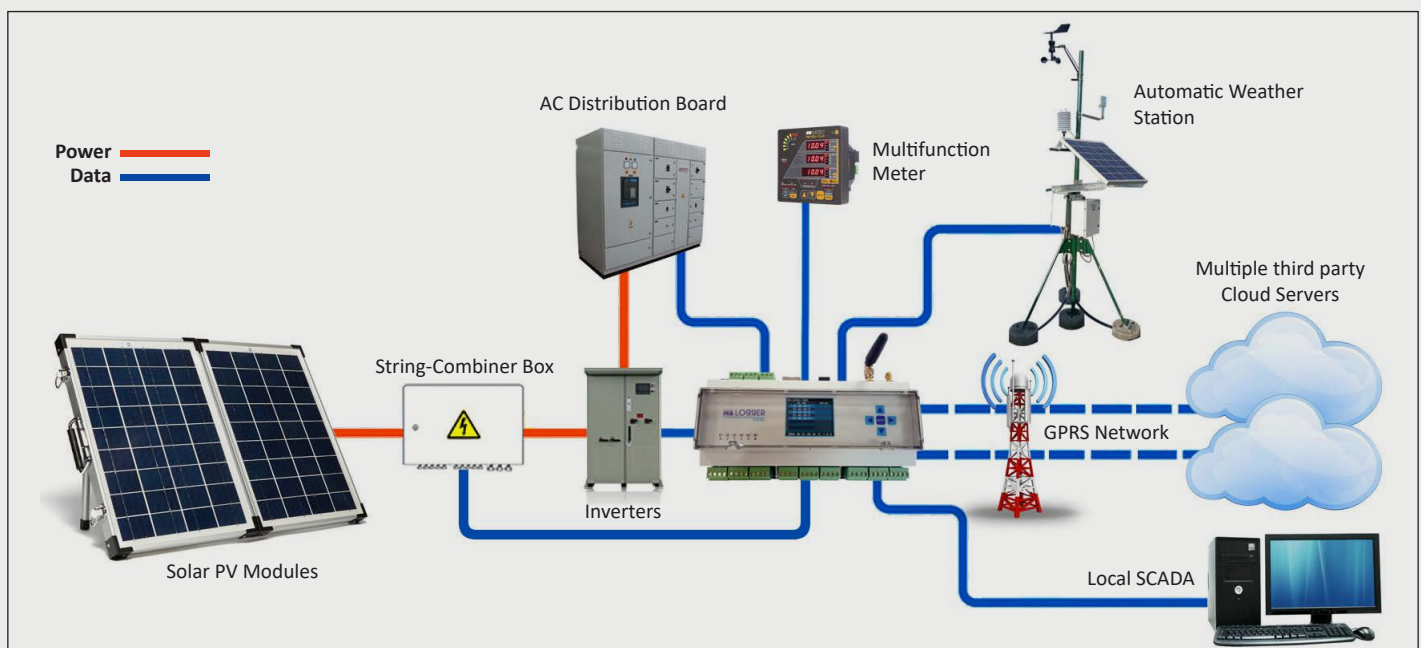
HIGHLIGHTS

- ▶ Compact DIN rail mounting
- ▶ OLED Display with keypads
- ▶ In-built Web UI server for configuration, diagnostic and parameter monitoring
- ▶ Client configurable devices for serial RS485, serial RS232, ETH and DI from any manufacturer
- ▶ Selectable Logging and Update Rates
- ▶ Data Transfer via FTP
- ▶ In-built library of popular make MFMs, Weather Sensors, Inverters etc., making configuration extremely simple and within few clicks
- ▶ Low Power Consumption
- ▶ Internal Lithium Battery for RTC and critical Data
- ▶ User selectable average time of 1 to 15 minutes, independently for each channel
- ▶ Data encryption at servers and multimedia side

APPLICATIONS

- | | | | |
|---|--|---|--|
|  Industrial Energy Monitoring |  Meteorology |  Renewable Plant Monitoring |  Asset and Condition Monitoring |
|  Automatic Water Level Monitoring |  Electrical Substation Monitoring |  Agriculture and Agricultural Research |  Manufacturing Monitoring |

BLOCK DIAGRAM OF A SOLAR PLANT DATA LOGGING SYSTEM





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Providing Electrical & Industrial
Automation solutions since 1983

TECHNICAL SPECIFICATIONS

GENERAL SPECIFICATIONS	
<i>Micro-Processor</i>	32 bits ARM Processor
<i>RTC</i>	Temperature compensated RTC

INPUTS	
<i>Analog Inputs</i>	13
	4-20mA (24 bits) 4
	mV (0-10,000mV – differential – 24 bits) 4
	mV (0-1,000mV – differential – 24 bits) 4
	Battery voltage (24VDC) 1
<i>Sampling rate</i>	10Hz
<i>Accuracy</i>	±0.1%
<i>Statistics</i>	Avg, Min, Max, Std Deviation, Integration etc.
<i>Digital Inputs</i>	4 (Optically Isolated)
<i>Max Input Frequency</i>	<1KHz
<i>Statistics</i>	Totalisation, Wind Speed calculation etc.

PORTS	
<i>Serial Ports</i>	1 RS-485 Port
	1 RS-485 and RS-232 Port (software configurable)
<i>Configurable Baud Rate</i>	9,600 and 19,200 bps
<i>Optical Isolation</i>	2.5KV RMS
<i>Protocols Supported</i>	MODBUS RTU Master or MODBUS RTU Slave, ASCII master
<i>Ethernet Port</i>	1
<i>Protocols Supported</i>	MODBUS TCP Master, MODBUS TCP Slave, Sntp Client and FTP
<i>Datalogger Configuration</i>	via in-built web server

COLOR OLED DISPLAY AND KEYS	
<i>Display Parameters</i>	IED, Sensors, Alarm Conditions, ETH Gateway status, File transfer status, Modem Signal Strength, Communication Status etc.
<i>Display</i>	Graphic Color 160 × 120 pixel resolution
<i>Keypad</i>	Four buttons capacitive keypad

DATA LOGGING	
<i>Datalogging Time Period</i>	Site Configurable
<i>Expandable Memory</i>	via SD card (FAT32) up to 32GB
<i>Data Transfer</i>	FTP via modem and ETH ports

INBUILT MODEM	
<i>Network</i>	Quad-Band 4G Modem with dual antenna
<i>Frequency Band</i>	TDD LTE : B40/B41
	GSM : 900/1800

ELECTRICAL	
<i>Voltage Input</i>	9-32VDC
<i>Power Consumption</i>	With Cellular Model : 10 Watt at 12VDC
	Without Cellular Model : 4 Watt at 12VDC

ENVIRONMENTAL	
<i>Operating Temperature</i>	-5°C to +60°C
<i>Storage Temperature</i>	-20°C to +80°C
<i>Humidity</i>	95% max – noncondensing

PHYSICAL	
<i>Protection</i>	IP42
<i>Dimensions (W × H × L)</i>	90 × 62 × 162 mm
<i>Mounting</i>	DIN Rail
<i>Weight</i>	500g (Approx.)
<i>Housing Material</i>	Polycarbonate

ADD ON MODULE	
<i>Model</i>	MBLOGGER1000-12P
<i>Pulse Counter Inputs</i>	12 (Optically Isolated)
<i>Sensor Power Supply Output</i>	12VDC/150mA

VARIANTS

Sl. No.	Features	900 Lite	900 Adv	1000 Lite	1000 Adv	1000 Pro
1	Serial Port -1 RS-485 (MODBUS RTU Master, MODBUS RTU Slave)	✓	✓	✓	✓	✓
2	Serial Port-2 RS-485 and RS232 (Can be used as RS485 or RS232) (MODBUS RTU Master, MODBUS RTU Slave, ASCII Master)	×	×	×	✓	✓
3	ETH Port (MODBUS TCP Master, MODBUS TCP Slave, Web Server)	✓	✓	✓	✓	✓
4	Cellular Modem	×	✓	×	✓	✓
5	OLED Display	×	×	×	✓	✓
6	MMC SD Card (32GB)	✓	✓	✓	✓	✓
7	Maximum number of IED's per port	5	5	5	5	5
8	Maximum number of MODBUS TCP Slave clients	2	2	2	4	4
9	SNTP Client	1	1	1	1	1
10	File Transfer Clients	1	1	2	2	2
11	RTC (battery back up)	✓	✓	✓	✓	✓
12	Number of Digital Inputs (optically isolated)	2	2	4	4	4
13	Number of mA inputs (4-20mA) (24 bits)	×	4	4	4	4
14	Number of mV inputs (0-1,000mV) (24 bits)	×	×	4	4	4
15	Number of mV inputs (0-10,000mV) (24 bits)	×	×	×	×	4
16	Battery Voltage Input	×	×	×	1	1
17	Add on Expansion Modules	×	×	×	✓	✓

**Specifications are subject to change without notice.

