



Product ID: Mex03L

Category: Datalogger LoRaWAN

Ultra-low power data logger for remote monitoring using LoRaWAN communication technology.

TECHNICAL SPECIFICATIONS

CPU	Microcontroller 16bits@8MHz with 256KB Flash, 16KB RAM
Memory	Dataflash 4MB for storage of data EEPROM 32KB for storing configuration
Real time clock	Real time clock integrated with backup super battery
ADC	ADC converter of 16 bits multiplexed to the 2 analog inputs
Watchdog timer (WDT)	Internal Watchdog available
Device configuration	Local configuration via USB cable and desktop application.
Firmware update	Local via USB cable by authorized technical service.
Time between measurements	Configurable from 120 to 86400 seconds

I/O AND COMMUNICATIONS PORTS

I/O	Two configurable analog or digital inputs (10Hz) that are potential-free. The analog inputs can be for voltage or current in the following ranges: 0-1.25V, 0-2.5V, 0-5V, 0-10V and 4-20mA. An SDI-12 communications port that can manage up to two SDI-12 probes. The maximum number of parameters that can be read is 36 (depending on the sending format).
Communications ports	LoRaWAN RN2483 module
Protection of the I/O	The inputs are protected against incorrect wiring with the following restrictions: Max. voltage in the digital inputs 20 Vcc

SUPPLY CIRCUIT

Supply voltage	3.7V/3.2A, rechargeable lithium battery 18650 provided
PV Charger	Charger circuit by an integrated 6V solar pannel integrated in the outside of the box
Consumption	90uA standby, 60mA transmission
Autonomy	More than 30 days (without recharging)* *Depends on the connected sensors and sampling frequency. In the testing phase with a sampling rate of 120 sec and an SDI-12 sensor with 3 parameters, the duration was more than 41 days.

ENVIRONMENTAL CONDITIONS

Working temperature	0° ~ 60°C* *Limited by the operating range of the Li-Ion 3.7V battery.
Humidity	5% ~ 95% (without condensation)

CONSTRUCTION FEATURES

Dimensions	162x82x55mm (W/H/D)
Material Box	Polycarbonate
Type of mounting	Superficial installation IP67
Degree of protection	355g without battery 417g with battery

INFORMATION ABOUT ORDERS

Minimum order	1
Order reference	Mex03L

CERTIFICATES AND DECLARATIONS

Rules	EN 61000-6-2:2019 EN 61000-6-3:2007 + A1:2011 RF estándar ETSI EN 300 220, EN 54-25
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This product is compatible with the RoHS (2011/65/UE)