MEX03

Datalogger Controller of extremely low consumption for monitorization and remote control through GPRS/NB-IoT communications.

TECHNICAL SPECIFICATIONS

CPU	Microcontroller 16bits@8MHz with 256KB Flash, 16KB RAM
Memoria	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	Base configuration at config.odins.es and by MQTT commands once the communication to the server has been established
Firmware update	FOTA by authorized technical services
Communication protocols	MQTT
Time between measurements	Configurable from 120 to 86400 seconds

I/O AND COMMUNICATIONS PORTS

I/O	2 potential free analog or digital inputs (10Hz), configurable via MQTT commands 1 output for latch type solenoids (0-15V) 1 SDI-12 communications port SDI-12 (for managing up to 2 SDI-12 probes). The analog inputs can be by voltage of current, in the following ranges: 0-1.25V, 0-2.5V, 0-5V, 0-10V and 4-20mA The supply of the analog inputs and the SDI-12 port is adjustable from 4.2V to 15V with a maximum output current of 120mA
Communications ports	GPRS/NB-IoT Network
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	When waiting 10uA, when transmitting 650 mA with NB-IoT and 2A with GSM/GPRS

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Autonomy	The estimated autonomous use of the device is of 349 hours of functioning

ENVIRONMENTAL CONDITIONS

Working temperature	−25º ~ 85ºC
Humidity	5% ~ 95% (without condensation)
Degree of protection	IP67

INFORMATION ABOUT ORDERS

Minimum order	1
Order reference	Mex03

CONSTRUCTION FEATURES

Dimensions	120x80x55mm (W/H/D)
Box material	Plastic
Installation type	Superficial installation

CERTIFICATES AND DECLARATIONS

Rules	EN 61000-6-2:2005 EN 61000-6-3:2007 + A1:2011 RF standard ETSI EN 300 220, EN 54-25
RoHS compliant	This product is compatible with the RoHS (2011/65/UE)

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