



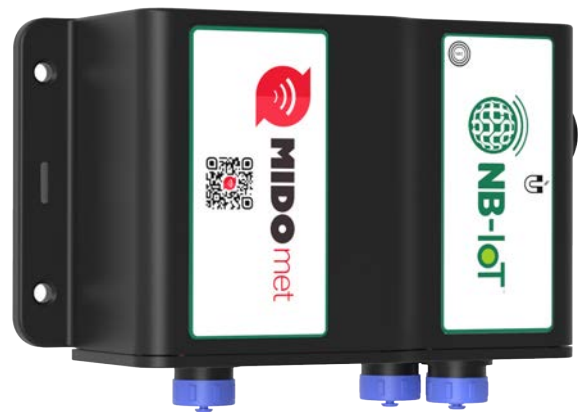
MIDOmet
smart metering

MiDoMet NBloT Pressure V2

*Smart metering via NB-IoT network
easy and reliable*



MiDoMet NBloT Pressure V2



MiDoMet Pressure V2 is the evolved datalogger specialized for monitoring:

- pressure,
- flow,
- other **analog or digital sensors**
- with **integrated and replaceable battery pack**.

Through its digital inputs it can be used to remotely read **impulse meters**, for billing purposes or to monitor the water network. The analog input can be used to collect data from **4-20mA or 0-5V sensor**, like temp probe, pressure probe, level probe etc.

It is equipped with an NB-IoT modem for remote data transfer through open **MQTT** protocols. MiDoMet NBloT is a robust and reliable device and thanks to the **IP68** protection degree it can therefore be installed in any environment. The data stored by the Midomet Nibot Special are remotely transferred via NB-IoT network and using the MQTTS open protocol, this allows the integration of data in any third-party management system.

FEATURES

- 2 digital inputs for meters or sensors
- 1 analog input 4-20mA or 0-5V2
- 4G NBloT connectivity
- Resistant to hostile environments with IP68 protection
- Self-powered (more than 10 years of autonomy and replaceable battery)

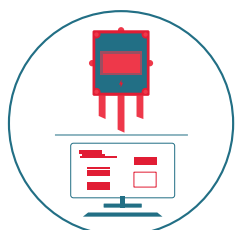
The device is equipped with the battery sector separate and isolated from that of electronics to allow the easy replacement and at the same time to guarantee the IP68 protection, thanks to which it is possible to install it in hostile environments or even in immersion.

The device has IP68 protection, thanks to a dielectric epoxy resin filling. In this way it is possible to install it in hostile environments or even in immersion.

The device can be supplied with the external SIM slot (IP68) to allow the replace of the SIM and with the Plug & Bfree contract option, it can be completed with the SIM and connectivity for the duration of the service avoiding subscribing contracts with telephone operators.

REMOTE METER READING

for billing purposes or network monitoring



IP68 GRADE PROTECTION

Can be installed even in hostile environment



COLLECT DATA FROM SENSORS

Interface 4-20 mA, 0-5V or Serial RS485 ModBus



OPEN PROTOCOLS

MQTT
MQTTS

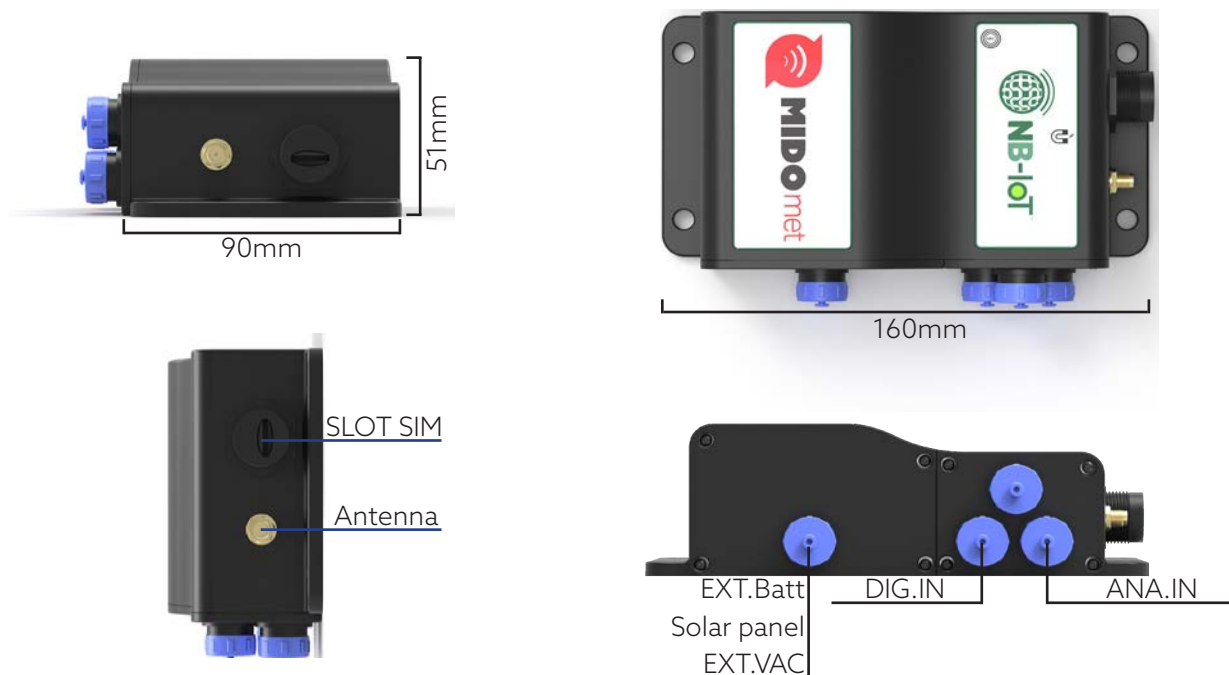


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DIMENSIONS



FUNCTIONALITY

Guaranteed performances in terms of number and frequency of transmissions

The reading sampling takes place by default every 60 minutes, and every day the 24 readings are sent. This configuration guarantees a battery life that is up to 10 years.

Furthermore, thanks to the bidirectionality of the communication, sampling frequency and data sending frequency can be changed remotely, for example to start sampling campaigns at a higher frequency up to a sample every 5 minutes to analyse one or more defined points.

Data and alarms

The MIDO in each communication message reports, in the header of the message, all the info necessary for the message reconstruction of information relating to digital entrances: **num. impulses, unit of measurement, multiplies and analogue: unit of measurement (bar, mt, but, V, etc.).**

It is possible to configure the asynchronous communication of the alarm on the **overflow of the minimum and maximum thresholds** of the analog probes and on the variation of the state/alarm on the entrance of the state.

Intelligent algorithms and alarms reporting

The Midomet Nibot Pressure V2 calculates independently (intelligent algorithms of edge computing)

- Calculation of the maximum, minimum and media scope registered,
- Calculation of the Night Back flow.

In addition, it is able to detect and communicate independently the alarms of: fraud, reverse flow, loss, overflow,

absence of consumption, battery below 10%.



NFC apps and Infaccia

It is possible to access locally to the device via the **NFC and Android app (.apk apps provided for free)** supplied with your smartphone to view information relating to the readings of the inputs such as

- Digital and analog inputs configuration,
- Configuration of sampling frequencies, (1min, 5min, 10min, 15min, etc.),
- Configuration of the data sending frequency
- Configuration of the alarm thresholds of maximum and minimum, which will trigger the alarm in the event of exceeding values
- configuration of the address of the MQTT broker for indicating the server for sending data,
- Nbiot signal test execution.
- SIM configuration: apn, user/password (if present)

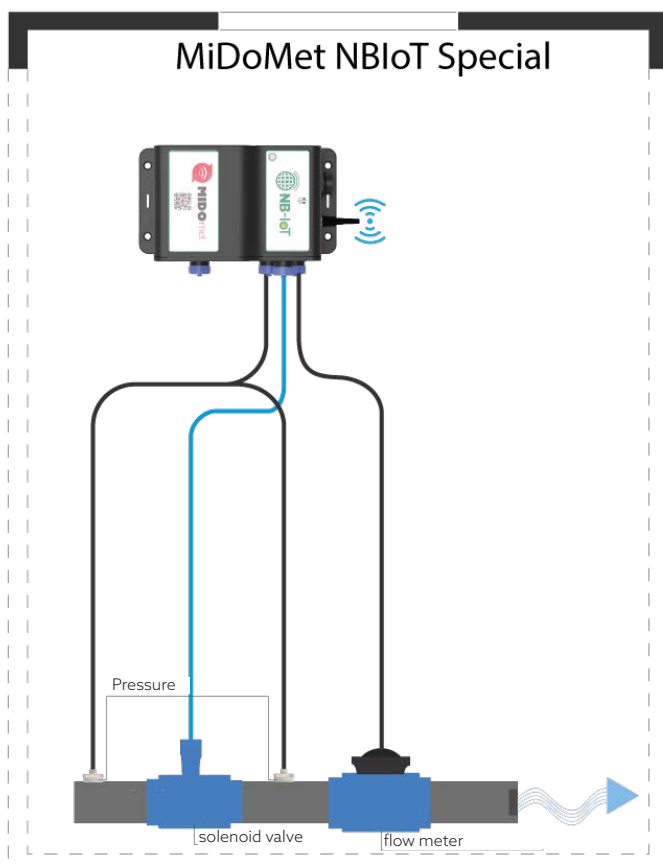
Interaction with magnetic button and LED

The device is equipped with a magnetic button, which can be activated through a simple magnet, and thanks to the presence of a LED on the membrane it is possible to interact with the device to make timely checks, such as: the verification of the narrow band coverage in the position of the Installation, and the verification of the success of the connection with the remote server.

Remote configuration

In Midomet Nibot communication is bidirectional and allows the device to receive commands and/or to configure the parameters remotely:

- configuration of analog and digital entrances,
- configuration of the alarm thresholds of the connected sensors,
- Configuration of communication parameters (SIM, operator, frequency band) and the remote server,
- Configuration sampling and data transmission parameters,
- Possible alignment/realignment of the counting value with the mechanical counter.



Communication and interoperability protocol with third party data management systems

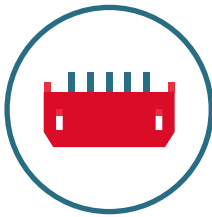
MiDoMet NBIoT is an open and interoperable device, the data can be easily integrated into the third parties or pre-existing information systems, thanks to the standard protocol used: MQTT (or MQTTS).

MiDoMet Soft & Cloud

Alternatively, the system can be provided complete with Cloud Midomet Soft software. Midomet Soft is the Software born for the analysis and management of data relating to smart metering systems, which allows operators a constant analysis of data, a simple supervisory of the network, in addition to the possibility to be promptly alerted in the event of alarm of exceeding the thresholds.

Compliant with standards:

- Rosh2 Directive 2011/65/EU
- Red 2014/53/EU: radio devices;
- EMC Directive 2014/30/EC: electromagnetic compatibility;
- Directive 2014/35/EC: low voltage;
- Degree of protection: CEI EN 60529;
- Regulation (EC) n. 1907/2006 Reach.



INPUTS

Digital inputs	2 IN digital
Analogue inputs	1 IN analog 4-20mA or 0-5V



ANALISYS

CPU	Arm® Cortex-M4 32-bit
STORAGE	256KBit



POWER SUPPLY

Battery	Internal (9000 mAh replaceable battery pack) + HPC1520 (Internal backup battery pulse capacitor)
220VAC Power supply (optional)	220VAC (AC/DC internal transformer with IP68 cable for connection supplied)
Solar panel (optional)	4W panel, dimensions 170x115x25mm, including charge controller and 6-cell ER18650 battery pack. Total capacity 18000mAh



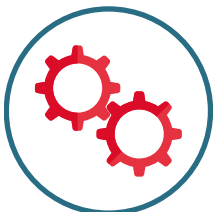
COMMUNICATION

Data transmission	Modem SIMCOM NBloT
Transmission protocol	MQTT / MQTTS
Antenna	Internal antenna or external (optional) quadriband with SMA attack



INTERFACE

External access	NFC e APP
Interaction	magnetic key
Indicator	Led



MECHANICAL FEATURES

INSTALLING	tassels Ø 6
Working temperature	-20/55 C °
Protection	IP68 (medium viscosity, shrinkage-free, dielectric epoxy resin filling)

INCLUDED ACCESSORIES

MD.CAB.LIYY.4P



Cable for digital input (output) wiring
50cm Unitronic® LiYY 26AWG + IP68 4 pin gold-plated brass connector + sealing cap

MD.CAB.LIFY.4P



50cm Unitronic® LifYY 26AWG analogue input wiring cable complete with IP68 4-pin gold-plated brass connector and sealing cap

OPTIONAL ACCESSORIES

MD.ANT.EXT.2DB



External antenna with IP68 protection

MD.PRO.COAX.1M



Coaxial extension cable SMA (male) to SMA (female) RG174 length 1m

MD.JBOX.M686



IP68 compensation chamber for relative pressure or level sensor complete with breathing valve

MD.CON.12



IP68 splitter connector (1 input wire and 2 output wires) for digital inputs for wiring pulse emitters or digital outputs.

MD.BATT.36V



Additional external 38 Ah battery pack.

MD.SIM.HD



External SIM HOLDER for Nano SIM IP68 and sealing cap

CONFIGURATION OPTIONS

VERSION	Digital Inputs	Analog Inputs	Antenna*	POWER SUPPLY		
				Battery	220V Power Supply	Solar Panel
MD.NB.2.15B.3	2	1	Internal	Internal 9000mAh + HPC1520		
MD.NB.2.15B.3.VA	2	1	Internal	HPC1520**	MD.ALI.1.2.36	
MD.NB.2.15B.3.PS	2	1	Internal	HPC1520**		MD.PS.4W

*External antenna option available

**Internal backup battery pulse capacitor

