



# MIDOmet

smart metering

## MiDoMet NBloT PulseONE

*Smart metering via rete NB-IoT  
semplice ed affidabile*





MiDoMet NBloT PulseONE is the specialized NBloT datalogger for **monitoring digital inputs**. MiDoMeT NB-loT is a self-powered universal device with extensive functionality. Through the digital inputs it can be used to remotely read **impulse meters**, for billing purposes or to monitor the water network. It is equipped with an NB-loT 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 device can be supplied complete with **SIM and data traffic for 10 years**.

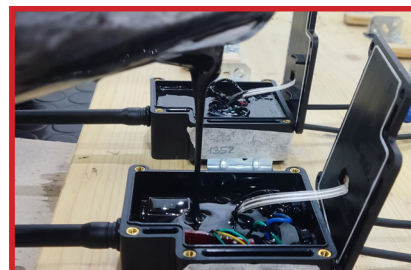
## FEATURES

- 1 input for meters with impulse emitters (up to 4 signals: pulses, direction, fraud, forward pulses)
- 4G NBloT connectivity
- Resistant to hostile environments with IP68 protection
- Self-powered (more than 10 years of autonomy and replaceable battery)

The device has IP68 protection, thanks to its medium viscosity, shrinkage-free, dielectric epoxy resin filling. In this way it is possible to install it in hostile environments or even in immersion.

With MiDoMet NBloT it is possible to create an **NBloT fixed network remote reading system**, to remotely read data from digital sensors, overcoming the limits of a concentrator network, and reaching the most remote users, thanks to the use of the 4G NBloT communication network.

The device is supplied **complete with SIM and connectivity** for the entire duration of the service (\* Plug & BeFree contract) avoiding to sign agreements with NB-loT suppliers.



## 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.

### Storage capacity of the acquired data on the devices

MiDoMet is equipped with an internal backup memory capable of storing data without events communication that allow you to empty memory:

- Up to 7100 reading samples

### Data

The MiDo in each communication message reports in the header of the message all the info needed for the reconstruction of the consumption profile: n. impulses, unit of measurement, multiply.

### Smart algorithms

The device calculates on board the maximum and minimum flow rate of the period between two communications (edge computing).

### Device programming and maintenance

It is possible to access the device locally via the **NFC interface and App** with your smartphone, to view data from the readings of inputs such as: total liters / cubic meters, pressure detected, voltage / internal battery status, etc. Through the maintenance menu it is possible to carry out various operations:

- configuring digital inputs,
- configuring communication parameters (SIM, operator, frequency band) and the remote server,
- communicating with servers for sending data,
- alignment/realignment of the counting value with the mechanical counter,
- performing NBloT signal tests.

The presence of a led on the membrane allows you to check the status and success of all operations.

In addition, there is a magnetic button, with which it is possible to make instant checks on the device status.

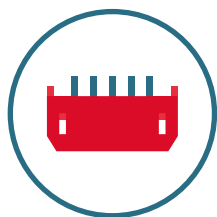
### Communication and interoperability protocol with third party data management systems

Midomet NBloT 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

Or, the system can be supplied 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 and a simple and immediate supervision of the network.





## INPUTS

	MD.NB.1.14.1
Inputs	1 input for meters with impulse emitters (up to 4 signals: pulses, direction, fraud, forward pulses)
Retrofitting	Can be integrated into meters/sensors already installed



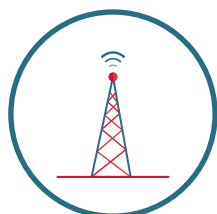
## ANALISYS

CPU	Arm® Cortex-M4 32-bit
STORAGE	DataFlash 4MByte + 64KBit Backup



## POWER

BATTERY	Li-SOCL2 3.6V 9000mAh + HPC1520
---------	---------------------------------



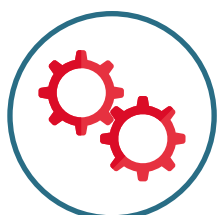
## COMMUNICATION

NB IoT Modem	SIM7020E NB IoT
Supported Protocol	MQTT/MQTTS
Antenna	Internal antenna Or External one (optional)



## INTERFACES

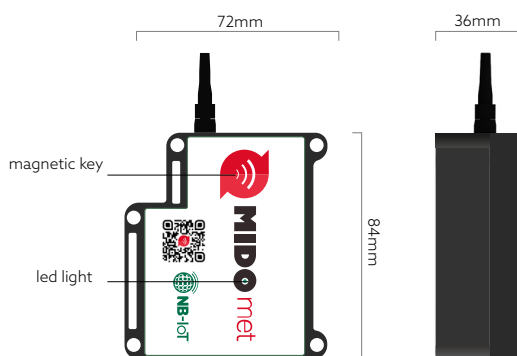
External access	NFC e APP
Interaction	Magnetic Key
Visual signal	Led Light



## MECHANICAL CHARACTERISTICS

Assembly	dowels Ø 6
Temperature cond.	Working temperatures:-20/55 C °
Protection Level	IP68 (medium viscosity, shrinkage-free, dielectric epoxy resin filling)

## DIMENSIONS



## OPTIONAL ACCESSORIES

### MD.CON.11



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

### MD.ANT.EXT.2DB



External antenna with IP68 protection

### MD.PRO.COAX.1M



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

## CONFIGURATION

VERSION	Digital Input	Antenna*	Battery
MD.NB.1.14.1	1 (5 wires)	Internal	Internal 9000mAh + HPC1520**

\*External antenna option available

\*\*Internal backup battery pulse capacitor