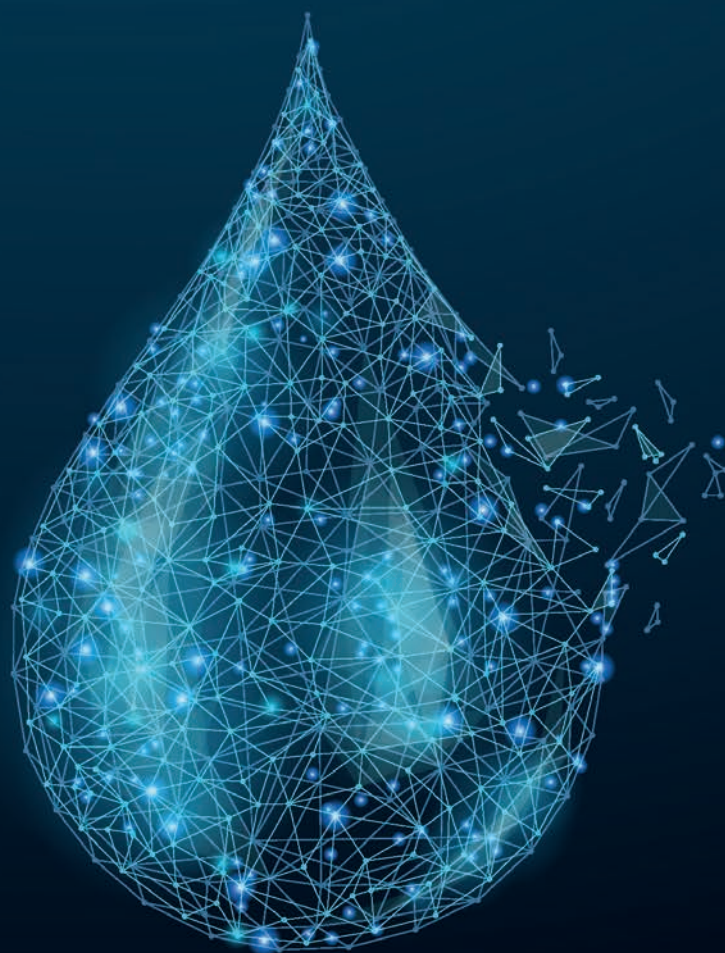




MIDOmet
smart metering



SMART WATER

CATALOGUE 2024



MIDO, THE IDEAL CHOICE FOR REMOTE READING AND COMSUMPTION MONITORING

Vision

Innovative solutions for a more sustainable world.

Mission

MiDo develops Smart Metering systems and cloud computing services for energy management and energy monitoring.

MiDo develops **Internet of Things** systems, by producing Smart Metering products: electronic device and energy management cloud computing service, for monitoring resources as water, gas, heat.

Our clients are utility companies, large users industries or apartment buildings.

MiDo products allow you to:

- keep the physical and administrative losses that represent costs and lost profits;
- respond to the growing need to equip itself with remote management systems for the supply and monitoring of consumption.

MiDo meets these needs through an **innovative** range of devices. MiDo's devices are **open and interoperable** with any third-party or pre-existing system, self-powered and easy to use. The MiDo system is completed with customized **data management platforms** based on customer needs.

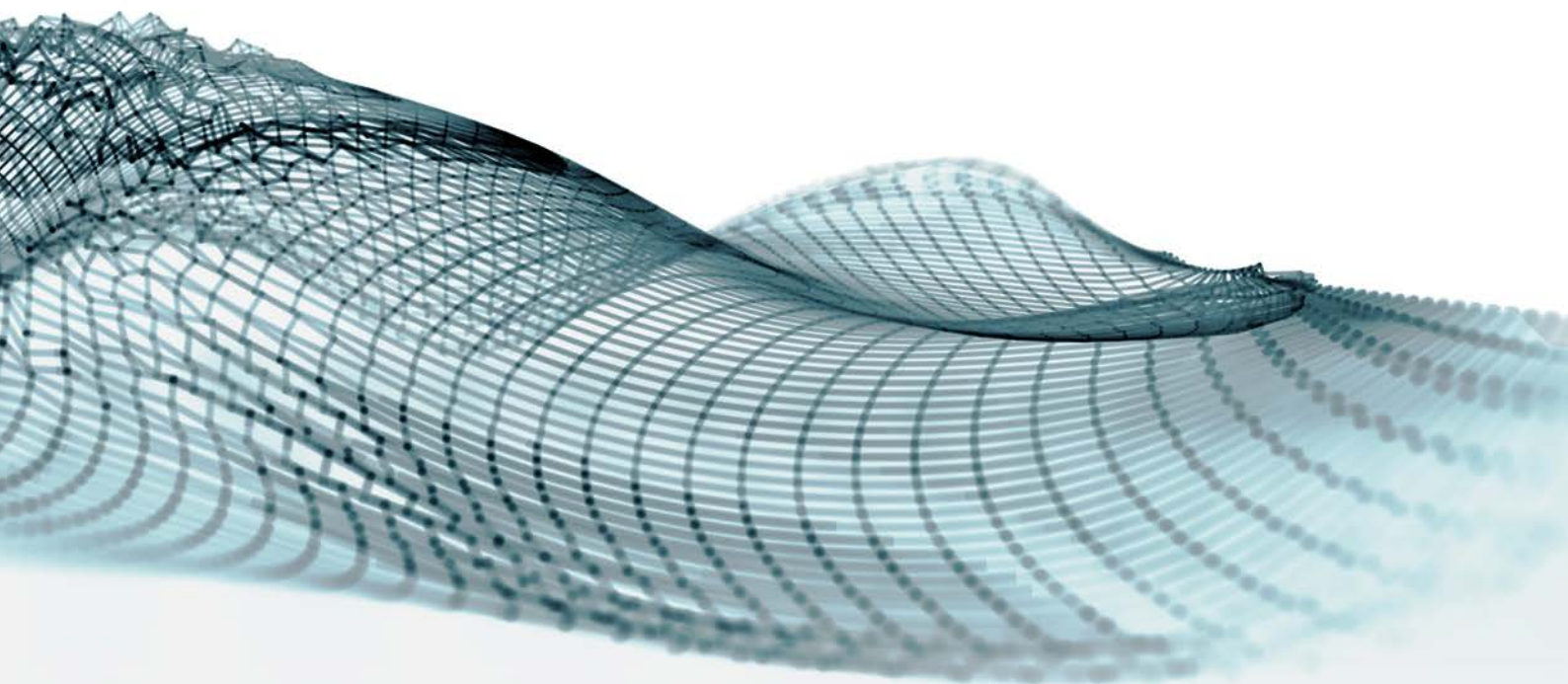
THE FUTURE NETWORK IS NB-IoT, LONG RANGE INTERNET OF THINGS



MiDoMet NBloT is the innovative range of MiDo datalogger designed to develop **Internet of Things** networks.

Universal devices for data collection with **broad functionality**, equipped with NBloT modem for remote data transfer by open protocol MQTT.

Narrowband Internet of Things (NB-IoT) is an **LPWAN** radio technology standard developed by 3GPP to enable communication for a wide range of cellular devices and services.



MiDoMet NB-IoT PulseONE



The **MiDoMet NB-IoT PulseONE** is the NB-IoT datalogger specialized in monitoring meters equipped with pulse emitters.

NB-IoT is the long-range, low-power (LPWAN) network that enables the economic and simple development of **Internet of Things** applications.

TECHNICAL FEATURES

Inputs	1 IN digital (5 cables)
Power	Battery Li-SOCL2 3,6V+Pulse capacitor (up to 10 years autonomy and replaceable battery)
Connectivity	4G NB-IoT
Protection	IP 68 (suitable for harsh environment)
Dimensions	84mm x 77mm x 33mm

WHO IS IT FOR?

MiDoMet NB-IoT Pulse is a self-powered universal device with broad functionality. It can be used for remote reading of meters equipped with pulse emitters for billing purpose.

USE CASES



MiDoMet NB-IoT Pulse



The **MiDoMet NB-IoT Pulse** is the NB-IoT datalogger specialized in digital inputs monitoring.

NB-IoT is the long-range, low-power (LPWAN) network that enables the economic and simple development of **Internet of Things** applications.

TECHNICAL FEATURES

Inputs	Up to 4 IN digital
Power	Battery Li-SOCL2 3,6V +Pulse capacitor optional: 220 VAC or solar panel
Connectivity	4G NB-IoT
Protection	IP 68 (suitable for harsh environment)
Dimensions	84mm x 77mm x 33mm

WHO IS IT FOR?

MiDoMet NB-IoT Pulse is a self-powered universal device with broad functionality. It can be used for remote reading of meters equipped with pulse emitters, for billing purpose or for water network control.

USE CASES



MiDoMet NB-IoT Pressure



The **MiDoMet NB-IoT Pressure** is the NB-IoT datalogger specialized in system pressure (or level) monitoring.

NB-IoT is the long-range, low-power (LPWAN) network that enables the economic and simple development of **Internet of Things** applications.

TECHNICAL FEATURES

Inputs	2 IN digital one of which is ON/OFF + 1 IN analog 4-20mA or 0-5V
Power	Battery Li-SOCL2 3,6V +Pulse capacitor optional: 220 VAC or solar panel
Connectivity	4G NB-IoT
Protection	IP 68 (suitable for harsh environment)
Dimensions	84mm x 77mm x 33mm

WHO IS IT FOR?

MiDoMet NB-IoT Pressure can be used for remote reading of meters equipped with pulse emitters, for billing purpose or for water network control. The analog input can collect data from 4-20mA, 0-5V sensors, such as temperature, pressure, level or quality analog sensors.

USE CASES



MiDoMet NB-IoT Pressure V2



MiDoMet NB-IoT Pressure V2 is the evolution of the MiDoMet NB-IoT Pressure with integrated and replaceable battery pack.

An NB-IoT datalogger specialized in system pressure (or level) monitoring.

TECHNICAL FEATURES

Inputs	2 IN digital one of which is ON/OFF + 1 IN analog 4-20mA or 0-5V
Power	Battery Li-SOCL2 3,6V +Pulse capacitor optional: 220 VAC or solar panel
Connectivity	4G NB-IoT
Protection	IP 68 (suitable for harsh environment)
Dimensions	84mm x 77mm x 33mm

WHO IS IT FOR?

MiDoMet NB-IoT Pressure can be used for remote reading of meters equipped with pulse emitters, for billing purpose or for water network control. The analog input can collect data from 4-20mA, 0-5V sensors, such as temperature, pressure, level or quality analog sensors.

MiDoMet NB-IoT Special



MiDoMet NBloT Special is the RTU/Datalogger specialized in pressure, flow, digital or analog sensor monitoring. It can be supplied with digital or analog outputs.

TECHNICAL FEATURES

Inputs	4 IN digital one of which is ON/OFF + 2 IN analog 4-20mA or 0-5V
Power	Battery Li-SOCL2 3,6V +Pulse capacitor optional: 220 VAC or solar panel
Connectivity	4G NB-IoT
Protection	IP 68 (suitable for harsh environment)
Dimensions	90mm x 160mm x 51mm

WHO IS IT FOR?

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

The device is equipped with a battery compartment separate and isolated from the electronics compartment, to allow for easy replacement and at the same time to guarantee IP68 protection. In this way it is possible to install it in hostile environments or even underwater. The data stored by the MiDoMet NBloT Special is transferred remotely via the NB-IoT network and using the open MQTT or MQTTS protocol, this allows the integration of the data into any third-party management system.

MiDoMet NB-IoT Special S



MiDoMet NB-IoT Special S is the RTU/ Datalogger specialized in pressure, flow, digital or analog sensor monitoring.

It can be supplied with digital or analog outputs.

Interaction with **RS485/ModBus** serial port equipment is possible.

TECHNICAL FEATURES

Inputs	4 IN digital one of which is ON/OFF + 2 IN analog 4-20mA or 0-5V + Mod. Seriale RS485/ModBus (optional)
Outputs	Up to 2 digital output 0-5V o 0-12V or 1 analog output 0-5V powered by 12V (optional)
Power	Battery Li-SOCL2 3,6V +Pulse capacitor optional: 220 VAC or solar panel
Connectivity	4G NB-IoT
Protection	IP 68 (suitable for harsh environment)
Dimensions	90mm x 160mm x 51mm

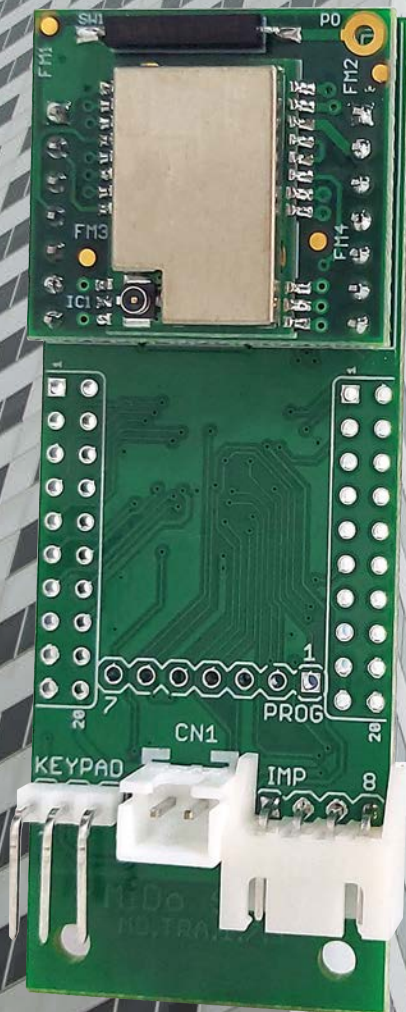
WHO IS IT FOR?


Thanks to the analogue and digital inputs available, it is able to connect to pressure switches installed on the network, to flow meters or generally to sensors equipped with 4-20mA/0-20mA output. The data logger can be equipped with an RS485 serial port (ModBus).

It can also be supplied with digital or analogue outputs that allow interaction with external peripherals, for example with the aim of managing hydro-valves.

The data stored by the MiDoMet NB-IoT Special is transferred remotely via the NB-IoT network, using the open MQTT or MQTTS protocol, this allows integration of the data into any third-party management system.

THE FUTURE NETWORK IS LORA, LONG RANGE INTERNET OF THINGS





Become the protagonist of the LoRaWAN network with MiDo!

Our **MiDoMet LoRa Pulse** and **MiDoMet LoRa Analog** are ready-to-use devices, based on LoRaWAN technology.

A LoRaWAN network is **low cost** to make, it is open and **interoperable**. That means any LoRaWAN sensor or device can be connected to the same network.

Once installed, it does not require subscription fees as it happens with proprietary low-power networks, or devices equipped with 2G, 3G or LTE modems.

You can finally remote-read and monitor network nodes in urban areas with the application of the **Internet of Things (IoT)**.

MiDoMet LoRa Pulse



The **MiDoMet LoRa Pulse** is an innovative radio module for remote reading water, gas, or energy meters.

Interoperable with any **LoRaWAN** network, the long-range, low-power (LPWAN) network that enables the economic and simple development of **Internet of Things** applications.

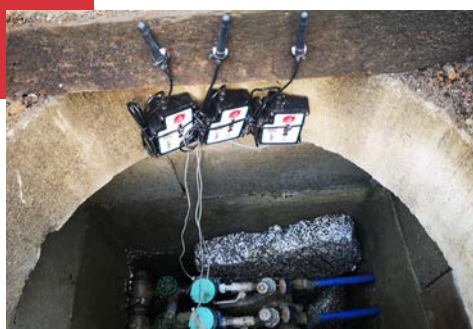
TECHNICAL FEATURES

Inputs	2 IN digital (relay, reed, hall effect)
Connectivity	radio 868 Mhz (up to 10.000mt distance)
Power	Battery Li-SOCL2 3,6V (up tp 10 years autonomy)
Dimensions	84 mm x 72 mm x 33 mm
Protection	IP 68 (suitable for harsh environment)

WHO IS IT FOR?

MiDoMet Lora Pulse can be connected up to two meters pulse emitters or any other sensor with digital output, for billing purpose or for water network control. LoRa technology allows low frequency data transmission between sensors up to 15km.

USE CASES



MiDoMet LoRa Analog



The **MiDoMet LoRa Analog** is the extended version of the MiDoMet LoRa Pulse that in addition to the remote reading of meters or digital inputs provides an analog input for monitoring sensors such as pressure, level, quality.

TECHNICAL FEATURES

Inputs	1 IN analog 0-20mA, 0-5V, 0-10V + 1 IN digital
Connectivity	radio 868 Mhz (up to 10.000mt distance)
Power	Battery Li-SOCL2 3,6V (up to 10 years autonomy)
Dimensions	84 mm x 72 mm x 33 mm
Protection	IP 68 (suitable for harsh environment)

WHO IS IT FOR?

MiDoMet Lora Analog in addition to being connected to a meter pulse emitter or to any other sensor with digital output, it can be connected to pressure, level or analog sensors.

USE CASES



LORAWAN GATEWAYS



RAK[®]
IoT Made Easy

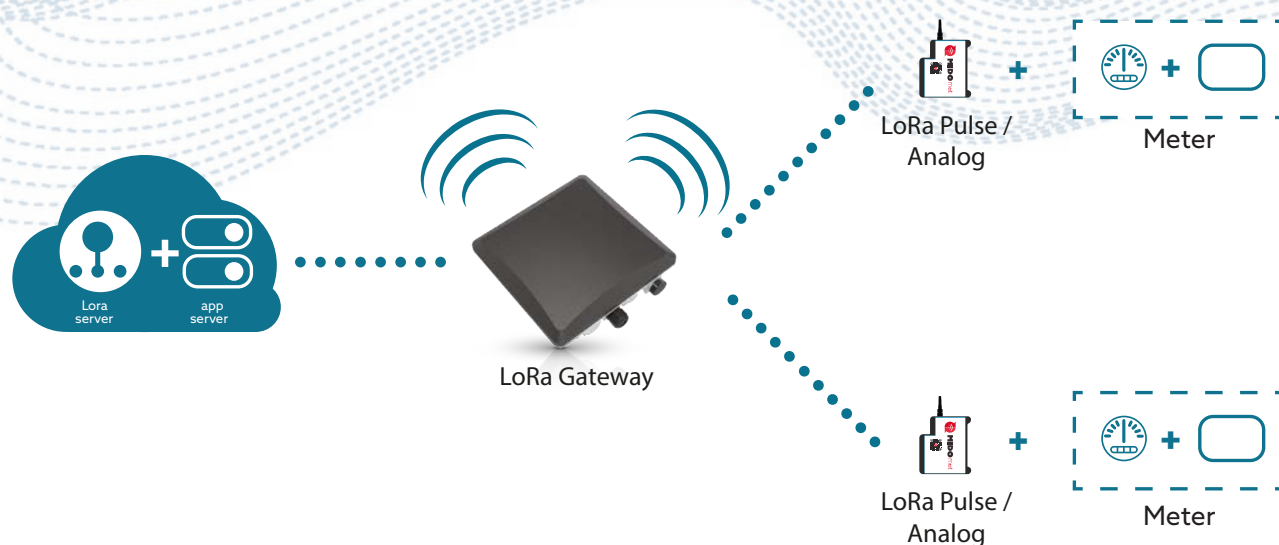
RAKwireless
Technology Co., Ltd.

LoRaWAN network devices designed for indoor and outdoor applications.

Customizable with back-haul connectivity options, power supply and different types of antennas.

These devices provide everything needed to reliably implement LoRaWAN® networks.

Network devices based on hardware **RAKwireless Technology Co. Ltd**, our partner in the development of Internet of Things solutions.



MiDoMet LoRaWAN Edge Gateway



The **MiDoMet LoRaWAN Edge Gateway** is an industrial gateway, sturdy and reliable, with IP67 grade protection and based on RAK7249 hardware.

MiDoMeT LoRaWAN Edge Gateway is ideal for commercial implementation of the **Internet Of Things**. Provided with all the accessory: GPS antenna, LTE antenna, WIFI antenna, PoE injector and mounting kit.

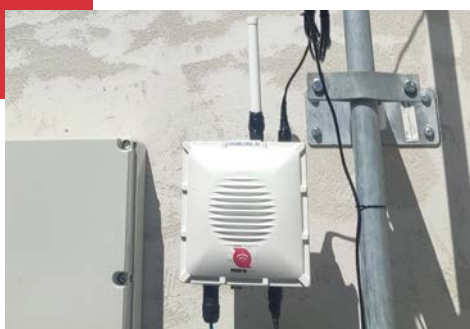
TECHNICAL FEATURES

CPU:RAK634 Module(MT7628 inside) RAM:128MB DDR2 Flash:16MB
WIFI: 2x2 MIMO 802.11b/g/n- LoRaWAN™ Stack Inside
LoRa concentrator, cell phone, GPS and Wifi
It supports Power of Ethernet (PoE) IEEE 802.3af/at - Complies with Class 4, 48V
Industrial grade IP67 / NEMA-6 enclosure with cable glands
The backup battery sustains operation for approximately 10 hours

WHO IS IT FOR?

This device is ideal for implementing a large and professional LoRaWAN IoT infrastructure. It has a range of over 15 km as the crow flies and over 2 km in dense urban environments.

USE CASES



MiDoMet LoRaWAN Prime Gateway



The **MiDoMet LoRaWAN Prime Gateway** is an 8 channel complete gateway, with Ethernet and LTE connectivity integrated. It supports the MQTT Bridge mode, with the option for TLS authentication.

TECHNICAL FEATURES

WIFI: 2.400-2.4835GHz(802.11b/g/n) - LoRaWAN™ Stack Inside
LoRa concentrator, cell phone, GPS and Wifi
It supports Power of Ethernet (PoE) IEEE 802.3af/at - Complies with Class 4, 48V
Industrial grade IP65 enclosure with cable glands

WHO IS IT FOR?

With IP65 protection grade, it is ideal for outdoor installation, for creating a widespread LoRa network in small areas or for remote reading nodes in several adjacent buildings.

MiDoMet LoRaWAN Lite Gateway



The **MiDoMet LoRaWAN Lite Gateway** is an indoor 8 channels gateway, with Ethernet and LTE connectivity integrated. It supports the MQTT Bridge mode, with the option for TLS authentication.

TECHNICAL FEATURES

Full support LoRaWAN Stack (V 1.0.2)
LoRa concentrator, cell phone and Wifi
It can be integrated with both private (ChirpStack) and public (TTN) network servers
IP30 Protection Grade

WHO IS IT FOR?

It is a perfect solution for indoor installations, for example for use in flat blocks. The package includes a LoRa antenna, mounting kit.

MIDOMET PROBES AND SENSORS



MiDoMet probes and sensors are robust, easy to use, compact in size, lightweight and with excellent stability.

They allow you to accurately measure the **level, pressure, temperature and quality** of fluids in tanks or networks.



MiDoMet Level Probe



MiDoMet Level Probe is a submersible **level** transducer/transmitter completely sealed with IP68 protection. MiDoMet Level Probe is robust, easy to use, has compact dimensions, is light weight and has excellent stability.

TECHNICAL FEATURES

Pressure/Level Range	0-0.1 Bar.....50 Bar/0-1 Mt.....500Mt
Output	4-20 mA
Accuracy	±0,50% FS - High precision ±0,25% FS
Protection	Reverse polarity, over voltage and pressure surge
Temperature	from -30 to 70 °C

WHO IS IT FOR?

The MiDoMet Level Probe transducer / transmitter can be used for level measurements of tanks, networks or in the fields of purification, electricity and water supply process control.

MiDoMet Level Sewage/Waste Probe



MiDoMet Level Sewage/Waste Probe is a submersible **level** transducer/transmitter completely sealed with IP68 protection. It is suitable for measuring the **level of waste water or sewage**.

TECHNICAL FEATURES

Pressure/Level Range	0-0.1 Bar.....50 Bar/0-1 Mt.....500Mt
Output	4-20 mA
Accuracy	±0,5 % FS - High precision ±0,25% FS
Protection	Reverse polarity, over voltage and pressure surge
Temperature	from -30 to 80 °C

WHO IS IT FOR?

It can be used for level measurements of tanks, in the network or in the fields of control of purification processes, electricity and water supply, drainage and hydrology, etc.

MiDoMet Pressure Probe



MiDoMet Pressure Probe is a submersible **pressure** transducer/transmitter completely sealed with IP68 protection.

MiDoMet Pressure Probe is robust, easy to use and to connect to the network.

TECHNICAL FEATURES

Pressure/Level Range	0-0.1 Bar.....50 Bar/0-1 Mt.....500Mt
Output	0 - 5/10 V
Accuracy	$\leq \pm 0.5\% \text{ F.S}$ (Standard) $\leq \pm 0.25\% \text{ F.S FS BS}$
Protection	Reverse polarity, over voltage.
Temperature	from -30 to 70 °C

WHO IS IT FOR?

It can be used for pressure measurements in the network, for districting, in the fields of control of purification processes, electricity and water supply.

MiDoMet Pressure HT Probe



The **MiDoMet Pressure Probe HT** high temperature transmitter/transducer uses a high quality piezoresistive pressure sensor suitable for fluid temperatures up to **150 or 300 °C**.

TECHNICAL FEATURES

Pressure Range (bar)	1 a 0; 0 a 0.1; 0 a 2000
Output	0 ~ 5V (4-20mA)
Accuracy	$\leq \pm 1\% \text{ F.S} \leq \pm 0.5\% \text{ F.S}$
Protection	from over voltage
Temperature	from -50 to 150 °C (o 300°C)

WHO IS IT FOR?

It is ideal for pressure measurements in tanks, networks or in the fields of control of purification processes, electricity and water supply, when working with fluids at high and very high temperatures.

MiDoMet Ultrasonic



MiDoMet Ultrasonic is a compact **level** transmitter consisting of the combination of an ultrasonic sensor, temperature sensor, ultrasonic circuit and transmitter.

TECHNICAL FEATURES

Range	3 m, 5 m, 7 m, 10 m, 12m
Output	4-20mA o 0-5 V
Accuracy	0.5% F.S. (25°C)
Beam Angle	< 12°
Temperature	-20 ° / + 50 °C

WHO IS IT FOR?

It can be used in a wide range of applications, for non-contact level measurement of liquids, comprehensive of volatile, flammable, explosive or highly corrosive liquids.

MiDoMet Temp Probe



MiDoMet Temp Probe is an integrated isolated type **temperature** sensor.

The hermetically sealed case makes it suitable for a wide range of indicated measuring ranges and for immersion in most industrial liquids and oils.

TECHNICAL FEATURES

Range	0°-250°; 0°-300°;
Output	4-20mA
Linearity	±0.1%F.S.; ±0.25%F.S.
Power	9 ~ 30 Vdc
Working pressure	40Bar (standard); 300 Bar (optional)

WHO IS IT FOR?

It can be used for temperature measurements in the network or in the fields of control of purification processes, electricity and water supply.

MiDoMet Pressure Probe COEM



MiDoMet Pressure Probe COEM is a pressure transmitter designed to suit many measurement and pressure applications. With ceramic measuring cell, it is designed for nominal pressures from 0 to 600 bar.

TECHNICAL FEATURES

Pressure Range	1 to 1..0 to 0.1...0 to 600
Output	0,5 ~ 4,5 V ratiometric
Accuracy	≤ ±0,5%F.S
Protection	explosion and over-voltage
Working temperature	-40°C~100°C

WHO IS IT FOR?

It can be used for pressure measurements in the network, in the fields of control of purification processes, electricity and water supply.

MiDoMet Radar



MiDoMet Radar is a simple and fast non-contact liquid level measurement using microwave radar technology. It can realize non-contact measurement of water level in rivers, open channels, in front of dams, sewage pipe networks, etc.

TECHNICAL FEATURES

Pressure Range (bar)	-1~3
Measure Range	0.2-10m
Accuracy	±10mm(typical), ±2mm/±5mm(customized)
Signal output	0-5V+RS485 MODBUS RTU; 0-10V+RS485 MODBUS RTU; 4-20mA+RS485 MODBUS RTU optional

WHO IS IT FOR?

It can be used in various industries and applications, including liquids, distance and harsh environments such as chemicals, oil and gas, wastewater treatment and food processing

MiDoMet NTU1



MiDoMet NTU1 is the simplest remote turbidity detection system. Turbidity measurement takes place through 90 ° NIR diffused light with nephelometric principle and with automatic temperature compensation.

TECHNICAL FEATURES

Measure Range	0 - 4000NTU
Output	4-20mA
Accuracy	±5.0%FS
Power	DC9-30V (recommend DC12V)
Temperature	0 °C / + 65 °C

WHO IS IT FOR?

Perfect product to be used in water treatment processes for civil, sanitary, or industrial use.

MiDoMet NTU2



MiDoMet NTU2 is the remote turbidity detection system equipped with self-cleaning system and control unit, which allows simple calibration of the sensor.

TECHNICAL FEATURES

Measure Range	0.01-100 NTU , 0.01-4000 NTU
Output	Serial ModBus RS485 / 4-20mA
Accuracy	± 2% of the value, o ± 0.1 NTU
Power	AC 220V 5W - DC 24V
Temperature	-15 °C / + 65 °C

WHO IS IT FOR?

Perfect product to be used in water treatment processes for civil, sanitary, or industrial use.

SOFTWARE SOLUTION FOR MONITORING



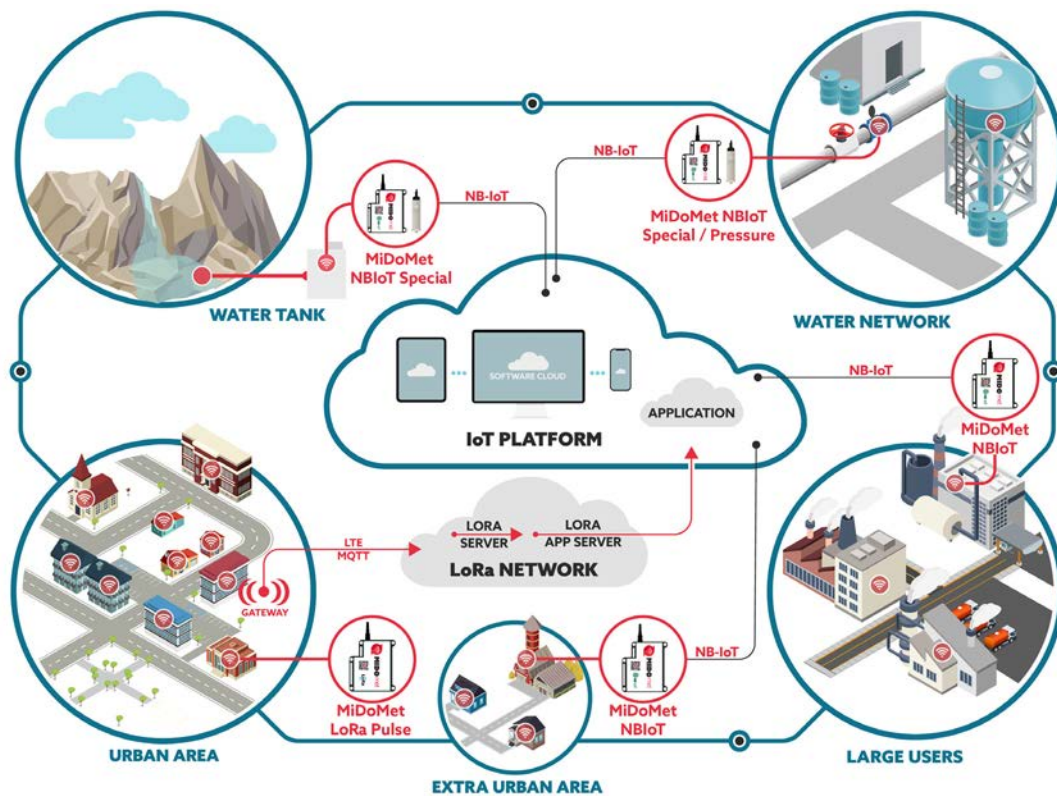
MiDo completes its offer with **customized software solutions** based on the needs of its customers, with the aim of providing a complete **remote monitoring system** capable of supporting the management of its own network.

In the scenarios of new **smart cities**, monitoring water resources, in an exact and easy way, will be the goal of distributors and consumers, who will have to adapt to a constantly **evolving reality**.

We at MiDo have responded to the urgent requests for innovation and the vital need to preserve water resources by creating two solutions: the **MiDoMet Cloud** system and the **MiDoMet Soft system**.

The company's **mission** has always been in the research and implementation of cutting-edge solutions modeled on customer needs.

MiDoMet Soft



MIDOMET SOFT

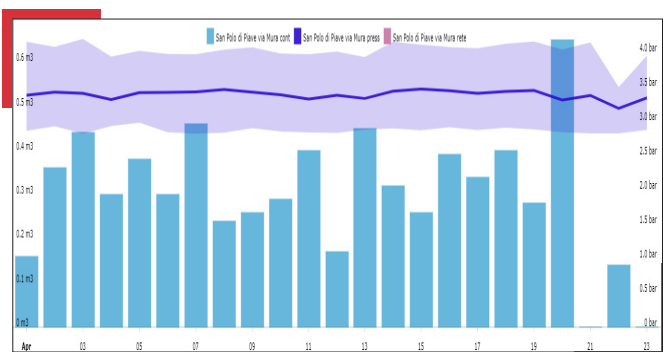
Service of smart solutions for **integration** and **innovation** to existing monitoring systems for the control of consumption.

MiDo develops customized solutions for both products and associated services, and above all it can develop transmission protocols for the specific needs of users (industrial or domestic).

MiDoMet Soft is a service of innovative smart solutions and integration with existing monitoring systems for controlling consumption.

Midomet Soft energy management software is a simple and effective tool to optimize the work of apartment blocks administrators and utility companies. Midomet Soft allows you to control consumption and effectively monitor the network remotely. A smart service that makes the compilation of financial statements faster and more precise. It is the best solution to reduce management and maintenance costs.

REAL CASES



MiDoMet CLOUD

MiDo completes its offer with **Cloud** solutions, with the aim of providing a complete system for managing data from MiDoMet devices.

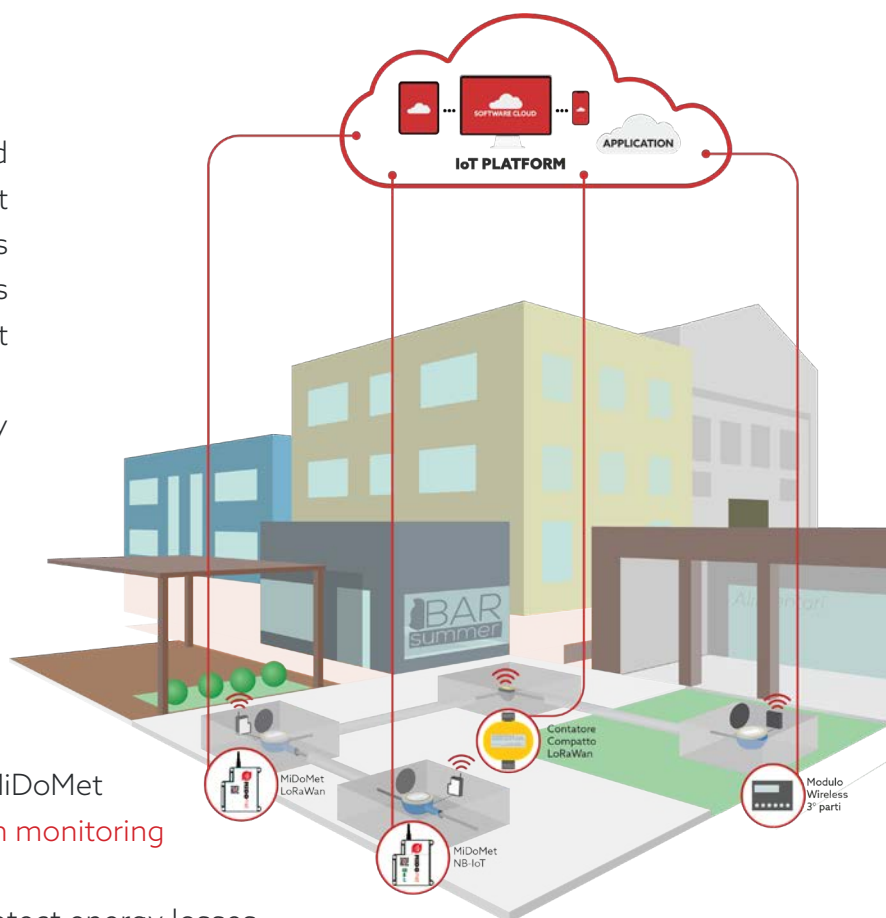
MIDOMET CLOUD

It combines products and services, to be able to support customers (apartment blocks administrators, facility managers and utilities) in the management of industrial or private users. The goal is to promote efficiency in the service of energy saving.

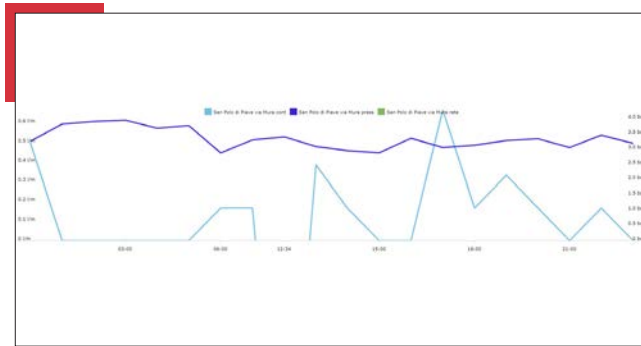
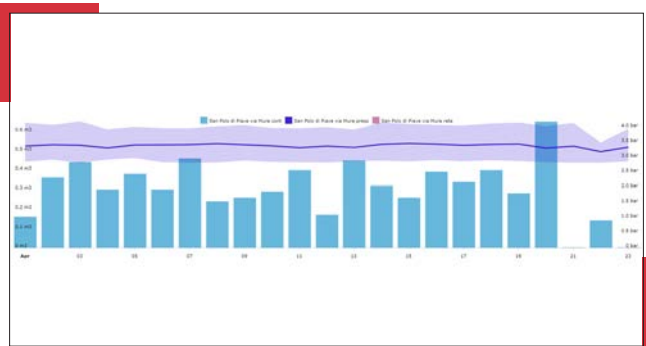
Thanks to MiDoMet Cloud you can manage data coming from MiDoMet devices and carry out an **in-depth monitoring** of consumption. In addition it can immediately detect energy losses, failure or theft.

The system is **multi-level** and **multi-access**, so different users can access with different skills and purposes.

The administration can use it for billing on real consumption, the maintenance technician for checking the proper functioning of the systems and the user for viewing their real consumption.



REAL CASES



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