AIUNEO aiut brand

APULSE x1A6

for Smart Water Metering

NB-IoT Data Logger

SOLUTION FOR THE REGISTRATION & TRANSMISSION OF WATER METER DATA

APULSE x1A6 is a battery-powered IoT data logger that can be installed on water meters from various manufacturers. The devices registers hourly consumption profiles and detects unauthorised usages. The collected data is transmitted to the server using NB-IoT technology, which provides a stable and reliable connection.

LOW POWER CONSUMPTION & EXCELLENT COVERAGE

The APULSE x1A6 is characterized by low energy consumption, while the NB-IoT communication ensures cost-efficient system operation.
The device ensures bidirectional transmission even in hard-to-reach locations, such as water meter pits, basements, underground garages, or densely built-up areas.

- Compatible with various water meters
- Excellent coverage, even in densely built-up areas
- Designed for outdoor use (IP68)
- NB-IoT communication technology

FLEXIBLE READINGS & LONG-LASTING BATTERY LIFE

APULSE x1A6 is equipped with a Bluetooth module that allows convenient data reading, on-site device configuration, and diagnostics via a dedicated mobile app. The estimated battery life of the device is up to 10 years with daily data transmission.

aiut

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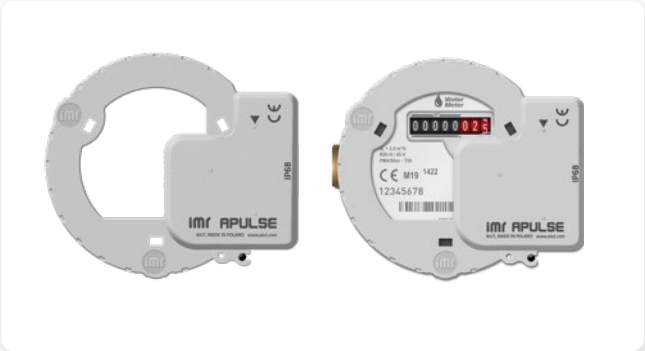


APULSE D1A6-Fxxx

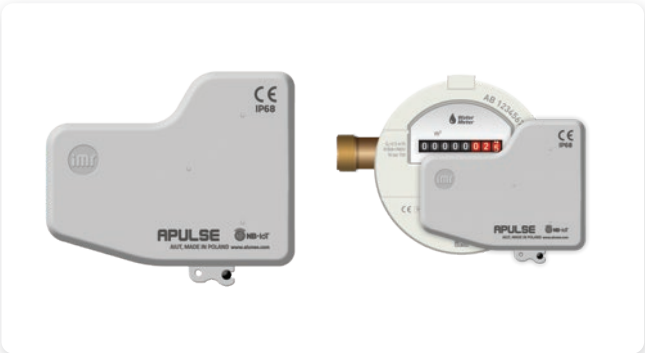
DIEHL

Supported water meters	▪ Altair V4, Altair V3, Aquarius V3, Aquila V3, Aquila V4, Wesan WPVG, Wesan WP G
Dimensions	▪ height: 36 mm (109 mm with antenna), ▪ width: 87 mm, ▪ depth: 98 mm
Battery type	▪ Non-replaceable

APULSE D1A6-xxxx

DIEHL

Supported water meters	▪ Altair V4, Altair V3, Aquarius V3, Aquila V3, ▪ Aquila V4, Wesan WPVG, WesanWP G
Dimensions	▪ height: 60 mm (109 mm with antenna), ▪ width: 87 mm, ▪ depth: 98 mm
Battery type	▪ **APULSE D1A6-Lxxx:** replaceable, single ▪ **APULSE D1A6-Jxxx:** double, non-replaceable



APULSE I1A6-Fxxx

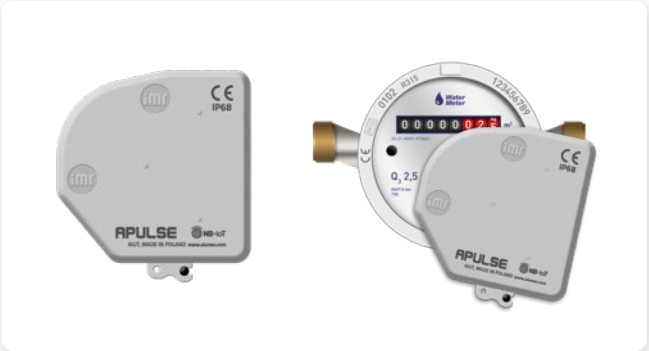
ITRON

Supported water meters	▪ Flodis, Aquadis+, Flostar, Woltex M, Unimag Cyble, MSD Cyble
Dimensions	▪ height: 35 mm (108 mm with antenna), ▪ width: 78 mm, ▪ depth: 68 mm
Battery type	▪ Non-replaceable

APULSE I1A6-xxxx

ITRON

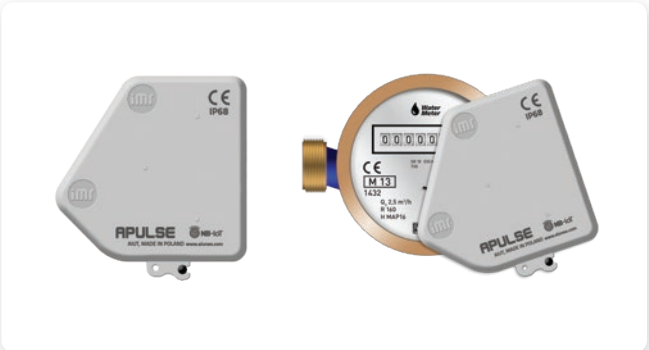
Supported water meters	▪ Flodis, Aquadis+, Flostar, Woltex M, Unimag Cyble, MSD Cyble
Dimensions	▪ height: 56 mm (108 mm with antenna), ▪ width: 78 mm, ▪ depth: 68 mm
Battery type	▪ **APULSE I1A6-Lxxx:** replaceable, single, **APULSE I1A6-Jxxx:** double, non-replaceable



APULSE S1A6-Fxxx

SENSUS

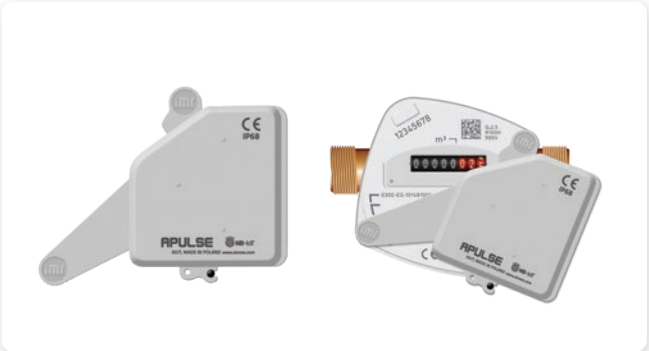
Supported water meters	▪	120, 120C, 405S, 420, 420PC, 620, 820
Dimensions	▪ ▪ ▪	height: 35 mm (108 mm with antenna) width: 68 mm, depth: 62 mm
Battery type	▪	Non-replaceable



APULSE B1A6-Fxxx

BAYLAN

Supported water meters	▪	K K-1, K K-12 , K K-13 , K K-14 , K K-16 , K K-17, TK-2, VK-6, VK-10 and VK-11
Dimensions	▪ ▪ ▪	height: 39 mm (108 mm with antenna), width: 65 mm, depth: 64 mm
Battery type	▪	Non-replaceable



APULSE E1A6-Fxxx

HONEYWELL

Supported water meters	▪	S150, S220, V200, V200P,V210, V210P, C4000
Dimensions	▪ ▪ ▪	height:35 mm (108 mm with antenna), width: 95 mm, depth: 75 mm
Battery type	▪	Non-replaceable

APULSE v1A6-xy**

xy	BATTERY	ANTENNA	WATER METER
F0	single, non-replaceable	whip	Diehl, Itron, Sensus, Baylan, Honeywell
F5	single, non-replaceable	external SMA (fig.1)	Sensus, Baylan, Honeywell
I0	double, replaceable	whip	Diehl, Itron
I5	double, non-replaceable	external SMA (fig.1)	Diehl, Itron
L0	single, replaceable	whip	Diehl, Itron
L5	single, replaceable	external SMA (fig.1)	Diehl, Itron

V - DEVICE TYPE

D - Diehl water meter

B - Baylan water meter

S - Sensus water meter

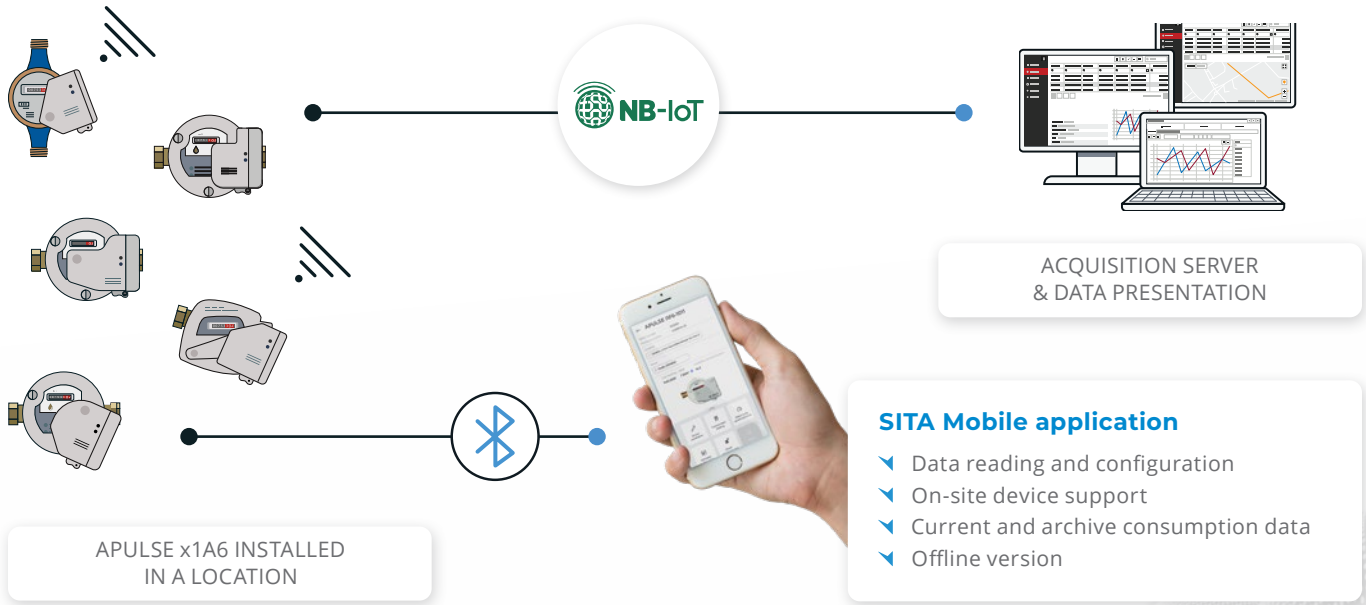
I - Itron water meter

E - Honeywell water meter

Fig.1. APULSE x1A6 with external SMA antenna

READY TO USE

The APULSE x1F6 takes pulses from the water meter and transmits the calculated consumption data to the acquisition server via NB-IoT technology. Subsequently, the data can be further processed at a third-party data center.
The use of NB-IoT communication eliminates the need for investing in costly infrastructure. This allows for full coverage across the entire country, provided by the selected operator. Additionally, the dedicated mobile app enables convenient data reading, on-site device configuration, and diagnostics.



SITA Mobile application

- Data reading and configuration
- On-site device support
- Current and archive consumption data
- Offline version

Functional and Technical Specifications

Data structure

- Default data recording interval: 60 minutes
- Hourly/daily/monthly readings
- Temperature, signal quality, consumption, battery status, maximum flow
- Event detection: device removal, external magnet, leak detection
- Device status: exceeded temperature, exceeded allowed instantaneous flow, device issues

Flexible configuration

Exemplary configuration ensuring 10-year battery life:

- Data packet transmission: 1x per day,
- BLE module active for 16 hours per month and via magnetic activation

Environmental Parameters

- Operational temperature: -25°C to +55°C
- Ingress protection: IP68

Communication

- NB-IoT
  - operating bands: B3, B8, B20
  - embedded SIM (MFF2)
  - external SMA antenna (optional)
- BLE 5.4 - 2,4GHz, +6dBm

Power supply

- Non-replaceable or replaceable battery (depending on products specifications – see the table on pages 2 and 3)
- Estimated 10-year battery life*

*The battery life depends on the device's target configuration, environmental conditions, and user interaction with the device.

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