AIUNEO aiut brand

APULSE-W x1F5

IoT data logger for Smart Water Metering

LoRa imr Multiprofile IoT

- Compatible with various AMR ready water meters
- Uni- or bidirectional radio transmission
- High capacity data storage
- Suitable for flooded pits (IP68)
- Estimated battery life: up to 10 years
- Direct installation

APULSE-W x1F5 are autonomous, battery powered IoT data loggers that can be installed on various AMR-ready water meters and register consumption profile as well as magnet and tamper detection. The devices transmit the received data via LoRa low power network. APULSE-W and water meter are inductively coupled what prevents from magnetic fraud. The estimated battery life of the device is up to 10 years with daily data transmission.

Smart Water Metering by AIUT is suitable for fixed and walk-by reading. The systems can operate simultaneously for maximum convenience and gradual implementation of further investments.

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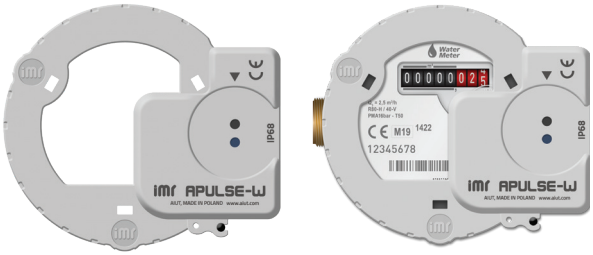
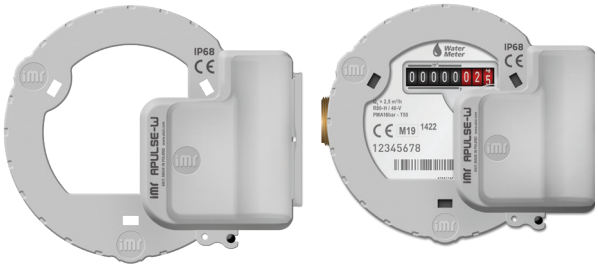
LoRa Alliance Member



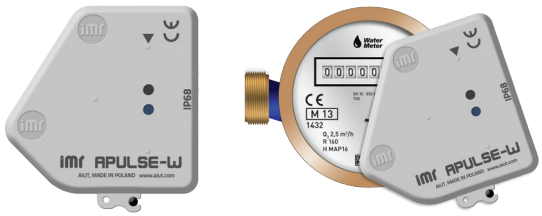
APULSE-W D1F5-1xxx | DIEHL

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, AA Saft LS14500, 3.6 V, 2600 mAh



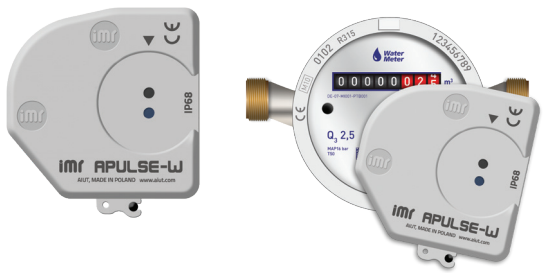
APULSE-W D1F5-xxxx | DIEHL

Supported water meters	▪ Altair V4, Altair V3, Aquarius V3, Aquila V3, Aquila V4, Wesan WPVG, Wesan WP G
Dimensions	▪ height: 60 mm (109 mm with antenna), ▪ width: 87 mm, ▪ depth: 98 mm
Battery type	▪ **APULSE-W D1F5 2xxx:** replaceable, single AA Saft LS14500, 3.6 V, 2600 mAh ▪ **APULSE-W D1F5 5xxx:** non-replaceable, double AA Saft LS14500, 3.6 V, 2600 mAh



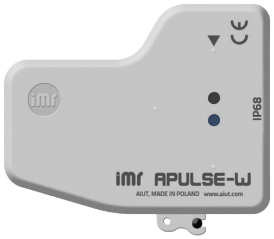
APULSE-W B1F5-1xxx | BAYLAN

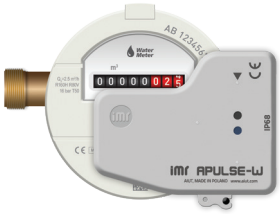
Supported water meters	▪ K K-1, K K-12 , K K-13 , K K-14 , K K-16 , K K-17, TK-2, VK-6, VK-10 and VK-11
Dimensions	▪ height: 39 mm (108 mm with antenna), ▪ width: 65 mm, ▪ depth: 64 mm
Battery type	▪ Non-replaceable, AA Saft LS14500, 3.6 V, 2600 mAh



APULSE-W S1F5-1xxx | SENSUS

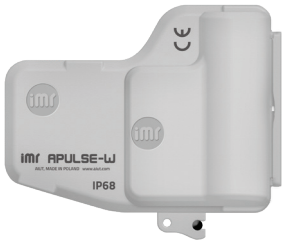
Supported water meters	▪ 120, 120C, 405S, 420, 420PC, 620, 620C, 820
Dimensions	▪ height: 35 mm (108 mm with antenna) ▪ width: 68 mm, ▪ depth: 62 mm
Battery type	▪ Non-replaceable, AA Saft LS14500, 3.6 V, 2600 mAh

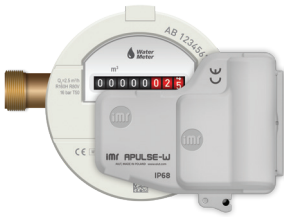




APULSE-W I1F5-1xxx | ITRON

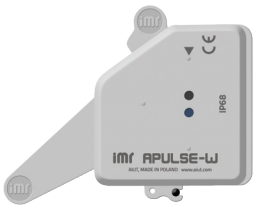
Supported water meters	▪ Flodis, Aquadis+, Flostar, Woltex M, Unimag Cyble, MSD Cyble
Dimensions	▪ height: 35 mm (108 mm with antenna), ▪ width: 78 mm, ▪ depth: 68 mm
Battery type	▪ Non-replaceable, AA Saft LS14500, 3.6 V, 2600 mAh

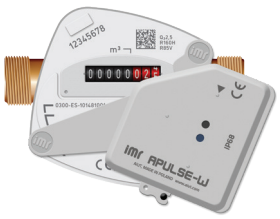




APULSE-W I1F5-2xxx | ITRON

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	▪ Replaceable, AA Saft LS14500, 3.6 V, 2600 mAh





APULSE-W E1F5-1xxx | 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, AA Saft LS14500, 3.6 V, 2600 mAh

APULSE-W **v1w5-xy****

v - device type

D - dedicated for Diehl water meters
B - dedicated for Baylan water meters
S - dedicated for Sensus water meters
I - dedicated for Itron water meters
E - dedicated for Honeywell water meters

w - type of communication

F - transceiver 868/915MHz, protocol LoRa WAN/IMR

x - type of battery

1 - single, non-replaceable
2 - single, replaceable
5 - double, non-replaceable

y- hardware modifications

0 - whip antenna
3 - external SMA antenna
(Fig.1)

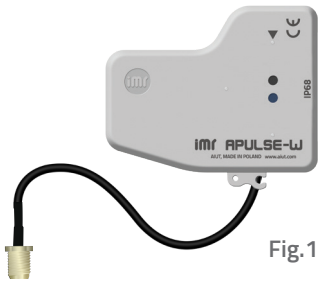
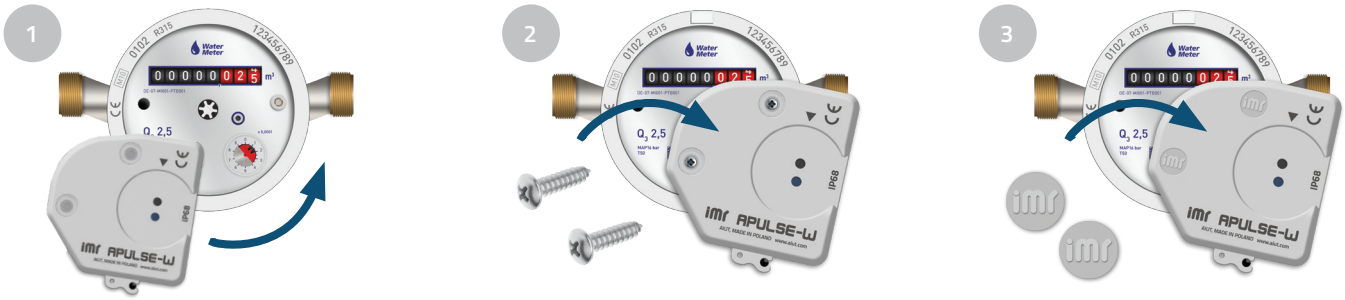


Fig.1

INSTALLATION

The installation procedure is very intuitive and can be performed in a couple of minutes.
You simply fix the data logger to a water meter with screws and secure it with plastic seals.



TECHNICAL PARAMETERS

Low Power Radio Communication

- LoRa transmission:
  unlicensed 868 MHz band (EU868), hourly readouts, radio frame - twice a day (by default)
- IMR IoT: 868MHz, 25mW
  range: 1000m (open space)
  radio frame - twice a day (scheduled) or on request
- Walk-by frames including 31 daily readouts by default
- IMR IoT bidirectional communication after transmission: data archive, diagnostics, configuration
- Event transmission: LoRa and IMR IoT
- Event types: device removal, external magnet, reverse/ max/min/no flow, low battery
- Summary reports with consumption profile
- Opto port and IMR IoT radio available for on-site set up, configuration and diagnostic
- Integrated whip antenna, external SMA as an option

Power Supply

- Non-replaceable or replaceable* Li-$SOCl_2$ battery
- Battery lifetime: up to 10 years**

*Depending on product specifications - see the table on pages 2 and 3
*Depending on the device's target configuration, environmental conditions, and user interaction with the device.

Environmental Parameters

- Robust design, secured with seals
- Suitable for outdoor environment
- Operational temperature: -25°C to +55°C
- IP68

SITA - mobile application

- Application for readings and configuration of APULSE-W
- On-site operations: easy data synchronisation, configuration & installation
- Convenient walk-by readings
- Current and archive consumption data

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