

## addanode Industrial Instrument Solution



With ultra-low power wireless communication protocols like LoRaWAN / addaNet, combined with high-speed connectivity through LTE and Ethernet, our solutions ensure efficient, uninterrupted data collection and transmission. Features like real-time alerts, configurable reporting intervals, and robust security measures make your operations smarter and more reliable.

addanode platform supports a wide range of communication technologies, including LTE, WiFi, Ethernet, Bluetooth, RFID, and LoRaWAN, offering unmatched versatility for various industrial environments. Whether it's for remote monitoring or in-plant automation, we deliver solutions tailored to your needs.

Our system is designed to be fully compatible with instruments from leading manufacturers, including:

- Emerson Electric Co. (Rosemount, Micro Motion)
- ABB Group
- Siemens
- Honeywell
- Yokogawa Electric Corporation
- Endress+Hauser
- VEGA
- Krohne
- Schneider Electric
- Fuji Electric
- WIKA
- Badger Meter

### Technical Specifications:

- Main Protocol Supported: Modbus, Mbus, HART, Profibus, CAN, EtherNet/IP, OPC
- Upstream Mode: LTE / WiFi / Ethernet / Bluetooth / RFID / LoRaWAN
- Power Options: DC9~28V, AC230V or Solar Battery with Lithium Battery Backup
- Cloud based Security

## addanode Water Management Solution

**SENSUS**



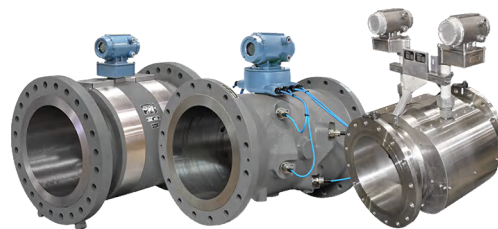
**elster  
Honeywell**



**PRECISION  
METERS**



**ARAD  
TECHNOLOGIES**



### Compatible with Brand and Sensors:

- Sensus RD01/RD02 Reed Switch, HRI-B, HRI-Mei
- Honeywell Elster PR7/PR6, V100/T110 Reed Switch, Elster H4000/H3000 Reed Switch
- Precision Meters Woltman Series
- ARAD Wst Pulse Kit, Octave Pulse Kit
- Digital Water Meters (Modbus / Hart) such as Mass Flow Meters, Ultrasonic Water Meters, EM Water Meters etc.
- Smart Wireless Water Meters based on the technologies such as LoRaWAN Sigfox NB-IoT LTE Cat1 / Cat4

### Effortless Smart Upgrade Without Replacing Your Water Meters

#### Key Benefits:

- Seamless integration
- Automated data collection
- Accurate usage insights
- Scalable, low-cost setup
- Centralized dashboard

Optimize resources, minimize manual work, and embrace the future of water management.

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Digital Clear Goals

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## addaG2 LoRaWAN Gateway



### Revolutionary LoRaWAN Gateway: High Performance, Cost-Effective, and Uniquely Designed

Our LoRaWAN gateway sets a new benchmark in wireless communication with its robust industrial-grade design and advanced capabilities. Designed to support the EU868/EU433 frequency band, it ensures seamless integration into a wide range of IoT applications, from smart cities to industrial automation.

#### Key Features

**Versatile Connectivity Options:** Supports **4G, WiFi, and Ethernet**, offering flexible and reliable communication methods for diverse deployment scenarios.

**Industrial-Grade Design:** Built to withstand harsh environments, making it ideal for outdoor and industrial use cases.

**Innovative Backend Architecture:** Unlike traditional gateways that rely on Linux-based systems, our gateway eliminates this layer, significantly reducing hardware complexity and operating costs. This streamlined architecture ensures efficient operation while maintaining top-tier performance.

#### Technical Specification:

- UpStream: 4G/LTE, WiFi, Ethernet
- DownStream: LoRaWAN
- LoRa Modem: SX1302
- Protocol: LoRaWAN1.0.2 / 1.0.3 / 1.0.4
- LoRaWAN Class A/C
- UDP Packet Forward
- Coverage Range: 5~12Km
- Available Frequency Bands:
  - EU433 / EU868
- Firmware Upgrade: Web / OTA
- Remote management: Web / MQTT
- Casing: IP67
- Power Options: DC9~28V, AC230V or Solar Battery with Lithium Battery Backup

## addaN4 Standard Low Power Waterproof Sensor Node: Generic Node



**addaN4** Generic node is equipped with multiple standard interfaces, enabling the following functionalities:

1. Analog input and output, supporting devices such as 4-20mA industrial sensors, pressure sensor, temperature sensors.
2. Digital input and output, suitable for applications like pulse flow meter measurement, gate switch control, dry contact triggering, relay control, and water pump operation.
3. I2C low-power digital sensors, used for monitoring parameters such as air quality, temperature and humidity, pressure, and negative pressure differentials.
4. Modbus interface for industrial instruments, including HART-compatible devices like Simens, Vega and E+H flow meters and level meters.
5. RS485/RS232 interface for sensors such as smart electricity meters, smart water meters, air conditioning controllers, and high-precision fuel level sensors.

### Technical Specification:

- Network Mode: addaNet / LoRaWAN
- Microcontroller: STM8L / STM32L
- Wireless Chip: SX1276/78
- Interfaces: I2C, USART, Modbus
- ADC/DAC: 12-bit ADC, 12-bit DAC
- I/O: 5 x GPIO
- Modem: LoRa Modem
- Functionalities:
  - Preamble Detection
  - Configurable Baud Rate
- Available Frequency Bands:
  - EU433 / EU868
- Casing: IP67
- Power Consumption: Ultra Low Power (4uA typical)
- Battery Options: ER14505 3.6V@2700mAh or 5400mAh Li/SOCL2 Battery or Lithium Battery or Solar Battery