MicroEdge

The MicroEdge is Nube-iO's multi-purpose wireless (LoRa®) IoT asset monitoring sensor. Designed to interface with low level sensors, pulse sensors (water, electrical, gas, etc.), in a small package, Reducing the installation time.

The MicroEdge provides 3 analog Inputs, and 1 Digital Pulse Accumulation Input. Values are sent wirelessly to the gateway controller, making installation hassle free.

Powered by a 4000mAh battery, the MicroEdge has a runtime of 8 - 10 years depending on the configured push rate.

LoRa® wireless IoT technology offers a long transmission range, optimises battery life, and is less susceptible to object interference than other wireless technologies.

Technical Data

General	
Dimensions	115mm x 65mm x 40mm or 4.53in x 2.56in x 1.58in
Power supply	Battery: 2-10 years runtime depending on configured push rate
Push rates	Adjustable: 30sec, 1min, 3min, 5min, 15min, 30min, 1h
IP rating	IP65
Operating temperature	-20°C to 80°C
Material type	ABS plastic (Acrylonitrile Butadiene Styrene)
Low level inputs	3 x Analog input: 10k thermistor, digital / dry contact 1 x Digital pulse (Dry Contact or 3.3v max) accumulation
ADC bit count	10bit (0.085ºC resolution at 25ºC using 10K type2 temperature sensor)
Model Numbers	ME-05-N1
Wireless Communications	
LoRa®	**Supported Frequencies:** AU915 **Spreading Factor:** 7 **Bandwidth:** 250 kHz

Configuration

DIP switch push rate									
DIP Switches 1-3 Data Interval/Push Rate	**Interval (minutes)**	0.5	1	3	5	10	15	30	60
	Switches 1,2,3	100	010	110	001	101	000	011	111
DIP switch setting									
Switch 6, Reset pulse count	Set DIP 6 ON/1, Push the Reset Button, Wait 5 seconds, Set DIP 6 OFF/0, Push the Reset Button.								
Switch 7, Testing mode	In the ON/1 state, this mode supersedes all other Push Rate configurations, assigning a static Sensor ID (AAACAAAA) and transmitting data at a consistent 8-second interval. Conversely, when set to OFF/0, the device adheres to its pre-configured push rate and utilises its self-assigned Sensor ID.								

Testing pulse input

Due to the power-saving feature of the MicroEdge, which records pulse count only during the wake phase from sleep state, it's important to avoid pressing the reset button before the device wakes up on its own. This precaution is necessary to prevent loss of pulse data. To effectively test the pulse counter, follow these steps:

1. Water Meter Disconnection: Ensure the water meter is disconnected from the device to facilitate an isolated test environment.
2. Configuration Setting: Adjust the device's push interval to 30 seconds. Refer to the datasheet, dips = '100' for 30 seconds.
3. Device Reset: Initiate a reset by pressing the device's reset button.
4. Terminal Shorting: Manually short the pulse terminals several times to simulate input signals.
5. Wait for Data Transmission: After the terminal shorting, allow a wait time of 30 seconds, and you will see the LEDs flash when a message is sent.

About Nube iO

At Nube iO, we make buildings smarter. From enterprise and industrial portfolios to light commercial and smart homes, our scalable, data-driven technology bridges BMS and IoT to connect devices, systems, and spaces - giving users simpler control, clearer visibility, and more sustainable operations.

Built to scale from single sites to entire portfolios, our ecosystem — including traditional controls, wireless sensors, protocol-ready gateways and licence-free programming software — delivers seamless integration and real-time optimisation. Backed by global expertise and a focus on innovation, we make building automation smarter, simpler, and future-ready.

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