Pulse S0

LoRaWAN®

The **PULSE S0** sensor enables remote metering of water, gas, electricity or heat meters. It transforms existing meters into communicating meters via a public or private LoRaWAN® network.

APPLICATIONS

- Remote reading of water, gas, electricity or heat meters with a pulse output.
- Remote reading of the load curve.
- Cost-effective and fast solution that turns any meter into a communicating meter.

BENEFITS & FEATURES

- LoRaWAN®, Class A.
- Easy to install and use.
- Differential data compression.
- 3 years battery life (data compression mode).

CERTIFICATION

- RoHS, CE, AtEx Zone II (battery)

Sensors delivered without WATTECO marking

The **PULSE S0** sensor enables remote reading of metering data from the pulse output of water, gas, electricity or heat meters. It transforms existing meters into communicating meters via a public or private LoRaWAN® network.

Installation and commissioning is quick and easy. The sensor has:
- a switch to turn it on and off,
- 2LEDs to monitor the configuration and association on the network.

Metering data can be stored in local memory and compressed before being transmitted over the public or private LoRaWAN® network. This transfer technique is particularly suitable for the transmission of load curves as it considerably reduces the amount of data transmitted while preserving the autonomy of the sensor

When powered by a 3.6V/1.1Ah battery, the sensor has a battery life of 3 years (data compression mode) when configured to perform one measurement per hour and one transmission per day.

THE LARGEST IOT PRODUCTS RANGE FOR YOUR PROJECT

WATTECO is a European leader in the design and manufacture of intelligent IoT devices to fit to all remote reading and data collection solutions.

WATTECO is a LoRa Alliance® member.

TECHNICAL CHARACTERISTICS

RADIOFREQUENCY	
Frequency (MHz)	EU: 863-870
TX power (dBm)	+14
Sensitivity (dBm)	-140
FIRMWARE	
Protocol	LoRaWAN®, Class A
Transmission cycles	Configurable from 10 min to 24h
Data compression	yes (differential coding)
Activation method	Activation by Personalization (ABP) or Over-The-Air Activation (OTAA)
Data encryption	AES128
INPUT	
Number of input	1
Impedance (MΩ)	>1
Capacity (nF)	1; typical
Voltage(V)	0 - 75
Current (mA)	3.5
Frequency (Hz)	1 - 500
Anti-bounce	from 0 to 1 minute in 125ms increments
POWER SUPPLY	
Voltage	3,6V / 1200mAh - lithium battery - AtEx Zone II certified
Autonomy in a range of +10°C to +25°C	3 years - 1 measurement per hour - 1 transmission per day
INTERFACE	
LEDs	Configuration and association on the network
Switch	Reset, ON/OFF
ENCLOSURE	
Dimension (mm) – IP rating	75 x 70 x 21 – IP30
ENVIRONMENT	
Operating temperature (°C)	-20 / +40
Storage temperature (°C)	0 / +30
STANDARDS & REGULATIONS	
Radio Equipment Directive 2014/53/EU, RoHS	CE ☒ RoHS 2011/65/EU ⟨Ex⟩ II 3 G Ex ic IIB T6 Gc

PRODUCT NUMBER

REFERENCE	DESCRIPTION
50-70-001	LoRaWAN® Pulse S0 Outdoor Sensor - Atex Zone II Certified