

LoRaWAN™ PULSE S0 SENSOR



PULSE S0 is a LoRaWAN™ sensor radio transmitting data from any residential pulse meters: water, gas, electricity, energy.

APPLICATIONS

- Wireless AMR – Smart metering
- Infrastructure: all meters with pulse interface can be integrated quickly and cost-effectively into a LoRaWAN™ network without expensive and time-consuming cabling.

BENEFITS & KEY FEATURES

- LoRaWAN™, Class A
- Easy to use and deploy
- Data compression for batch report
- Minimum autonomy: 3 years

QUALITY & RELIABILITY

- CE Compliant
- RoHS compliant
- AtEx Zone II compliant



The Class A LoRaWAN™ PULSE S0 from nke Watteco is a long range, low power consumption, high performance and high quality wireless up or down pulse sensor transmitting data from water, gas, electricity & energy meters.

The PULSE S0 SENSOR operates with any commercial meter products and provides connection to any wireless network using the LoRaWAN™ protocol.

Installation and commissioning are quick and easy.

The sensor has:

- a switch for activation / de-activation
- 2 LEDs for configuration and pairing to the network
- A 1,5m cable length.

The measured parameters (up or down pulses and battery voltage) can be locally stored, concatenated and compressed. This unique batch mechanism significantly reduce the amount of data transmission for demanding applications and drastically increase the autonomy.




Powered through a lithium battery, it allows an autonomy of at least 3 years when transmitting data one time per day.

NKE WATTECO, YOUR PARTNER IN SMART SENSORS & ACTUATORS


We are a European leader in designing and manufacturing highly reliable and low power consumption smart sensors, actuators and multiprotocol remote data solutions.

nke Watteco is an adopter member of the LoRa® Alliance

TECHNICAL CHARACTERISTICS

RF TRANSCEIVER	
Frequency (MHz)	EU: 863-870 US: 902-928 (on demand)
Transmit Power (dBm)	+14
Receiver Sensitivity (dBm)	-140
FIRMWARE	
Protocol	LoRaWAN™, Class A
Transmission cycles	10mn, 1h, 12h or defined by network
Data history	Available
Activation method	Activation by Personalization (ABP) Over-The-Air Activation (OTAA)
Data encryption	AES128
SENSOR INPUT	
Number of inputs	1
Impedance (MΩ)	>1
Capacitance (nF)	1; typical
Voltage (V)	0 - 75
Current (μA)	3.5
Frequency (Hz)	1 - 500
Anti-bounce	from 0 to 1 minute in 125ms increments
POWER	
Power supply	3,6V / 1200mAh lithium battery - AtEx Zone II compliant
Autonomy within a +10°C to +25°C temperature range	> 3 years for 1 transmission per day
INTERFACE	
LED Indicator	2 LEDs for Configuration, Network pairing
Switch	Reset, ON/OFF
MECHANICAL FEATURES	
Dimension (mm)	75 x 70 x 21
ENVIRONMENT	
Operating temperature (°C)	-20 / +40
Storage temperature (°C)	0 / +30
DIRECTIVES & STANDARD	
EN, 61000-4-2 EN 300-220-1 V2-4-1, EN 301 489 V1-6-1 CE and RoHS recommendation compliant	
  	

ORDERING INFORMATION

REFERENCE	MODEL DESCRIPTION	
50-70-001	LoRaWAN™ PULSE S0 OUTDOOR SENSOR – ATEX ZONE II COMPLIANT	 II 3 G Ex ic IIB T6 Gc