

Pulse S0 sensor



The SIGFOX® Pulse S0 is an autonomous sensor operating on battery that radio transmits data from any 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 SIGFOX® network without expensive and time-consuming cabling.

BENEFITS & KEY FEATURES

- SIGFOX®
- Easy to use and deploy
- Data compression for batch report
- Autonomy up to 12 years
- IP55 (Outdoor), IP68 (Waterproof)

QUALITY & RELIABILITY

- CE Compliant
- RoHS compliant
- AtEx Zone II compliant (option)



*Sensors delivered neutral face without marking nke
WATTECO*

The SIGFOX® Pulse S0 from nke Watteco is a narrow-band, 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 SIGFOX protocol.

SIGFOX® Pulse S0 is available in 3 versions:

- Outdoor (IP55)
- Outdoor (I55) and AtEx Zone II compliant
- Waterproof (IP68)

The Pulse S0 sensor is easy to use, deploy and maintain:

- NFC tag for identification (Part number, serial number and manufacturing number)
- Magnetic switch to activate/de-activate the device.
- Buzzer Indicator for network pairing / unpairing & configuration

The measured up or down pulses parameters 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, in data-compressed mode it allows an autonomy of up to 12 years when measuring and radio transmitting data one time per day.

The configuration of the transmitter can be done at factory or on-site allowing the choice of measurement cycle, measurement, information frame radio-transmission periodicity, low battery threshold value, data compression mode

WE HAVE THE RIGHT SENSORS FOR YOUR NEEDS




nke WATTECO is a leading European designer and manufacturer of intelligent radio frequency sensors and actuators as well as multi-protocol remote reading and data collection solutions.

nke WATTECO is a member of the LoRa Alliance®.




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TECHNICAL CHARACTERISTICS

RF TRANSCEIVER	
Frequency (MHz)	EU: 868-870
Transmit Power (dBm)	+14
Receiver Sensitivity (dBm)	-126
FIRMWARE	
Protocol	SIGFOX®
Data encryption	AES128
Measurement cycles	From 1h to 48h in 1h step
Measurement frame transmission cycles	From 2h to 48h in 1h step
Information frame transmission cycles	From 0 day to 30 days in 1day step
Alarm detection	yes
Data compression	yes (differential coding) or no
Alarm level	Battery level: 0,1V to 3,6V by 0,1V step
SENSOR INPUT	
Number of inputs	1
Impedance (MΩ)	>1
Capacitance (nF)	1; typical
Voltage (V)	0 - 32
Current (μA)	3.5
Frequency (Hz)	1 - 250
POWER	
Power supply	3,6V / 3600mAh lithium battery
Autonomy	12 years: Data compressed / 1 measurement per day / 1 transmission per day 9 years: Data compressed / 1 measurement per hour / 1 transmission per day 6 years: Data not compressed / 1 measurement per hour / 1 transmission per day
Autonomy within a +10°C to +25°C temperature range	
INTERFACE	
NFC Tag	Part number, serial number and manufacturing number
Buzzer Indicator	Network pairing / unpairing & configuration
Magnetic Switch	ON/OFF
Cable connection	IP55: cable connected inside the box. IP68: 1,5m cable length – The free end of the cable must be connected in an area that is protected from moisture
ALARMS	
ON/OFF	Transmitted instantaneously
Low battery	Transmitted at information frame rate
MECHANICAL FEATURES	
Dimension (mm)	84 x 82 x 55
IP Class	IP55 or IP68
ENVIRONMENTAL	
Operating temperature (°C)	-20 / +50
Storage temperature (°C)	-10 / +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, 2014/53/UE (RED)	
  	

ORDERING INFORMATION

REFERENCE	PACKAGE	MODEL DESCRIPTION	
50-09-038	IP55	SIGFOX® PULSE S0 OUTDOOR SENSOR	
50-09-041	IP55	SIGFOX® PULSE S0 OUTDOOR SENSOR – ATEX ZONE II COMPLIANT	 II 3 G Ex ic IIB T3 Gc -20°C ≤ Tamb ≤ + 50°C
50-09-063	IP68	SIGFOX® PULSE S0 WATERPROOF SENSOR	