nke WATTECO

Smart Metering Smart Building Smart Energy

LoRaWAN™ Flash'O

LoRaWAN™

FLASH'O is a LoRaWAN™ meter interface radio transmitting the accumulated flash LED numbers from any pulse meters: water, gas, electricity, energy.
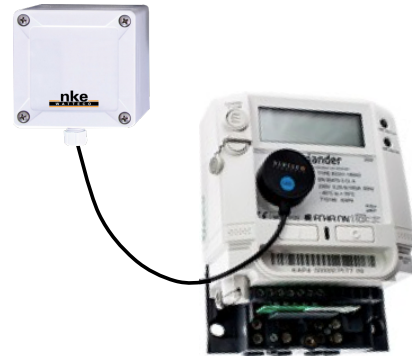
APPLICATIONS

- Wireless AMR – Smart metering
- Infrastructure: all meters with flash LED 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
- IP55
- Up to 12 years autonomy
- Up to 500 pulses/second Flash LED rate counting

QUALITY & RELIABILITY

- CE Compliant
- RoHS compliant

The Class A LoRaWAN™ FLASH'O from nke Watteco. is a long range, low power consumption, high performance and high quality sensor. It operates with any commercial electronic meter products equipped with a LED flash and provides connection to any wireless network using the LoRaWAN™ protocol.

Flash'O counts and accumulates the number of LED flashes that occurred since it has been commissioned. Based on the Impulsions per kWh or Wh indicated on the meter, the energy and power consumption can be computed.

The optical probe is easily attached either by magnets or by velcro. Cable-length is approximately 0.5m.

The accumulated number of flashes can be locally stored, concatenated and compressed. This unique batch mechanism significantly reduce the amount of data transmission for demanding applications such as load curve and drastically increase the autonomy.

Powered through a 3.6V lithium battery, the autonomy in data compressed mode is up to 12 years when measuring and transmitting data one time per day. The autonomy is reduced to 8 years when measuring one time per hour and transmitting one time per day.

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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

LoRaWAN™
FLASH'O

TECHNICAL CHARACTERISTICS

RF TRANSCEIVER	
Frequency (MHz)	EU: 863-870
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 Personnalization (ABP) Over-The-Air Activiation (OTAA)
Data encryption	AES128
Data compression	yes (differential coding) or no
Alarm level	Battery level: 0,1V to 3,6V by 0,1V step
LED SENSOR	
Flash rate	Supports any meters LED flashing up to 500 pulses per second
POWER	
Power supply	3,6V / 3600mAh lithium battery
Autonomy within a +10°C to +25°C temperature range	12 years when measuring and transmitting 1 time per day 8 years when measuring 1 time per hour and transmitting 1 time per day
INTERFACE	
LED Indicator	3 LEDs for Configuration and Network pairing
Magnetic Switch	Reset, ON/OFF
MECHANICAL FEATURES	
Dimension (mm)	84x82x85
IP Class	IP55
Mounting	Optical probe attachment either by magnets or by Velcro Cable-length is approx. 0.5m
ENVIRONMENTAL	
Operating temperature (°C)	-20 / +50
Storage temperature (°C)	-10 / +60
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
50-70-071	FLASH'O with sensor - mounted in factory with 0.5m cable