FLASH'O

LoRaWAN

FLASH'O is a LoRaWAN® meter interface that transmits the accumulated number of LED flashes from any pulse meter: 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
- Battery autonomy up to 12 years
- Up to 500 pulses/second Flash LED rate counting

QUALITY & RELIABILITY

- RED, RoHS

The Class A LoRaWAN® Flash'O from 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 pulses 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. The cable length is approximately 0.5m.

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

Powered by a 3.6V lithium battery, the autonomy in data compressed mode is up to 12 years when measuring and transmitting data once per day. The autonomy is reduced to 8 years with 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 smart IoT devices to suit all remote reading and data collection solutions.

WATTECO is a LoRa Alliance® member.

FLASH'O

TECHNICAL DATA

RADIOFREQUENCY	Frequency (MHz)	Transmit Power (dBm)	Receiver Sensitivity (dBm)
	EU: 863-870	+14	-140

FIRMWARE	
Protocol	LoRaWAN®, Class A.
Activation method	Activation by Personalization (ABP) or Over-The-Air Activation (OTAA)
Data encryption	AES128
Application layer	ZCL (ZigBee Cluster Library) – to be interpreted by the remote server
Measurements & Transmission cycles	Configurable from 10 minutes to 24 hours
Data compression	Yes (differential coding)

LED SENSOR	
Flash Rate	Up to 500 pulses per second

POWER SUPPLY	
Voltage	3.6V / 3600mAh – Replaceable lithium battery
Autonomy	Up to 12 years with 1 measurement transmitted every day Up to 8 years with 1 measurement/hour and 1 transmission/day

INTERFACE	
NFC Tag	Product code, serial number, batch number
LED indicator	3 LEDs for configuration and network pairing
Magnetic switch	Reset, ON/OFF

ENCLOSURE	Size (mm)	Fastenings	IP rating
	92 x 92 x 56	Supplied screws and anchors. Optical probe attachment either by magnets or by Velcro. Cable length is approx. 0.5m	IP55

ENVIRONMENT	Operating temperature (°C)	Storage conditions
	-20°C to +50°C	+10°C to +30°C +20%rH to +60%rH

DIRECTIVES & STANDARD
Radio Equipment Directive 2014/53/EU, RoHS

CE ☒ RoHS 2011/65/EU ✓

PRODUCT NUMBER

REFERENCE	DESCRIPTION
50-70-071	LoRaWAN® FLASH'O Sensor

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