

A rugged, reliable battery-powered data logger to monitor the pulse of any meter.

SUMS Pulse continuously counts pulse, periodically stores meter indexes and sends the data to the SUMS Portal or any IoT platform using MQTTS or LwM2M.

- ✦ **Global cellular compatibility** (NB-IoT, LTE-M) with excellent indoor coverage.
- ✦ **Multi-platform integration** via LwM2M 1.1 or MQTT/MQTTS.
- ✦ **2 configurable pulse inputs:** connect 1 or 2 meters / pulse output devices (dry contact, REED, S0, open collector).
- ✦ **Supports 2-wire / 3-wire / 4-wire / 5-wire metering**, including flow direction / reverse flow use cases.
- ✦ **Fraud/tamper wire cut detection** with configurable sampling and threshold.
- ✦ **Fast local setup & diagnostics** with the IoT Configurator NB-IoT/LTE-M mobile app via NFC (before or after deployment).
- ✦ **Historisation & buffering:** batch transmissions for better battery life / lower data, plus data protection during outages (up to 800/400/300/400 stored values depending on meter type)



Reliable. Secure. Energy-optimised.

- ✦ **>15 years battery life** (depending on network & application configuration)
- ✦ **Acquisition time scheduling** (first sampling at a chosen UTC hh:mm)
- ✦ **Token-protected NFC access** (EN 18031-1) for controlled local operations

Available with fly lead and 5-pin Amphenol connector, if required.

TECHNICAL SPECIFICATIONS

Mechanical Specifications		
Weight	175 g (battery included)	
Dimensions	200 x 63.5 x 34 mm	
Enclosure	IP68, EMERGEM PC 8731HH grey resin (casing), EMERGEM PC 8430-15 transparent resin (sole)	
Mounting	DIN Rail, Pipe, Wall, Clamp	
Operating Conditions		
Operating temperature	-25°C / +70°C	
Humidity	0 to 85% RH (non-condensing)	
Device Power Supply		
Battery	Replaceable FANSO Li-SOCl ₂ , dual battery pack. Capacity: 8000 mAh + 38 mAh	
Expected Battery Life	For 24 messages per day: > 15 years on NB-IoT, > 15 years on LTE-M	
Update		
Applicative configuration	Setup via NFC using "IoT Configurator NB-IoT/LTE-M" (Android/iOS), or remotely (LwM2M protocol)	
Firmware	Locally via NFC, and remotely via FOTA with LwM2M	
Networks, Protocols		
SIM card	Nano SIM 4FF Class C (1.8V)	
Module	Nordic nRF9151	
Cellular standard	3GPP LTE Version 14	
Cellular IoT networks	NB-IoT, LTE-Cat-M1	
NB-IoT Frequency bands	B1-B5, B8, B12, B13, B17, B19, B20, B25, B26, B28, B65, B66, B85, B106	
LTE-M Frequency bands	B1-B5, B8, B12, B13, B18, B19, B20, B25, B26, B28, B66, B85, B106	
Data transfer protocol	LwM2M, MQTT/s	
RF Characteristics	NB-IoT	LTE-Cat-M1
Max. transmit power	+23 dBm	+23 dBm
Sensitivity	>-108 dBm, -113 dBm typ	>-103 dBm, -107 dBm typ
Regulations and Certifications		
Standard	Directive 2014/53/UE (RED)	
Pulse Input		
Number of channels	2 configurable pulse inputs, with forward and reverse flow	
Equivalent input resistance	47 KΩ	
Input frequency	<100 Hz	
Type of compatible pulse output	S0, Dry contact, Open collector, Reed switch	

SUMS Pulse Logger is designed and Manufactured by Adeunis