

# GRIDMATE – LoRaWAN Electricity Monitoring Sensor for IoT integrators and end users

## General Description

Highly reliable precision metering sensor.

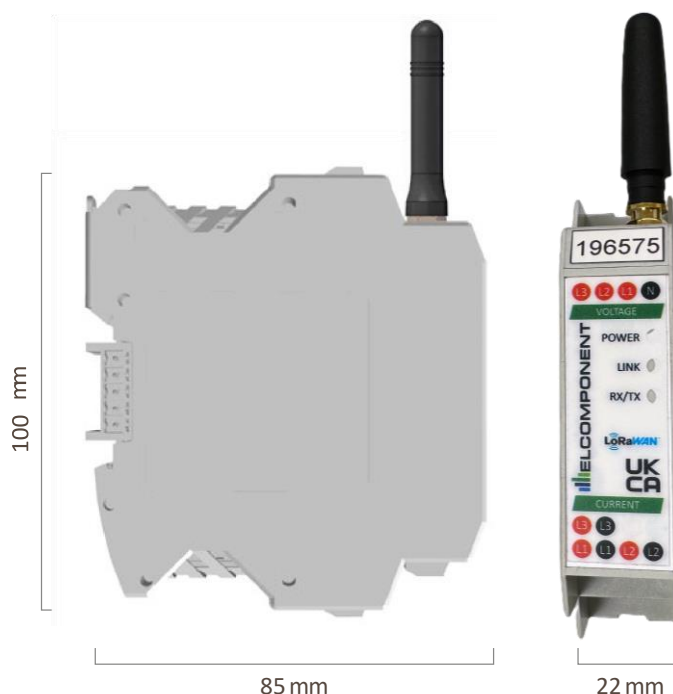
LoRaWAN communications for voltage, current, energy, reactive energy.

Ideal for submetering , machine monitoring and connection for IOT integrations

## Typical Applications

- General Energy Management
- Production Machine Monitoring
- Micro Grid
- Automation Monitoring
- Battery energy storage

## Dimensions



## Specifications

Connection	Voltage	4-wire, 3-element (3P4W)
	Current	Split core current transformers (Rogowski coil version on demand)
Voltage	Nominal working voltage	3x230/400 V
	Working voltage range	0.5.U <sub>n</sub> ... 1.15.U <sub>n</sub>
	Nominal frequency	50 Hz
Current*	Nominal current, I <sub>n</sub>	40A; 200A
	Max current, I <sub>max</sub>	400A; 2000A (5000A upon request)
	Min current, I <sub>min</sub>	0.05.I <sub>n</sub>
	Starting current, I <sub>st</sub>	0.002.I <sub>n</sub> <i>* switchable range</i>
Registered parameters	Voltage	RMS
	Current	RMS, max instantaneous value
	Active power	By phase, total
	Reactive power	By phase
	Apparent power	By phase, total
	Power factor	Absolute value, sign, inductive / capacitive
	Active energy	By phase, total, direction, load profile
Conformity	Certification	CE, UL 61010-1 (Rogowski coils)
	Precision class	B (according to EN 50470-3)
Intrinsic consumption	Voltage circuits	5 VA
	Current circuits	-
Data transfer	Interface	LoRaWAN 868/915 MHz
	Data type	Measurements, time synchronisation, diagnostic / configuration
Physical	Dimensions (LxWxH)	100 x 85 x 22 mm
	Weight	150 g
	Mounting	On 35 mm DIN-rail
	Enclosure	Polyamide plastic, UL94-V0
	External connections	Spring type or screw connectors
Operating conditions	IP protection class	IP40
	Working temperature	-40°C to +70°C