



Critical Things®



EkkoCT

Wireless Current Measurement Sensor



Track AC current consumption in real-time with EkkoCT Wireless.



EkkoCT is a wireless interface for up to three standard current transformers – allowing low-cost, real-time AC current measurement from 1A to 1000A.



Low-cost wireless current monitoring with EkkoCT

EkkoCT is a wireless current monitoring device that accepts up to three standard 333 mV output current transformers rated between 1A and 1000A. Thanks to its low-cost and simple installation, EkkoCT provides a rapid way of capturing power consumption trends, and enables power monitoring to be implemented where the costs of full power metering were previously prohibitive. This is particularly relevant where EkkoSoft® Critical is being used as part of an energy optimisation project, and fine-grained power usage benchmarks are required.

Current values are measured in real-time and transmitted in standard Critical Things® format for use by EkkoSoft Critical, where this current data can be combined with representative power factor and voltage information to enable an indication of power consumption.

In addition, EkkoCT can provide support up to two wired temperature and humidity sensors and has an opto-isolated 12-24V AC/DC input. These can be used to gather additional data on the operating condition of power distribution hardware.

EkkoCT transmits measured data at intervals between 30 seconds and 10 minutes. Data can either be transmitted as instantaneous values, or as the average from multiple measurements spaced evenly throughout the transmit interval. Averaging data over multiple measurements ensures that any changes to measured values between transmissions are captured. EkkoCT is housed in a standard DIN rail mount enclosure and can be powered by an internal battery or from an external 12-24V AC or DC supply.



Secure
128-bit AES
encryption



EkkoSoft direct
mode for Edge
support



Integration with
existing 3rd
party systems



Comprehensive integration
capabilities for complete
data center coverage



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Parameter	Specification
Operating temperature range	0°C to 40°C (32°F to 104°F)
Operating humidity range	5% to 95% RH
Measuring temperature range (with optional external sensors)	0°C to 60°C (32°F to 140°F)
Measuring humidity range (with optional external sensors)	0% to 100% RH
Temperature accuracy	±0.2°C typical (±0.4°F)
Relative humidity accuracy	±2% typical
RF data link	GFSK 250bit/s 868.3MHz (ES-CT-10) or 923MHz (FS-CT-10)
Operating range (from EkkoHub)	> 20m (21yds)
Power Supply	12V to 24V AC or DC or internal battery
Internal battery (if not powered externally)	Replaceable LS14500 AA size Lithium Thionyl Chloride
Battery life	> 3 years (transmitting once every two minutes an average of measurements at 30s intervals)
Current transformer inputs	Compatible with 333mV output current transformers rated between 1A and 1000A
Housing	ABS 70mm wide (4 DIN), 74mm high, 46mm deep (2.8"x2.9"x1.8") (53.5mm/2.1" including DIN rail)
Sensors	30mm (1.2") diameter, 10mm (0.4") deep, supplied with 3m (118") cable
Antenna connection	SMA female connector
Sensor, power and CT connections	Screw terminals
Core regulatory approvals	Radio - EN 300 220-2 V3.1.1, FCC CFR 47 Part 15C, ISED RSS-247 EMC - EN 61326-2-1, EN 55032, EN 301489-3, FCC CFR 47 Parts 15.107 and 15.109 Safety - Safety - IEC 62368
Approved countries	Canada, European Union, UK, USA.



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www.ekkosense.com/demo | +44 (0) 115 678 1234