

novaX



N8-CT101

Smart Current Transformer

N8-CT101 is a LoRaWAN® Smart Current Transformer for energy monitoring and consumption analysis. It offers multiple current ranges, real-time threshold alarms, and a compact detachable clamp design for quick and safe installation without de-energizing. Compatible with LoRaWAN® gateways and platform solution, enabling remote monitoring via web-based application. N8-CT101 is ideal for smart buildings, machine failure detection, and energy management applications.

FEATURES

- Report RMS current and accumulated data with high accuracy and a sampling frequency of up to 3.3 kHz.
- Detachable and non-invasive clamp design ensures safe and easy installation without de-energizing.
- Self-powered via induced current.
- Equipped with LED indicators for status and alarm notifications.
- Real-time monitoring with a sampling rate of up to 1 second and support for Firmware Update Over the Air (FUOTA).

SPECIFICATIONS

	N8-CT101
Electrical Measurement	
Detection Parameter	RMS Current
Sampling Frequency	3.3 kHz
Working Frequency	50~60 Hz
Rated Primary Current	100 A _{rms}
Rated Secondary Current	100 mA _{rms}
Minimum Reporting Current	6A _{rms} (1min Interval), 4A _{rms} (10min Interval)
Accuracy	±1 % (>5A _{rms}), ±3 % (≤ 5A _{rms})
Resolution	1 mA
Wireless Transmission	
Protocol	LoRaWAN®
Antenna Connector	1 × 50 Ω SMA Connector (Center PIN: SMA Female)
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4
Tx Power	16 dBm (868 MHz)/22 dBm (915 MHz)/19 dBm (470 MHz)

Sensitivity	-137 dBm
Mode	OTAA/ABP Class A
Others	
Button	1 × Reboot Button
LED Indicator	1 × Status/Alarm Indicator
Port	1 × USB Type-C for Power Supply, Console or Cable Temperature Sensor Connection
Configuration	USB Type-C or Downlink
Physical Characteristics	
Power Supply	Induced current power supply or 5V via USB Type-C
Insulation Voltage	2.5kV _{ac} (r.m.s)(1mA/1min)
Color & Material	Blue, PBT+PC (UL94 V0)
Extension Cable Length	1 m
Operating Temperature	-20°C~70°C (-4°F~158°F)
Storage Temperature	-25°C~80°C (-13°F~176°F)
Relative Humidity	≤ 95% (Non-condensing)
Ingress Protection	IP30
Dimension	86.5 × 31 × 37.4 mm (3.4 × 1.22 × 1.47 in); Wire Hole: Ø 16mm (Ø 0.63in)
Installation	CT Clamp: Suspended on the Testing Conductor
Approvals	CE, FCC, UL508