

Smart Current Transformer

Featuring LoRaWAN®

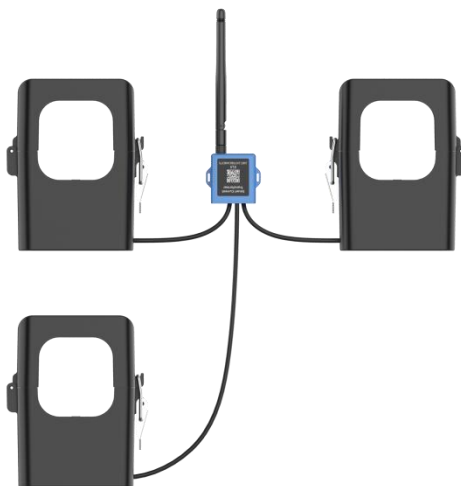
CT3xx



◆ Introduction

CT3xx is a LoRaWAN® Smart Current Transformer for monitoring energy consumption and analyzing usage remotely. CT3xx provides multiple current options to suit energy monitoring and supports sending threshold alarms. Its compact size enables quick and safe installation in any indoor space without de-energizing facilities, thereby simplifying the installation and saving costs. Compliant with Milesight LoRaWAN® gateway and Milesight Development Platform solution, CT3xx can be conveniently monitored via webpage remotely.

CT3xx is widely used for energy monitoring in smart buildings, machine failure detection and prevention, etc.



◆ Features

- Report the RMS current and accumulated current data by minutes
- High measuring accuracy with a sampling frequency of up to 3.3 kHz
- Self-powered, free from batteries or external wires
- Utilize a sampling rate of up to 1s for real-time monitoring and quick alarm response
- Non-invasive clamp design ensures easy and safe installation without the need for power de-energizing
- Equipped with LED indicator to indicate working status and alarms
- Support external wire temperature sensor for cable temperature measurement
- Enable simultaneous detection of three phases with a significantly wide optional detection range of either 500A or 1000A
- Compliant with standard LoRaWAN® gateways and network servers
- Compliant with Milesight Development Platform

◆ Specifications

Model	CT305	CT310
Electrical Measurement		
Detection Parameter	RMS Current	
Sampling Frequency	3.3 kHz	
Working Frequency	50~60 Hz	
Rated Primary Current	500 A _{rms}	1000 A _{rms}
Rated Secondary Current	150mA	
Start Current	30 A _{rms}	60 A _{rms}
Accuracy	±1 %	
Resolution	1 mA	
Temperature Sensor	Sensor type: 1 × NTC Sensor Measuring range: -20°C ~ 100°C Measuring accuracy: ±1 %	
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)/20 dBm (915 MHz)/19 dBm (470 MHz)	
Sensitivity	-137dBm	

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	
Insulation Voltage	3kV _{ac} (r.m.s)(1mA/1min)	
Color/ Material	Blue, PBT+PC (UL94 V0)	
Cable Length	1m	
Operating Temperature	Transceiver: -20°C~70°C (-4°F~158°F) CT Clamp: -40°C~55°C (-40°F~131°F)	
Storage Temperature	Transceiver: -25°C~80°C (-13°F~176°F) CT Clamp: -40°C~55°C (-40°F~131°F)	
Relative Humidity	≤ 95% (Non-condensing)	
Ingress Protection	IP30	
Dimensions	Transceiver: 38 × 39.7 × 16 mm (1.5 × 1.56 × 0.63 in) CT Clamp: 65.52 × 90 × 43 mm (2.58 × 3.54 × 1.69 in) Wire Hole: Φ 36.6 mm (Φ 1.44 in)	Transceiver: 38 × 39.7 × 16 mm (1.5 × 1.56 × 0.63 in) CT Clamp: 97.9 × 119 × 60mm (3.85 × 4.69 × 2.36 in) Wire Hole: Φ 51 mm (Φ 2.01 in)
Weight	Transceiver: 13.05 g Per CT Clamp: 276.75 g	Transceiver: 13.05 g Per CT Clamp: 855.55 g
Installation	Transceiver: Cable-tie Mounting (under integrated mode) CT Clamp: Suspended on the Testing Conductor	