

Smart Current Transformer

Featuring LoRaWAN®

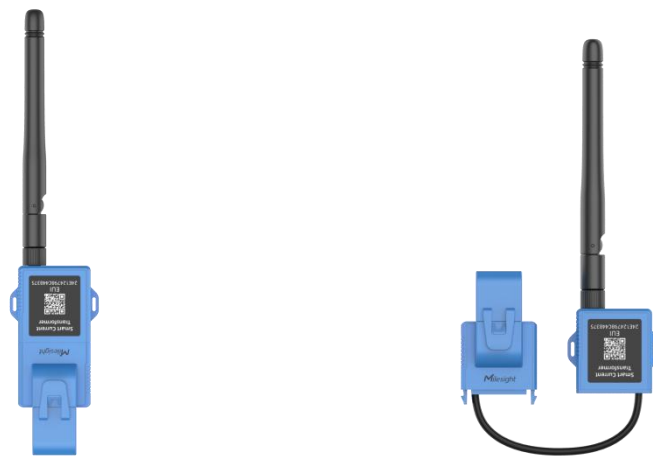
CT10x



◆ Introduction

CT10x is a LoRaWAN® Smart Current Transformer for monitoring the energy and analyzing consumption remotely. CT10x provides multiple current options to suit energy monitoring and support sending threshold alarms. CT10x is detachable, the compact size and clamp design allow it to be installed in any indoor space quickly and safely without de-energizing a facility, simplifying the installation and saving the cost. Compliant with Milesight LoRaWAN® gateway and Milesight IoT Cloud solution, CT10x can be monitored via webpage or mobile App remotely.

CT10x is widely used for energy motoring of smart buildings, machine failure detection and prevention, etc.



Flexible Installation with Detachable Design

◆ 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
- Compact size allows for installation in narrow scenarios
- Support flexible detachable design to accommodate various installation environments
- 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 to connect to a temperature sensor via USB for cable temperature measurement
- Compliant with standard LoRaWAN® gateways and network servers
- Compliant with Milesight IoT Cloud and Milesight Development Platform

◆ Specifications

Model	CT101	CT103
Electrical Measurement		
Detection Parameter	RMS Current	
Sampling Frequency	3.3 kHz	
Working Frequency	50~60 Hz	
Rated Primary Current	100 A _{rms}	250 A _{rms}
Transformer Ratio	1000: 1	2000: 1
Start Current*	1 A _{rms}	2 A _{rms}
Accuracy	±1 % (>5A _{rms}), ±3 % (≤ 5A _{rms})	
Resolution	1 mA	
Temperature Sensor	Sensor type: NTC 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)/22 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	2.5kV _{ac} (r.m.s)(1mA/1min)
Color/ Material	Blue, PBT+PC (UL94 V0)
Extension Cable Length	1m
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
Dimensions	86.5 × 31 × 37.4 mm (3.4 × 1.22 × 1.47 in) Wire Hole: Φ 16 mm (Φ 0.63 in)
Weight	85.65 g
Installation	CT Clamp: Suspended on the Testing Conductor Transceiver: Cable-tie Mounting (under integrated mode)

* The minimum input current for device to collect and transfer data.

