

## Combined current transformer

### CTD4511-2

#### 1. Introduction

This product is a combined current transformer that can simultaneously detect lightning current and AC high current. The two-way current inputs and outputs are completely isolated, with high isolation voltage. The product is safe and reliable, and the signal is electromagnetically isolated, which makes the output signal and the input signal have a linear relationship. The product has the advantages of high precision, fast response and simple installation. It can be widely used in real-time detection/monitoring of lightning current and AC high current signals, computer field data acquisition, industrial control, PLC measurement and control and other automatic control systems.

Features:

**Combined measurement:** the product input current is a combination of lightning current and AC high current probe, which can detect lightning current and AC high current at the same time;

**Wide input signal:**

The lightning current input signal measuring range is 100A~50 KA;

AC high current input signal measuring range is 0.1A~1000A;

**High precision, low temperature drift:** Linearity and long-term stability are guaranteed to be within the accuracy range;

**Easy to install:** Standard rail mounting and screw mounting;

#### 2. Case style



Figure 1, product shape

#### 3. Part number

**CTD4511-2**

#### 4. Specifications

\* Input lightning current range: 100A~50KA;

Input AC high current range:0.1A~1000A;

\* Output range ratio:

Lightning current output ratio: 100A/3mV;

AC high current output ratio: 1000A/200mA;

\* Accuracy level:

Lightning current detection accuracy: 10%;

AC high current detection accuracy: 0.5%;

\* load capacity:

Lightning current output load  $\geq 1M\Omega$ ;

AC high current load  $\leq 50\Omega$ (rated voltage output  $< 10V$ );

\* Temperature drift:  $\leq 200\text{ppm}/^\circ\text{C}$

\* Isolation withstand voltage:

Between the input signal and the output signal, the isolation withstand voltage is 10KVDC, the leakage current is less than 1mA, and the duration is 60 seconds;

\* Response time:  $\leq 50$  Us;

\* Working environment: temperature:  $-20\sim 70^\circ\text{C}$ ; humidity:  $\leq 70\%$  (no dew) ;

#### 5. Product wiring

Lightning current output lead: red lead + yellow lead.

AC high current output lead: red lead + black lead.

#### 6. Installations

Product installation dimensions are shown in Figure 3 (in mm).

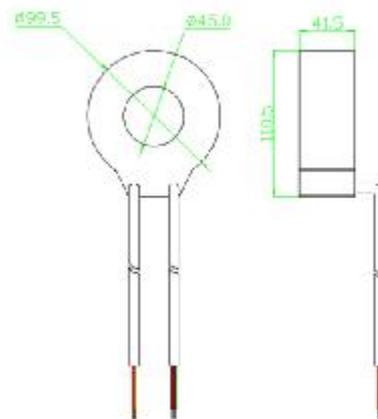


Figure 2, product installation diagram

#### 7. Use of the product

1. The transducer has been calibrated according to the "Product Standards" before delivery, and it can be energized after the wiring is correct.

2. The transducer should only be used in environments having no static electricity, excessive dust, corrosive or explosive gases.

#### 8. Notes

1. The transducer is an integrated structure that is not removable and should be protected from collisions and drops.
2. When the transducer is used in an environment with strong magnetic interference, please pay attention to the shielding of the input line, and the output signal line should be as short as possible. For centralized installation, the minimum installation interval should not be less than 10mm.
3. Only use the valid terminals of the transmitter;
4. When the transducer input and output lines are exposed to extreme outdoor conditions, lightning protection measures must be taken.
5. Do not damage or modify the label or logo of the product. Do not disassemble or modify the transducer. Otherwise, the company will no longer provide “three guarantees” (including replacement, return, repair) for the product.
6. The extreme endurance temperature of the transducer casing is +70 °C, which will be deformed when baked at high temperature, which will affect the performance of the product. Do not use or store the product near heat sources. Do not put the product in a high temperature box for baking.