

ZN23101 Current Probe - Product Datasheet

Manufacturer: Beijing Daze Technology Co., Ltd.



1. Product Overview

Model: ZN23101
Type: Current Probe
Frequency Range: 0.009MHz – 100MHz

The ZN23101 current probe is used to measure conducted interference signals propagating along wires or cables in the frequency range of 0.009MHz to 100MHz. It is ideal for applications where it is not possible to insert an artificial mains network, especially when the measured current is large, and the source acts as a current generator. The probe can be used without disconnecting the wire, and is a key device in EMC measurements for interference current testing.

2. Technical Specifications

Parameter	Specification
Frequency Range	0.009MHz – 100MHz
Transfer Impedance	0.1 – 10Ω (9kHz – 60MHz)
Max Combined DC/AC Current	<50A
Measurement Error	< ±2dB (terminated with 50Ω)
Measurement Range (with ZN3950C/ZN3951B)	1μA – 0.1A
Dimensions (D × L × H)	75mm × 80mm × 26mm
Inner Diameter	Φ14mm
Weight	0.16kg
Operating Temperature	0°C – 40°C
Storage Temperature	-40°C – 60°C
Operating Humidity	20 – 90% RH
Storage Humidity	≤90% RH
Atmospheric Pressure	860 – 1060mbar

3. Key Features

- **Wide Frequency Range:** Suitable for measuring interference currents in the 0.009MHz to 100MHz range.
 - **High Sensitivity:** Measures small interference currents without disconnecting cables.
 - **Durable Design:** Supports up to 50A combined AC or DC current during testing.
 - **Versatile Use:** Can be used for RF current sensitivity, magnetic field sensitivity, and standing wave measurements on coaxial cables and shielded wires.
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4. Measurement Method

The current probe connects to the interference measurement device using a 2-meter high-frequency cable with 50Ω impedance. It allows the measurement of high-frequency currents and electromagnetic leakage on coaxial and shielded cables. The interference current value is calculated using the following formula:

$$I_p(dB\mu A) = V_2 + Y_T$$

Where:

- V_2 is the RF voltage at the probe's output (measured by the interference measuring device).
 - Y_T is the transfer admittance (given by the calibration curve).
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5. Standard Accessories

Item	Quantity
ZN23101 Current Probe	1 unit
2m High-Frequency N-Type Cable	1 unit
N-BNC Adapter	1 unit
User Manual	1 copy
Certificate of Conformity	1 copy

6. Warranty

- **Warranty Period:** 18 months from the date of shipment, covering defects under normal usage and transportation conditions.

7. Product Photo



Contact Information:

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