

Product

CT6710 Current Probe

Headline

AC/DC multi-range current probe, 30 A / 50 MHz

Short Description

Hall sensor based zero-flux current probe suitable for capturing micro to very fast currents, wide bandwidth from DC to 50 MHz, measurable current from 200 μ A to 30 A in 3 ranges (500 mA, 5 A, 30 A), high signal-to-noise ratio, standard BNC oscilloscope connectivity, built-in overload protection

Banner Specs

- DC to 50 MHz bandwidth
- 200 μ A to 30 A measurable current
- 3 current ranges (500 mA, 5 A, 30 A)
- Standard BNC output for all kind of oscilloscopes

Applications

- Power supplies (switching and linear)
- Semiconductor devices (SCRs, IGBTs, MOSFETs, CMOS, BJTs)
- Power inverters/converters
- Industrial/consumer electronics
- Mobile communications (phone, satellite, relay stations)
- Motor drives
- Mobility systems (EVs, electric trains, avionics)

Product Description

The HIOKI CT6710 current sensor is a high-performance and high-sensitivity 3-range current probe designed for use with advanced oscilloscopes, memory recorders like HIOKI's MR6000 or other data acquisition systems. Engineered to deliver exceptional accuracy and versatility, the CT6710 offers a wide DC to 50 MHz bandwidth with the ability to measure currents from 200 μ A to 30 A.

With three selectable current ranges – 30 A, 5 A, and 500 mA – the CT6710 offers an expansive current measurement spectrum, enabling users to accurately monitor and analyze various current levels from micro currents to large transient surges. The easy-to-use range selection feature allows for quick adjustments to match the specific measurement needs, whether you are capturing inrush currents or observing minute currents in low-energy devices.

The CT6710 boasts a high signal-to-noise ratio, ensuring clear and precise waveform observations without the need to rely on oscilloscope filters or averaging functions. The 10 V/A output rate in the 500-mA range significantly enhances the voltage sensitivity of connected oscilloscopes, allowing precise detection of weak signals down to 100 μ A per division and ensuring high accuracy even when measuring smallest or noise-affected currents.

Device protection also is a core aspect of the CT6710's design, featuring a microchip-controlled system that monitors the temperature of the measurement circuit. In the event of overheating, the power supply to the circuit is automatically disconnected to prevent damage to the device. Additionally, a mechanism ensures that current spikes do not harm the sensor, and an LED indicator warns the user if the input current is too high.

The CT6710 outputs the measurement signal through a standard BNC connector at a high impedance level, allowing direct connection to a wide range of oscilloscopes. For best results, especially for precise signal analysis, it is recommended to use an oscilloscope with a high-resolution ADC system or a recording system like HIOKI's MR6000.

Overall, the HIOKI CT6710 current probe is a comprehensive solution for a wide range of current measurement applications. It offers essential features that ensure precision, safety, and efficiency in a compact and robust design. Whether you are working with high-speed or micro currents, the CT6710 is the tool that guarantees accurate and reliable measurements.

What's in the box

- CT6710 with hard shell case
- Instruction manual

Related Products

- 3269 Power Supply
- CT6711 Current Probe
- CT6701 Current Probe
- CT6700 Current Probe
- 3273-50 Current Probe
- 3274 Current Probe
- 3275 Current Probe
- 3276 Current Probe
- MR6000 Memory Recorder

Version	Date	Author	Approved	Document changes
1.0	10.10.2024	KS	KS	First Release