

DC Coupled Current Probe

TCP202 Datasheet



TCP202

Features & Benefits

- Easy Current Measurements
- Probe Connects Directly to TDS Scope through TEKPROBE™ BNC Interface
- Split Core Construction for Easy Circuit Connection
- DC to 50 MHz Bandwidth
- 15 Amps DC + Peak AC Current
- 50 Amps Peak Pulse Current
- 500×10^{-6} Ampere-Sec Product
- Safety Certified

Applications

- Motor Drives
- Switching Power Supplies
- Disk Drive
- Electronic Ballasts
- Inverters
- Avionics

TCP202 DC Coupled Current Probe

When combined with a Tektronix TDS oscilloscope, the TCP202 enables users to make direct readout DC and AC current measurements, resulting in accurately displayed and recorded measurements.

The TCP202 is a general-purpose probe for displaying and measuring current in electronic circuits. It is ideal for power supply and motor drive design, and for device testing.

Recommended Oscilloscopes

All TDS3000C and TDS5000B Series oscilloscopes. Also operational with TDS500, TDS600, and TDS700 Series, recommended with use of calibration fixture (015-0672-50) for best accuracy.

For TCP202 operation with other TDS400, TDS500, TDS600, and TDS700 Series oscilloscopes, the scale factor will be correct but measurement will be indicated as V instead of A.

Increase the Accuracy of Your Current Measurements

The accuracy of the TCP202 AC/DC current probe is normally 3%. However, the accuracy may be improved to 1% when the probe is calibrated on certain TDS oscilloscope models using the optional Calibrator P/N 015-0672-50. This improved accuracy is available on the TDS500, TDS600, and TDS700 Series, however the optional calibrator is only functional with the TDS500, TDS600, or TDS700 Series oscilloscope calibrator pins. The calibration fixture is not required for TDS3000C and TDS5000B Series oscilloscopes.

Characteristics

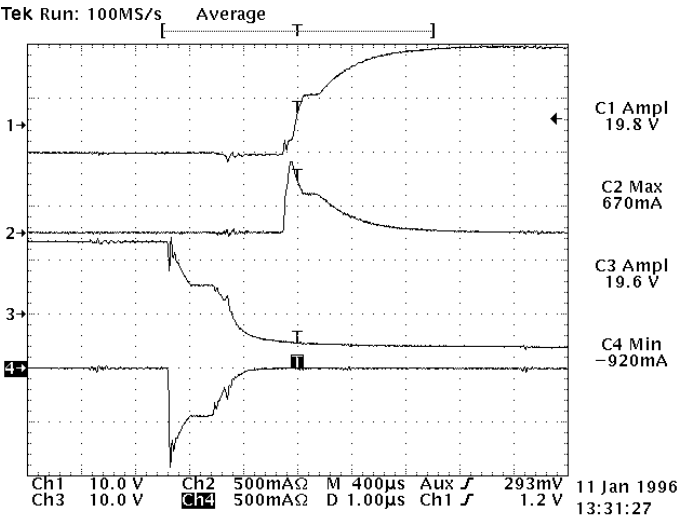
Characteristic	Description
Bandwidth	DC to 50 MHz
Max DC + Peak AC Current	15 A
Max Peak Pulse Current	50 A
Minimum Sensitivity	10 mA/div
DC Accuracy	±1% (with probe calibrator) ±3% (without probe calibrator)
Max Bare-wire Voltage	300 V (CAT I)

Typical Characteristics

Characteristic	Description
Insertion Impedance	0.002 Ω at 1 kHz 0.1 Ω at 5 MHz
Propagation Delay	17 ns
Max Conductor Diameter	3.8 mm (0.15 in.)
Electrostatic Immunity	(per IEC 801-2) >8 kV
Ampere-Sec Product	500 × 10 ⁻⁶ Amp × Sec
Rise Time	≤7.0 ns

Physical Characteristics

Characteristic	Description
Weight	0.19 kg (0.44 lb.)
Cable Length	2.2 m (7.2 ft.)
Power Requirements	TCP202 is powered by the TDS oscilloscope through the TEKPROBE interface



Safety

UL 3111-1, CSA1010.1, EN61010-1, IEC61010-1, EN61010-2-032, IEC61010-2-032

Ordering Information

TCP202

DC Coupled Current Probe.
Includes: Instruction manual (070-9542-xx), reference manual (070-9543-xx).

Recommended Accessories

Accessory	Description
015-0672-50	Current Loop Calibrator for TDS500, TDS600, and TDS700 Series oscilloscopes

Related Products

Product	Description
1103	TEKPROBE® Power Supply (for scopes without TEKPROBE BNC interfaces)
ADA400A	Differential Preamplifier
P5205	High-voltage Differential Probe
P5210	High-voltage Differential Probe

Service Options

Option	Description
Opt. SILV400	Standard Warranty Extended to 5 Years



Tektronix is registered to ISO 9001 and ISO 14001 by SRI Quality System Registrar.

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For Further Information. Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology. Please visit www.tektronix.com



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