

DC Coupled Current Probe

TCP202 Data Sheet



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.

Characteristics

- 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

- 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

- 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.

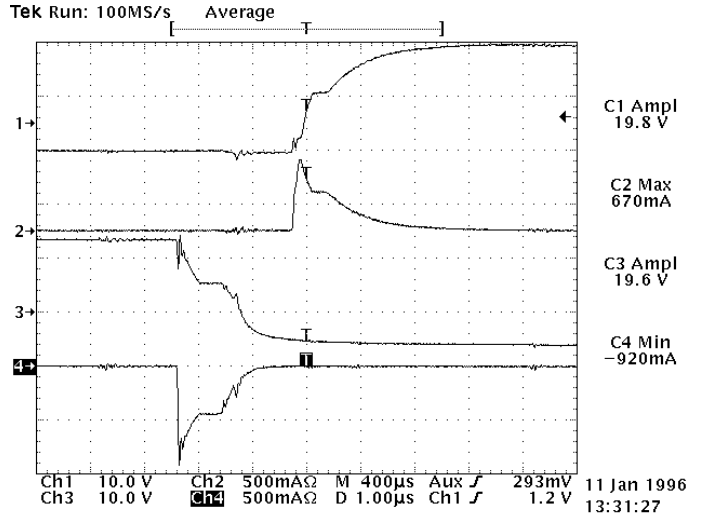
Recommended Oscilloscopes

TDS520B; TDS520C; TDS520D; TDS540B; TDS540C; TDS540D; TDS580C; TDS580D; TDS654C, TDS680C, TDS684C, TDS694C, TDS724A; TDS724C; TDS724D; TDS744A (S/N B040100 or higher); TDS754A; TDS754C; TDS754D; TDS784A (S/N B040100 or higher); TDS784C; TDS784D; TDS794D; TDS3000 Series; TDS3000B Series, TDS5000 Series; TDS5000B Series; TDS6000 Series and TDS6000B Series with TCA-BNC adapter; TDS7000 Series and TDS7000B Series with TCA-BNC adapter.

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 TDS Oscilloscopes Series TDS500, TDS600, and TDS700, however the optional calibrator is only functional with the TDS500, TDS600, or TDS700 Series oscilloscope calibrator pins.

Ordering Information

TCP202

DC Coupled Current Probe.

Includes: Instruction manual (070-9542-xx), reference manual (070-9543-xx).

Recommended Accessories

Probe Calibrator – (015-0672-50) Use with TDS510A, TDS520B, TDS520C, TDS520D, TDS540B, TDS540C, TDS540D, TDS580D, TDS654C, TDS680C, TDS684C, TDS694C, TDS724A, TDS724C, TDS724D, TDS754A, TDS754C, TDS754D, TDS784A, TDS784C, TDS784D, TDS794D for improved accuracy.

Related Products

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



Product(s) are manufactured in ISO registered facilities.