

ABN 43 064 478 842

231 osborne avenue clayton south, vic 3169
PO box 1548, clayton south, vic 3169
t 03 9265 7400 f 03 9558 0875
freecall 1800 680 680

www.tmgtestequipment.com.au

# Test & Measurement

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# **Complimentary Reference Material**

This PDF has been made available as a complimentary service for you to assist in evaluating this model for your testing requirements.

TMG offers a wide range of test equipment solutions, from renting short to long term, buying refurbished and purchasing new. Financing options, such as Financial Rental, and Leasing are also available on application.

TMG will assist if you are unsure whether this model will suit your requirements.

Call TMG if you need to organise repair and/or calibrate your unit.

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# **DC Coupled Current Probe**

# ► TCP202



#### ► TCP202.

### **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.

#### ▶ Features & Benefits

Easy Current Measurements

Probe Connects Directly to TDS Scope Through TEKPROBE  $^{\text{TM}}$  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 x 10-6 Ampere-Sec Product

Safety Certified

### Applications

Motor Drives

Switching Power Supplies

Disk Drive

Electronic Ballasts

Inverters

Avionics



# 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 –  $0.002 \Omega$  at 1 kHz.  $0.1 \Omega$  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 x 10<sup>-6</sup> Amp\*Sec.

**Rise Time –** ≤7.0 ns.

#### **Physical Characteristics**

**Weight** - 0.19 kg (0.44 lbs.).

Cable Length - 2.2 m (7.2 ft.).

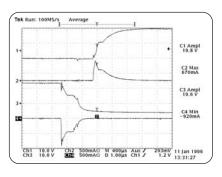
**Power Requirements –** TCP202 is powered by the TDS oscilloscope via the TEKPROBE™ interface.

#### 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 with TCA-BNC adapter; TDS6000 Series; TDS6000B Series with TCA-BNC adapter; TDS7000 Series; 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

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, TDS540D, TDS580D, TDS640B, TDS684C, TDS684C, TDS684C, TDS694C, TDS724A, TDS724C, TDS724D, TDS754A, TDS754C, TDS754D, TDS754D, TDS784D, TDS784

# **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.

#### Contact Tektronix:

ASEAN / Australasia / Pakistan (65) 6356 3900

**Austria** +43 2236 8092 262

Belgium +32 (2) 715 89 70

Brazil & South America 55 (11) 3741-8360

Canada 1 (800) 661-5625

**Central Europe & Greece** +43 2236 8092 301

 $\textbf{Denmark} \; +45\; 44\; 850\; 700$ 

Finland +358 (9) 4783 400

France & North Africa +33 (0) 1 69 86 80 34

**Germany** +49 (221) 94 77 400

**Hong Kong** (852) 2585-6688

India (91) 80-22275577

Italy +39 (02) 25086 1

Japan 81 (3) 6714-3010

Mexico, Central America & Caribbean 52 (55) 56666-333

The Netherlands +31 (0) 23 569 5555

Norway +47 22 07 07 00

**People's Republic of China** 86 (10) 6235 1230

Poland +48 (0) 22 521 53 40

 $\textbf{Republic of Korea} \ 82\ (2)\ 528\text{-}5299$ 

Russia, CIS & The Baltics +358 (9) 4783 400

**South Africa** +27 11 254 8360

**Spain** +34 (91) 372 6055

Sweden +46 8 477 6503/4

Taiwan 886 (2) 2722-9622

United Kingdom & Eire +44 (0) 1344 392400

**USA** 1 (800) 426-2200

USA (Export Sales) 1 (503) 627-1916

For other areas contact Tektronix, Inc. at: 1 (503) 627-7111

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Our most up-to-date product information is available at **www.tektronix.com** 

Product(s) are manufactured in ISO registered facilities.





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