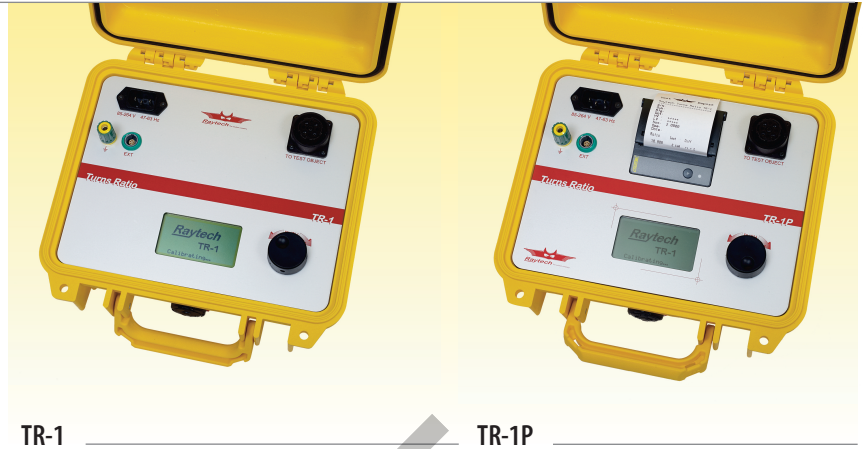## TR-1 / TR-1P: Fully Automatic, Single Phase Transformer Turns Ratio Meter

Features

Fully automatic, continuous operation system
System is housed in a rugged, lightweight, waterproof case
Rechargeable, battery-operated instrument
Rechargeable with line voltage, or an optional DC Car adapter
Reverse Polarity Test
Continuity Test
Test current up to 1A for CT testing
Internal storage of the last 50 test results
RS-232 interface with optional adapter
Pass / Fail Function
Save up to 16 Transformers for comparison
Performs over 1,000 measurements without recharging
Install the TinyFlashLoader software, and you will be able to
   update the firmware using the optional RS-232 Interface
   Cable Adapter (TinyFlashLoader software is free to download
   from our website – www.RaytechUSA.com)
TR-1P Model Unit houses a built-in printer
5-Year standard warranty

TR-1   TR-1P

Accuracy

Range	Accuracy in PT Mode (40V)	Accuracy in CT Mode (1...5V)	Resolution
0.8 … 100	±0.08% Rdg ±1 LSD	±0.08% Rdg ±1 LSD	5 Digits
101 … 4,000	±0.08% Rdg ±1 LSD		5 Digits

Current	Accuracy		Resolution
PT-Mode: 0 … 0.1A	±1mA		0.1mA
CT-Mode: 0 … 1A	±1mA		0.1mA

Specs

Size: **L:** 270 mm (10.62") **W:** 245 mm (9.68") **H:** 125 mm (4.87")
Weight: 3.2 kg (7.1 lbs.)
Input Power: 85 to 264 VAC, 47 … 63 Hz, 12 VDC (optional)
Battery: Lithium Ion 16.4V / 1.6Ah
Turns Ratio Range: 0.8 to 4,000
Output Voltage PT Mode: 40 VAC, 10 VAC, 5 VAC, 1 VAC
Temperature: **Operating:** −10°C to 60°C (14°F to 140°F); **Storage:** −20°C to 70°C (-4°F to 158°F)
See Instruction Manual for more parameters. Specifications subject to improvement at any time.

Output Voltage CT Mode: 1 … 5 VAC auto ranging
Panel Display: LCD Graphic with back light
Front Panel: Sealed, anodized with a multi-actuation rotary knob
Interface: RS-232 serial (with optional interface adapter)
Memory Storage: Internally stores 50 test results

Standard Accessories Included

H and X Lead Set – 5m (16 ft.)
Paper Refill for Panel-mount Printer – 5 rolls (with the TR-1P)
Cable Bag with Shoulder Strap

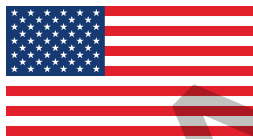Power Cord – 2.4m (8 ft.)
Ground Lead – 5m (16 ft.)

Instruction Manual
Certificate of Accuracy

Optional Items Available

1011N-05001: Red Extension Lead – 5m (16 ft.)
1002A-05023: Red Extension Lead Set (2) – 10m (32 ft.) each
1011N-23001: RS-232 Interface Cable Adapter

1011N-24002: 12VDC Automotive Adapter
1011N-15001: Annual Warranty Extension

Raytech is a world leader in the design and manufacture of precision electronic measuring instruments and systems. The unique design approach of the engineering team at Raytech has resulted in the development of highly regarded measuring instruments, which have set new standards in the electrical testing industry.

Our exceptional reputation for support and service is unmatched.

Raytech products are designed for many years of trouble-free use, which is why we can offer a **standard 5-year warranty** – guaranteeing the highest quality instrumentation available.

Raytech USA
118 S. 2nd Street
Perkasie, PA 18944
Tel: +267 404 2676
Email: Welcome@RaytechUSA.com
www.RaytechUSA.com

Raytech GmbH
Oberebenestrasse 11
5620 Bremgarten, Switzerland
Tel: +41 56 648 6010
Email: Welcome@Raytech.ch
www.Raytech.ch

Raytech