

## Automatic Transformer Observation System (ATOS): Create a custom system for any application

### Features

Minimizes cabling time, one time transformer connection for winding resistance and ratio

Different currents allowed at the same time on Primary, Secondary, & Tertiary

No precision loss

Modular system with:

- Up to three winding resistance meters
- One turns ratio meter, with or without a T-Rex
- Up to four multiplexers

Provides various rack options or build-on-site capabilities

Operate all instruments on a touch screen or by remote computer control

Control your tap changer with a powerful tap changer interface

Integrated Safety Unit provides fused electrical power, manages external interlocks, and provides a single interface for an external warning lamp

### Specs

Turn Ratio Accuracy: Up to 0.06%

Phase Relations: Any angle (not limited to 30° steps)

Winding Resistance Accuracy: Up to 0.1%  $\pm 0.05\mu\Omega$

Winding Resistance DC Supply: Up to 100A / 50V

Demagnetizing: Fully Automatic

Heat Run Test: Available on Winding Resistance

Case: Custom 19" Rack Shelf

Interface: USB

Remote Control: Individual software or by Raytech T-Base Pro software

Input Power: 88 to 264 VAC, 47 . . . 63 Hz, auto ranging

See Instruction Manual for the specific instrument for more parameters. Specifications subject to improvement at any time.

### Standard Accessories Included

10m cables

Various cable accessories

T-Base Pro software program

### Optional Items Available

The design of the ATOS system is determined by the customer's needs. Equipment to be used in the ATOS system can include combinations of the following equipment:

- TR-Mark III R 250V: Three Phase Transformer Turns Ratio Meter
- T-Rex R: Three Phase Test Voltage Option
- WR14 R: 15 Amp, 2-Channel Winding Resistance Meter with Core Demagnetization
- WR50-12R: 50 Amp, 2-Channel Winding Resistance Meter with Core Demagnetization
- WR50-13R: 50 Amp, 3-Channel Winding Resistance Meter with Core Demagnetization
- WR100-12R: 100 Amp, 2-Channel Winding Resistance Meter with Core Demagnetization
- WR100-13R: 100 Amp, 3-Channel Winding Resistance Meter with Core Demagnetization
- MUX R: Up to 100 Amp, 3-Channel Multiplexer for Transformer Testing with Core Demagnetization and Discharge
- ISU R: Integrated Safety Unit

Optional T-Base Software Add-ons available to automate the measuring process:

- T-Base Remote: Option for T-Base Pro that remotely controls Raytech test instruments
- T-Base Sequence: Option to T-Base Pro with Remote that performs complete measurements in a programmable measuring process
  - Define complete transformer test sequence
  - Free run testing with error alerts



ATOS

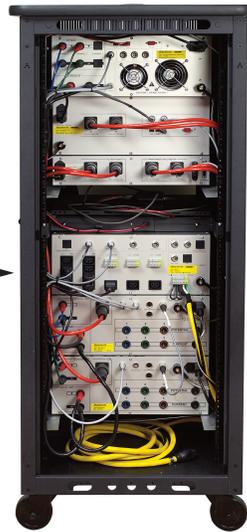
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### ISU R Integrated Safety Unit



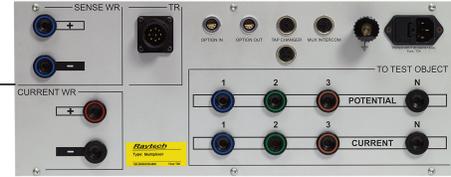
- Supplies Raytech devices with fused electrical power
- Manages external interlocks
- Provides a single interface for an external warning lamp

**Specs**  
 Size: L: 490 mm (19.3") W: 436 mm (17.2") H: 177 mm (7")  
 Rack Unit: 4U  
 Weight: 10.3 kg (22.7 lbs.)  
 Measuring Current: Up to 100 Amps  
 Input Power: 88 to 264 VAC,  
 47 ... 63 Hz, auto ranging  
 Front Panel: Sealed, anodized



Rear View

### MUX R Multiplexer Up to 100 Amps, 3 Channels, Demagnetization & Discharge

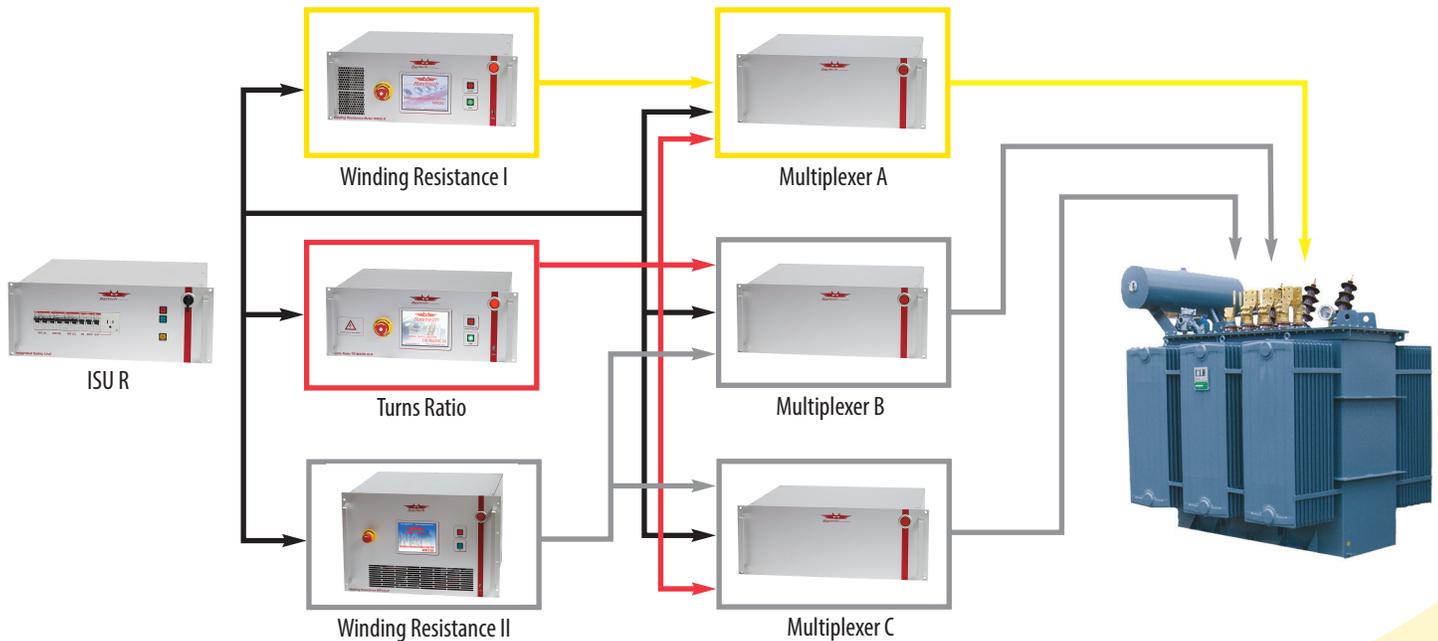


- Designed to drastically reduce cabling & increase test performance
- Controlled by a winding resistance meter's touch screen or by remote

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## One of many possible ATOS configurations

Whatever the application, there are many possibilities for integration. In this example the yellow outline shows the connection of the primary, and the grey outline shows the connection of secondary and tertiary windings.



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