



RT100

**Relay Tester
Secondary Injection Relay Test Set**

Secondary Injection Relay Tester

Introduction

Weis is a specialist company with over 40 years of experience in the commissioning, testing & maintenance of switchgear and power network fault monitoring within the Power Utility Industry.

The Relay Tester (RT100) is a Secondary Injection Test Set designed for the testing of protective relay equipment. This instrument is intended for use in high voltage substations and industrial environments.

Also available within our range of test equipment are Circuit Breaker Timing Test Sets (SA100, SA100R, SA100Rs or SA100s), Micro-Ohm Tester (MM100) and Power Supply (PS100).

The types of protection relay the portable relay test set (RT100) can be used to test include:



TYPE	IEEE No.
Synchronising Relay *	25
Under/Over Voltage	27/59
Directional Power Relay *	32
Field Relay	40
Reverse Phase Current *	46
Reverse Phase Voltage *	47
Incomplete Sequence	48
Overcurrent-Ground Fault Relay	50
Inverse Time Overcurrent Relay	51
Power Factor Relay *	55
Voltage Balance *	60
Ground Detection	64
Directional Overcurrent Relay *	67
Phase Angle Out-Of-Step Relay *	78
Automatic Re-Closing Devices *	79
Frequency Relay *	81
Pilot Wire Relay	85
Lockout Relay	86
Differential Relay *	87
Directional Voltage Relay *	91
Power Directional Relay *	92
Tripping Relay	94



* These relay tests should be done with a phase selector extension unit.

Specifications

OUTPUTS

AC Current:



0 to 10A range with the following characteristics:-

No-Load Voltage (min.): 80V

Full-Load Voltage (min.): 70V

Full-Load Current (max.): 10A

Time: 2 hours

Safety: Output transformer equipped with built-in temperature protection. Primary side protected by miniature circuit breakers.

0 to 25A range with the following characteristics:-

No-Load Voltage (min.): 24V

Full-Load Voltage (min.): 20V

Full-Load Current (max.): 25A

Time: 1 hour

Safety: Output transformer equipped with built-in temperature protection. Primary side protected by miniature circuit breakers.

0 to 50A (short term max. 300A peak) range with the following characteristics:-

No-Load Voltage (min.): 10V

Full-Load Voltage (min.): 2V

Full-Load Current (max.): 50A

Time: 1.5 minutes

Safety: Output transformer equipped with built-in temperature protection. Primary side protected by miniature circuit breakers.

AC/DC Voltage:

0 to 240V AC rated at 2A for 1 hour.

0 to 300V DC rated at 2A for 1 hour.

Auxiliary Voltage:

240V AC rated at 0.5A.

Fixed Voltage:

110V DC rated at 0.5A, 110V AC rated at 0.5A & 30V DC rated at 1A.

If the 110V DC & AC fixed outputs are used simultaneously the rating is 0.2A each.

Safety (Voltage):

Re-triggerable fuses used in all voltage outputs.

INPUTS

Digital:

2 x wet contacts and 1 x dry contact.

TIMER

Range:

0.000 to 999.999 seconds, auto-ranging.

Resolution:

1mSec.

Max. Testing Time:

999.999 seconds.

MEASUREMENTS

Readout:

Output parameters are displayed on a large backlit LCD display.

Auto-ranging if output is less than 10% of range.

Measured Quantities:

AC current output.

Timer.

Accuracy:

±0.5% of metering.

AC Measurement:

True RMS.

Set of Resistors:

0.5Ω (10A max.), 1Ω (5A max.), 25Ω (2A max.), 100Ω (0.7A max.) & 500Ω (0.3A max.).

OPERATING VOLTAGES

Prime Power:

230 or 115V AC ±15%, 50/60Hz.

ENVIRONMENTAL

Operating

Temperature:

-20°C to +70°C

Storage

Temperature:

-40°C to +70°C

MECHANICAL DETAILS

Weight:

10kg.

Carry Case:

Reinforced aluminium, 13.5" x 9.5" x 6" (340mm x 240mm x 150mm).





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