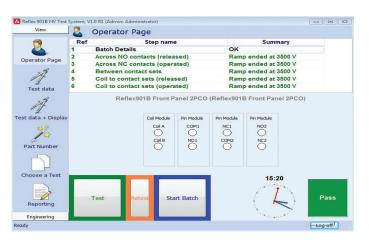


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REFLEX 901B – DWV, IR TEST SYSTEM

High Voltage Test





Reflex 901B high voltage test system offers AC and DC dielectric and leakage resistance testing of relays or other multi-pin passive devices. Breakdown testing up to 10 kV can be performed either as a high speed functional go / no-go test or as a ramp based qualification test.

Key Features

- High precision
- Optional integral PC compatible controller
- Simple and flexible software
- Expansion rack capability for high pin count devices
- Comprehensive software package with full data
 logging
- Dedicated floating relay coil power supplies
- Built-in functional test
- Front panel test points
- Test program compatibility with RT901B

Overview

A novel test architecture automates Breakdown (Hipot) and optionally Insulation Resistance (Leakage) testing of various combinations of device pins at up to 10 kV peak AC or DC. Expansion rack option for testing high pin counts.

The PC controller can be controlled remotely, for example when the Reflex 901B is used in a complex production line set up.

Menu-based Software

Test data files containing sequences of voltages, measurement conditions and voltage patterns are created, edited and run from within a simple menu based environment and can be run, re-tested, cycled or step-executed to enable fast development of a test program.

Max operating voltage	10 kV DC / 6.5 kV AC
Detector current range	0-1 mA
Device interface	SHV coaxial connectors
Safety	HV interlock, front panel cover
Dimensions	6U, 500 mm deep, 19" rack mounting

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Product Features

System architecture

The system comprises of a 6U high 19 inch rack, which is sub-divided into an internal 3U low voltage rack housing a PC interface and low leakage detector and a 6U card frame into which can be configured a selection of high voltage power supplies and switching multiplexers. The system is controlled using the supplied Artworks software running on a standard Windows™ based PC which may be internally or externally mounted.



Optional integrated PC

Easy to use software

The custom Artworks software allows test programs to be quickly generated from pre-written 'functional' or 'qualification' tests and can be run offline if required to allow for test program generation or report generation. The software test environment upgrades legacy test programs to allow for an easy migration for users of RT901B systems.

Self test

The system performs a comprehensive set of self-test checks at the time the system is switched on and the software initialised. Power rail and system temperature monitoring features are also measured along with basic system functionality.

Safety

All high voltage connections are located behind a protective panel for maximum operator safety. Provision for an external high voltage interlock is also provided.

Functional testing

High speed production line functional tests make a go/no-go device check by applying a programmed voltage to the specified terminals confirming that current levels and pulse widths are not exceeded.

Qualification testing

For detailed relay parameter analysis a qualification test can be used to establish the exact point of a "breakdown" event using a test voltage ramp.

Low leakage design

By careful attention to guarding and choice of components, the system achieves an inherently low level leakage performance that ensures consistent and reliable insulation resistance measurement. All H.V. connections are fully screened.

Floating coil power supplies

Dedicated floating coil power supplies allow single/dual coil relays to be energised whilst remaining at high voltage.

Front panel indicators / connectors

To ease test program de-bugging, front panel LEDs indicate detector device pin configurations and provide easily accessible key waveform monitoring outputs.

Remote control

The PC architecture includes remote access via an RS-232 port from a host controller when used in a more complex multi-tester production line environment. An optional 24 Volt logic level I/O card ASY5763 may also be used for device handler interfacing.

Flexible reporting

Data can be viewed, printed or exported to print or data log files. Supplied tools allow this data to be selected and inserted into a wide range of spread sheet and database packages.

On line help documentation

The Reflex 901B comes with a comprehensive set of on line documentation with user friendly context sensitive help.

Custom solutions

The architecture has been subdivided into modules which can be re-configured to provide custom solutions.

Hardware options list

Calibration kit

The calibration kit comprises of a cable set and an ASY5747 module which can be used to calibrate the measurement circuitry as required. The calibration module is compatible with other Reflex systems.

General Purpose Test Fixture GPTF

This test fixture provides an electrically safe environment for device testing at high voltage and with low levels of leakage. The device socket is mounted on a removable board which allows the system to be quickly re-configured for different device styles. Electrical interlocks ensure that maximum operator safety is maintained at all times. An optional mechanical interlock can also be provided to lock the protective cover during testing.



See also: General purpose interface, GPTF

