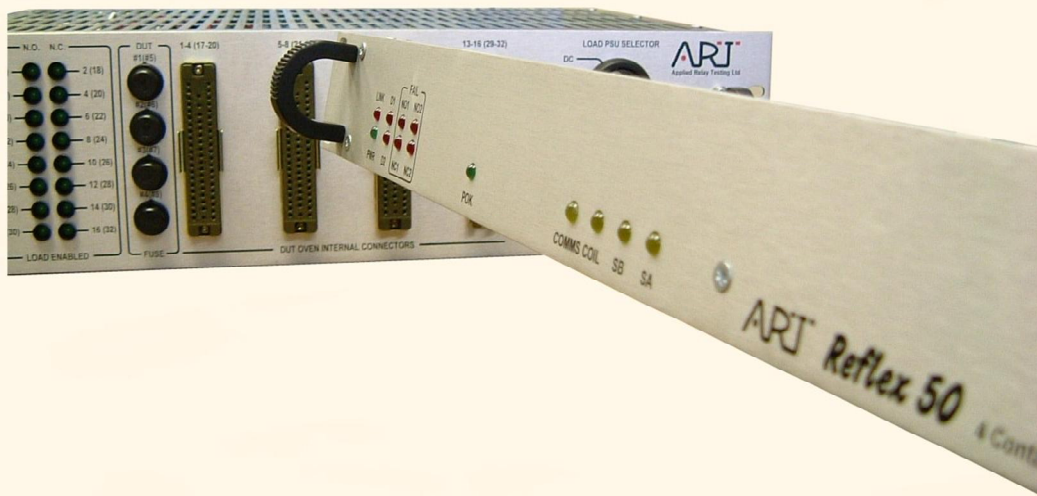


Reflex 50 Relay Life Test System



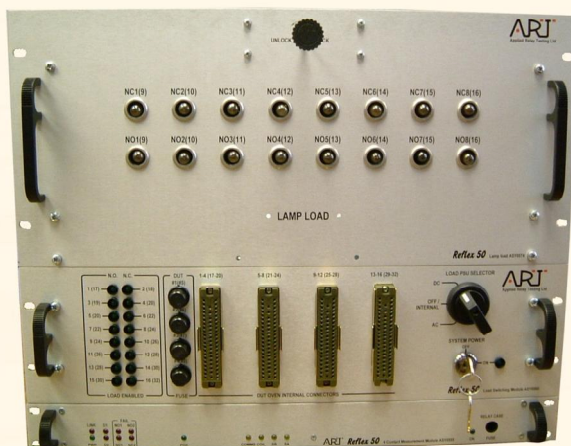
REFLEX 50 is a modular and highly flexible relay life test system. The system can be configured to suit a wide range of relay life test applications, ranging from small batch life testing, using simple go no-go threshold detection, to fully monitored parametric measurements with data logging, on extensive banks of relays. The system is suitable for testing small, medium and power relays to meet the needs of EN116000-3, MIL-R-83536/A, MIL-PRF-6106K and MIL-R-39016E.



The system configuration, including number of contacts, measurement technique, load types and reporting can all be selected to suit individual applications. An extensive range of mechanical and real life, small, medium and power loads are available. Custom loads can be designed to meet individual test requirements covering a wide range of relay and contactor devices, including:

- Monostable devices
- Single and dual-coil bistable devices
- Devices with transistor and FET drive
- Dry Circuit tests
- Small, Medium and Power Load capability

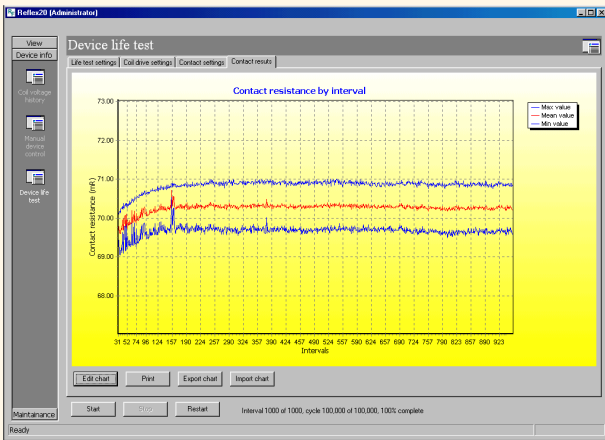
REFLEX 50 is also ideally suited to enhancing the measurement and data logging capability of existing in-house relay life test systems, by utilising existing loads and load power supplies.



Turn-key solution

Standard Reflex 50 Life Test systems can be supplied in a *Turn-Key* format including the necessary PC controller, Device Function Cards and Contact Cards. Configurations can also be offered using an external controlling PC and peripherals supplied by the user for ease of maintenance locally. If required these items can be supplied for rack mounting to achieve maximum use of floor space. Configurations for life testing large numbers of relays can easily be configured by the addition of the appropriate number of expansion chassis, additional contact cards and loads.

Graph depicting contact resistance by interval:



Device adaptors and interfacing to DUT and environmental ovens: Devices can be mounted locally on small front panel mounted adaptor cards or housed within an adjacent environmental chamber and connected by simple low-cost adaptor leads.

Portable self-test and traceability calibration pack: Each system card has built-in self-test capability for routine system confidence checking. An external portable calibration pack is available. This plugs into the device connectors and operates with the device function and contact cards to provide a semi-automatic self-test and external calibration standard.

Four contact threshold function module:

- Handles 4 single contacts or 2 change-over contacts.
- One on-board resistive load fitted at time of manufacture, this can be user specified. For other loads an external load connection is provided.
- Integral load open-circuit voltage to +/- 8V on card, 10mA max per contact.
- Measures contact voltage drop.

Multiple contact and load switching modules can be configured to suit individual life test applications to meet future system expansion requirements.

Technical Specifications:

Number of coils	Up to 8 mono-stable or bi-stable coils
Device time-base	1us or 250ns
Operating voltage range	0 to +/- 180VDC or AC _{pk}
Load resistors selectable	One on board resistance per contact or R _{external}
Load voltage	+/- 20mV to +/- 8V on card, Max 10mA per contact
Contact resistance threshold	8 ranges from 1R to 125R @ 10mA load current
Life-test cycle rate	0.1Hz to 100Hz
Stick counts (contact has welded)	0-65535
Allowed failures	0-65535 – system stops cycling when limit is reached
Results data logging	Life test range programmable into a number of intervals. Number of test cycles, stick fail counts recorded for each device in each interval

System architecture:

- Four contact measurement module (1U high) expandable up to 128 modules.
- Load switching module (3U high) which interfaces up to 4 contact measurement modules to the devices under test.
- Software programmable coil power supply module (1U high) available in a wide range of voltage and current options.
- Wide range of load modules (5U high) including resistive, inductive, lamp and custom loads.

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