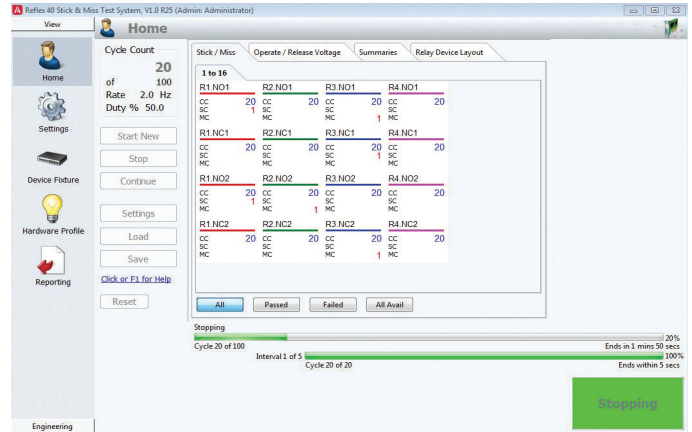


# REFLEX 40 – STICK & MISS TEST SYSTEM

Life Test



The Reflex 40 Stick and Miss Test System is designed specifically for use in relay contact monitoring applications where extended contact cycling is required. It is compliant with MIL-PRF-83536 and MIL 202 test procedures. Up to 128 relay contacts may be simultaneously monitored.

## Key Features

- Stick & Miss count for each contact
- Pull-In/ Drop-Out Voltage
- Expandable from 16 to 128 channels
- Contact types A, B or C or custom
- Compact 19" rack mounting system
- Compliant with MIL 83536 & MIL 202
- External protection module for inputs over 8.5 Vpk
- AC or DC coil / load power supplies
- Easy to use ARTWorks software
- Full data logging of Stick / Miss events

## Overview

The Reflex 40 is a special configuration of ART's highly modular REFLEX test system architecture and is equipped with threshold function contact cards and supplied with the ARTWorks Stick/Miss test software.

When used with an external Windows based host PC, the system confirms correct opening and closing of relay contacts against programmed threshold levels as the relay is energised and de-energised and can also be programmed to perform coil voltage Pull-In and Drop-Out testing. The highly flexible test environment allows the system to be easily configured to meet your specification.

Channels	16 to 128 (8 to 64 C/O) contacts
Input voltage range	0 to +/- 8.5 Vpk
Threshold range	0 to +/- 8.192 Vpk
Event counter	65535 max.
Device connector	37 way sub miniature D-type

Scan for Website:



## Product Features

### System architecture

The test system comprises of a number of modules mounted into a 19" 6U rack (which is sub-divided into two 19" 3U racks).

The load and measurement modules are in the upper rack and the coil control in the lower section. The type and number of modules fitted can be varied according to the particular test requirement.

The system is controlled by an external PC and powered using an integral universal input switched mode power supply.

### Software

An external PC controller running the Windows based ARTworks Stick/Miss software allows the user to specify:

- Coil voltage
- Cycle rate
- Contact format
- Timing measurement window
- Stick / Miss thresholds

Programmable contact voltage drop threshold levels allow the open and closed voltage limit to be configured. The system can be run either in Stop-on-Fail mode or Continuous Mode. A detailed status of each device contact is displayed when the system is running which indicates:

- Cycle count
- Stick & Miss count for for each contact
- Pull in / drop out voltage

### Coil voltage pull-in and drop-out testing

This can be tested on an interval basis for both single coil or dual coil latching relays. In this mode the coil voltage is ramped up in order to determine the Pull-in voltage or ramped down to determine the Drop-Out voltage.

### Stick / Miss testing

This is designed to confirm the correct opening and closing of the DUT relay contacts as the relay is energised and de-energised. Form A, B or C contacts can be monitored on each relay state change.

### Coil / load power supplies

19" rack mounting 1U programmable PSUs provide the DC load power and DC coil power. If AC coil power is required this can be provided using an optional 2U 19" rack mounting PSU. The power supplies are controlled from the ARTworks environment using an RS232 or USB port on the host PC

### Calibration

Comprehensive calibration and functional testing is performed using the rack mounted calibration module in conjunction with the calibration adapter. The software prompts the user through a sequence of calibration steps to verify the performance and functionality of system measurement modules and switching functions.

### 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.

### Optional front panel indicators

To aid test program configuration, front panel LEDs indicate contact load conditions and system status.

### Documentation

The system comes with comprehensive set of on-line documentation with user friendly context sensitive help.

The screenshot shows the 'Stick & Miss Data Results' window in the ARTworks software. The window displays a table of test results for various contacts. The table has columns for device name (R1, R2, R3, R4, R5, R6), contact type (CC, SC, MC), and count (140,000). The results are grouped by device name, with each device having a colored bar (R1: red, R2: green, R3: blue, R4: yellow, R5: purple, R6: pink) under the device name. Below the table, there are buttons for 'All', 'Passed', 'Failed', and 'All Avail'. A caption below the table explains the color coding and the meaning of the device name and contact name.

Stick and Miss data results are displayed in the central area of the Stick & Miss manager typically as follows:

R1 NC1	R1 NC1	R2 NC1	R2 NC1
CC 140,000	CC 140,000	CC 140,000	CC 140,000
SC MC	SC MC	SC MC	SC MC

A tab control displays each contact in a row and column matrix. Device groupings are indicated by coloured bars, for example the display above shows individual contacts of single pole changeover devices. If there is sufficient screen area, all contacts are displayed on a single tab, otherwise more tabs are added to contain the total number of contacts to be displayed.

The information displayed for each contact is as follows:

- **Caption** (eg R1 NC1). This displays the device name (R1) and the name of the contact on the device (NC1). All devices with the same device name have the same coloured bar under the caption. There is more on

Example: Built-in manual control tool

### System configuration

The system can be easily configured from a range of standard REFLEX life test modules and components. ART will be pleased to assist you.



See also:  
Reflex 51 Life Test System