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TF200 – MULTIPLE TEST SITE FIXTURE

Fixturing



The TF200 multiple Kelvin test site fixture provides sequential testing of up to 10 devices for increased throughput. Each test socket is mounted on an interchangeable module to allow the base unit to be used with different footprint styles.

Key Features

- Increases operator throughput
- Fully Kelvin connections
- Can be used to multiplex existing customer test fixtures to parametric test system
- Automatically detects fitted adaptor modules allowing row layout customisation
- Handles a wide range of through-hole mounted devices with interchangeable device inserts
- Compact, all metal construction excellent electrical screening characteristics
- Fast adaptor re-configuration
- Local illuminated switches for selecting test mode and individual device pass, fail and testing indication
- Non slip feet with tilt action

Overview

The TF200 multiple test site fixture is designed to operate with ART's full range of low voltage parametric relay test systems or alternatively third party test system hardware. The mode of operation is selected by the operator pressing one of three start buttons. The options available are to test row A only, row B only or row A followed by row B. The hardware automatically detects which sites are being used, thus by removing unwanted device adaptors the TF200 can be reconfigured to alternative layouts such as $8 \times 1, 4 + 3, 2 \times 2$ etc.

Multiplexer switches	Ruthenium reed relays (1200 mA rated)
Max number of devices	10
Max relay contacts	4 pole changeover
DUT coil types supported	Single / dual coils
Overall dimensions	605(W) x 290(D) x 90(H) (23.8" x 11.4" x 3.5")
Colour	BS 4800 00A01 (top). BS 4800 00A05 (base)





Product Features

Modes of operation

Three illuminated switches allow the operator to choose between the following options: test row A, test row B, test row A followed by row B.

Flexible test layout

The unit automatically detects which device adaptors have been fitted thereby only testing devices which are actually present. By removing device adaptors as required the unit can be rapidly reconfigured to say 3×2 or 7×1 etc.

Local test status indication

Each device adaptor is fitted with its own pass, fail and testing status LEDs which record the result associated with the specific device. At the start of the test the pass and fail lights are extinguished. When the device is being tested the testing indicator illuminates. When the device has finished being tested the testing indicator is extinguished and either the pass or fail LED illuminates as appropriate.

Compatibility

TF200 is compatible with ART's range of parametric relay test systems. Note that a 24 volt supply is required for use with third party test equipment. The unit can also serve as a device multiplexer to the customers existing test fixtures. This may be particularly advantageous when the device loading time is significant when compared with the test time.

Fully Kelvin device connections

All coil and contact connections are 4-terminal (Kelvin). Separate Kelvin connections provide connection to base/gate of active relay types. A separate (non-Kelvin) device case connection path is also included.

Device connections

High quality gold plated Kelvin socket pins are used to provide a fully 4 terminal device connection.

Custom solutions

Kelvin sockets can be manufactured to meet a wide variety of device footprints and can be configured to test through-hole devices down to 0.1" pin spacing. A sample device may be required at time of order. The kelvin sockets are available in small or large sizes to best suit the device pins. Where space is limited or when a simple connection to a metal device case is required, gold plated spring probes may be specified. A customer supplied device socket may be used if required.

Easily re-configurable

The individual adaptor modules plug into the base using sturdy 60 way gold plated connectors. The operator can reconfigure the unit in seconds in order to change footprint styles between relay batches or change the test layout.



Example: Custom Kelvin socket

Signal quality

The all-steel construction provides a high level of screening. Additionally all parametric signals are fully screened to optimise signal quality in electrically noisy environments.

Indicators and switches

Two indicators are provided to show PASS / FAIL status. The TEST and RE-TEST switches are also illuminated to indicate system idle / busy status.

Low maintenance

High quality switches and sturdy all-steel construction ensure maximum durability. All indicators use LEDs for high MTBF. Rubber feet prevent damage to work surface and reduce slipping.

Modular construction

The internal construction of the unit is based on a backplane with interchangeable multiplexer cards associated with each device position. For requirements where fewer device positions are required, the unit can be supplied partially de-populated at a lower cost.

Mapping adaptors

Mapping adaptor cables may be supplied when testing multiple parts sharing the same footprint but with different pin configurations.



See also: TF10 Low cost Kelvin test fixture



