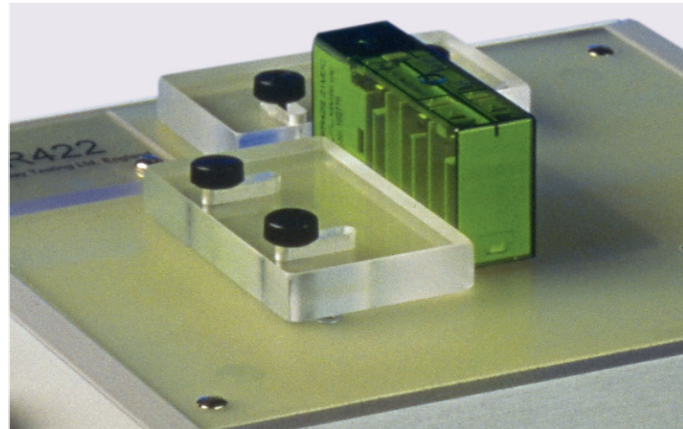
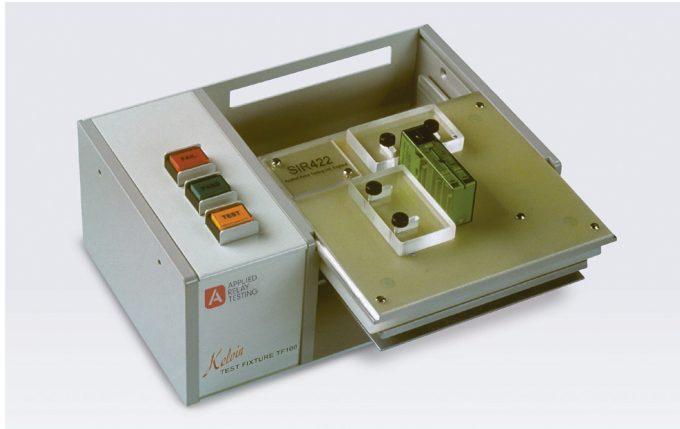


TF100 – PNEUMATIC KELVIN TEST FIXTURE

Fixturing



A customised zero insertion force (ZIF) Kelvin device socket for use with ART's wide range of precision parametric test equipment or with third party measurement hardware. Features easily interchangeable inserts and local operator lamps and switches.

Key Features

- Zero Insertion Force Z.I.F. operation
- Pneumatic operation for zero magnetic interaction with the device under test
- Interchangeable device sockets
- Customer specified footprint dimensions
- Handles a wide range of through-hole mounted devices
- Turn key solution for RT290 and Reflex users
- Compact, all metal construction - excellent electrical screening characteristics
- High quality switches and LED indicators for low maintenance

Overview

The fixture comprises of a TF100 base section and one or more interchangeable TF101 customised device socket modules. This solution allows the operator to quickly re-configure the fixture to handle a wide variety of through-hole mounted device footprints for minimum down-time. The rugged design ensures high mechanical reliability and low maintenance operation. Local 'PASS' and 'FAIL' indication plus a local 'TEST' switch are provided for basic user operation.

Fixture Check

ART parametric test equipment incorporates a fixture (socket) check which confirms the integrity of the Kelvin device connections. This ensures that the testing does not commence until the device is correctly inserted into the test fixture and that all connections are made.

| | |
|---------------------------------------|---|
| Max device pin footprint area | 40 x 56 mm (1.6" x 2.2") |
| Max pin diameter | 1 mm (0.04") |
| Min pin spacing | 2.5 mm (0.1") |
| Overall dimensions | 245(W) x 165(D) x 112(H) (9.7" x 6.5" x 4.4") |
| Weight | 3.5 kg (8 1/2 lb) |
| Air Pressure (pneumatic version only) | 1.5-7 BAR (22-102 PSI) |

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Product Features

Custom solution

The adaptor inserts are custom manufactured to meet individual footprint requirements. ART will produce the fixture based on mechanical drawings and a sample device.

Kelvin Device connections

High quality Kelvin socket pins are used to provide zero insertion force fully 4-terminal device connections

Pneumatic operation

A simple low maintenance pneumatic connection provides mechanical actuation for ZIF operation without introducing the possible magnetic influence associated with solenoid operated fixtures. A single push fit air line fitting is provided along with two speed adjusters to provide control over operate and release actuation time. Connects to 4mm filtered air line.

Non pneumatic option

Where a ZIF operation is not required, ART offer a lower cost Kelvin TF101 socket solution. With this build the TF100 base fixture is not pneumatically operated. Please contact ART for more details.

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.

Interchangeable legends

A simple cover plate retains a legend which can be customised, for example, to indicate device type and polarisation. The indicator and switch legends can also be changed for alternative languages or functionality.

Compatibility

The TF100 is compatible with ART's full range of parametric relay test systems. Note that a 24 volt supply is required for use with third party test equipment.

Device alignment

Each adaptor is supplied with adjustable guide block to ease DUT insertion.

Adaptor (mapping) cables

ART can supply adaptor cables which allow devices with identical footprints but different pin mapping to be used with a single insert.

Easy maintenance

All pneumatically operated Kelvin connections use a simple hex screw fixing allowing quick and easy removal should a pin need replacing.

Bench mounting kit



Example: TF100 fitted with bench mounting option

Signal quality

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

Device interfacing

Device connections are made using industry standard high density and subminiature D-type connectors.

Ergonomic design

Fully adjustable for left or right handed use. The standard build has the switches to the left of the device socket, please specify if non standard assembly is required.

Turnkey solution

Manufactured for customer relay footprints. Supplied with all cabling and documentation.



See also:
TF10 Kelvin test fixture