

Automated In-Line Test Handler

- Integrated ABEx test system
- Cable-less DUT contacting
- Unlimited and freely programmable contacting positions
- Product-specific fixture kits
- Micro alignment in fixture kits optional
- Handling of PCBs or DUTs in carriers
- Contacting including PCB edge area at DUT top side
- No limit in PCB thickness
- Minimal conductor length from DUT to test system (approx. 130mm)
- Contactless positioning without mechanical stopper
- Additional electronic circuits can be implemented on motherboard
- Fixture kit exchange without tools
- Energy supply to DUT from the top or from the bottom
- Manual conveyor width adjustment, optionally electrical
- Integrated PLC
- SMEMA interface
- Pneumatic components optional
- DUT marking systems and other actuators optional
- Installation space for 19" / 9U custom equipment



Applications:

- In-Circuit Test (ICT)
- Electrical Functional Test (FCT)
- In-System Programming (ISP)
- AOI Test

Description:

The FlexCell NT represents the latest generation of automated test handlers for electronic test automation with many unique attributes. Implemented in compact space the FlexCell NT allows the fully automated test of electronic assemblies and PCBs at the highest possible quality. Outstanding feature is the support of a so called wireless mode, where the signal transmission from the test probe up to the measurement device is implemented entirely without cables. This allows precise measurements under absolute stable conditions and a high test accuracy.

Integrated into the test handler is a stepless contacting mechanics based on servo motors for testing diverse products without the need for costly conversions of the handler. Combinations of functional test and in-circuit test are possible due to its stepless lifting mechanics. Vertical lifts are automatically locked against unintended lowering.

Sufficient space is available for integrating barcode readers and DUT marking systems or pneumatic systems incl. actuators. Potentially required additional electronic circuits can be implemented on the motherboard.

All measurement signals are guided entirely cableless via spring probes, rigid needles and pogo pins in a combination of DUT-specific fixture kit and the test system's motherboard to the instruments inside of the ABEx-based test system.

One of the outstanding features of the FlexCell NT is the direct integration of the test system. This integrated ABex-based system is equipped with all necessary instruments and switching boards depending on the specific test requirements for functional test and/or in-circuit test, AOI test, boundary scan test as well as in-system programming.

Integral component of the ABex design is a signal backplane and a powerful terminal module concept, allowing cableless signal interconnections across all instruments and system modules. Depending on the test configuration a multiple stage contacting lift can be implemented if necessary.

The test system is vertically integrated into the handler and possesses a cableless DUT interface to the DUT-specific fixture kit of the handler.

According to the test requirements we outfit the test handler optionally with a cableless or a cable-based fixture kit. The cableless variant offers big advantages, notably stable electrical conditions and an increased reliability of operation. At DUT sizes extending dimensions of 300 mm x 422 mm we are equipping the handler with cable-based fixture kits.

Optionally, we are offering the Konrad microalignment technology to be used on our fixture kits for reliable and precise contacting of extremely small structures.



Technical Data:

Machine Configuration

Transport height:	950 mm ± 50 mm
Transport width:	Max. 450 mm
Interface:	SMEMA
Transfer direction:	left to right or right to left
Operating side:	front
Fixed rail:	front

Panel Dimensions

Panel length:	Max. 422 mm (cableless variant) Max. 450 mm (cable-based variant)
Panel width:	35 - 300 mm (cableless variant) 35 - 450 mm (cable-based variant)
Panel thickness:	Without limitation
Component clearance:	Max. 94 mm top side, max. 120mm bottom side
Edge support width:	3 mm

Installation Requirements

Power supply:	3 x 208 V AC ... 400 V AC, 50 Hz - 60 Hz
Power supply system:	L1 + L2 + L3 + N + PE
Power consumption:	Typ.: 0,7 kW, max. 3,6 kW

Machine Description

Length x Width x Height:	1250 mm x 950 mm x 2125 mm
Weight:	approx. 650 kg
Color:	RAL7035 / RAL5023

+++ Automotive +++ Avionics +++ Semiconductors +++ Telecommunication +++ Medical +++ Industrial +++