OLS400

Off-Line Handling Solution

Pneumatic bed-of-nails handler platform supporting FCT, BST, and ISP/Flashing applications

Advanced human–robot collaboration concept feeding up to 4 handlers

Fast, repeatable and ergonomic fixture changeover

Fully customizable for diverse DUTs, test types and instrumentation interfaces

Space-optimized design for easy integration into production lines

Dual-module architecture for scalable integration and easy transport



PRODUCT DESCRIPTION

The OLS400 is a compact, semi-automatic off-line handler designed for functional testing (FCT), Boundary scan testing (BST), and other demanding PCB validation applications.

Featuring a pneumatic press, it supports a wide range of bed-of-nails configurations and enables fast product changeovers through the QCO (Quick Change Over) system.

Integrated control and monitoring via the MQTT protocol provide added flexibility and efficient operation.

This cost-effective and easy-to-install solution features a robotic arm system mounted on a compact workstation table, optimizing valuable factory floor space.

KEY FEATURES

- Compact automation cell design with integrated collaborative robotics
- Modular architecture comprising the handler and a dedicated instrumentation cart housing the testing equipment
- Dual pneumatic cylinder press system for reliable test contact
- Press plate guided by precision linear guides, ensuring stable and controlled parallel movement
- Mass interface connection through ODU and multi-pin interface blocks, with spring probe contacts integrated in the fixture (bed-of-nails)
- Automatic fixture locking system with controlled bottom lock mechanism
- Integrated Poka-Yoke system preventing incompatible fixture installation
- 14U rack space available for instrumentation integration
- Machine control via MQTT over TCP/IP, enabling integration with third-party test applications (LabVIEW™, TestStand…)
- Real time data monitoring enabled by integrated sensors

MAIN APPLICATIONS

The OLS400 is engineered for high-reliability PCB validation with optional coverage reporting, CGK/CPK capability studies, and full traceability and MES integration.

It is particularly attractive for EMS providers, R&D labs, low-to-mid volume production lines and customers requiring frequent product changes or seeking cost-effective alternatives to large in-line test systems.

TECH SPECS

Typical applications:
ICT; FCT; ISP (BST)

Operating mode:
Semi-automatic; off-line

Robot type:
Collaborative robotic arm

Maximum PCB size:
300 x 270 mm

Drive force (nominal):
3 kN

Recommended/Max test points:
1000

Handling time (machine cycle):
Approx. 4 min

Fixture changeover time:
30 s

Dimensions:
2120 (L) x 900 (W) x 2152 (H) mm

Weight:
500 kg

Rackeable/Instrumentation space:
14U

Interface type:
ODU/HARTING/INGUN/VPC

Machine communication:
Via MQTT over TCP/IP

Electrical power:
230V AC 50-60 Hz

Pneumatic requirements:
6 to 7.5 bar

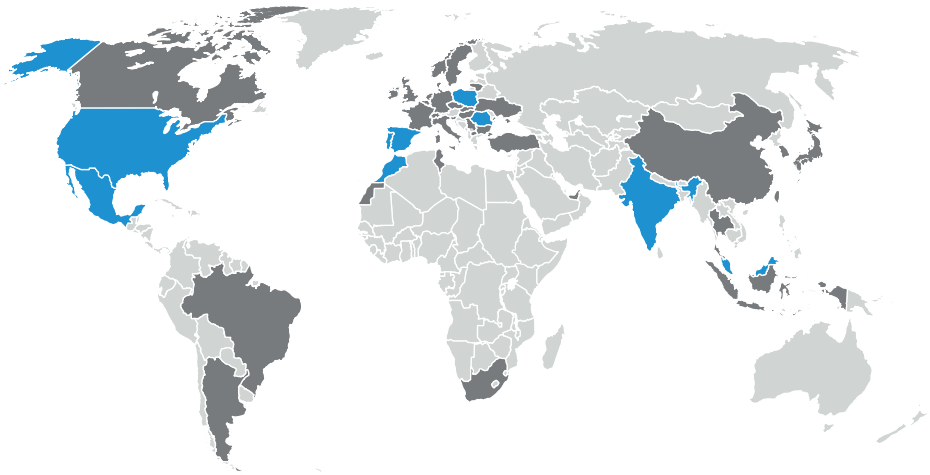
Safety:
Optical barriers + emergency stop

Mod. 239.OLS400.EN.D2

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