



## Fully automatic top-column module test system

### Product description

Conveyor section with four individual test cells for the simultaneous testing of all lever and button functions on four steering column switch modules. Actuation takes place via a 6-axis robotic arm for each test cell. The measuring technology evaluates the forces used, switching points and switching paths covered.

### Field of application

Final assembly, quality control, end-of-line testing in production/manufacturing



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### Technical data

#### Test bench / device

- Electrically operated conveyor line with 4 robot test cells
- Each of the test cells contains a 6-axis lightweight robot and a base frame welded from steel tubes
- Workpiece carrier for insertion into the belt section including pneumatic lifting
- Measuring and testing technology in the control cabinet

#### Software

- **TST-WIN test system**
  - All settings and processes are menu-driven and freely programmable
  - Extensive options for controlling the process and the measurements
  - Visualization of the test results using a table of measured values and an additional graphic display
- The "*remote maintenance*" module enables remote access by ITTronic service employees
- The "*MES*" module enables variant-dependent testing by a higher-level system
- The "*ITDB*" module, including viTronic, enables the evaluation and statistical processing of measurement data
- The "*Robotics*" module enables the integration of a robot in the testing and handling process

#### Scope of testing

- Electronic exam:
  - Sleep & operating current measurement
- Electromechanical position and function test:
  - Lever position up-down & forward-back, operation of rotary rings, menu button and set/clear button
- Mechanical test:
  - Force and torque measurement when changing the lever position

#### Input-/visualisation units

- Robot Tech panel

#### Dimensions/Transport

- 6400x2200x2200 mm (WxHxD)  
Weight approx. 3100 kg

#### Test time

- Ca. 120 sec

#### Exemplarily device type

- 6 7024