

CONVEYOR AND MULTIPLE SELECTION MODULE

Mod. MCE-705/EV

Mod. MCE-705/EV transfers pieces on a conveyor belt, identifying and sorting them according to the type of material (plastic / aluminum). The conveyor is driven by a DC motor and controlled by a relay operating the belt. Aluminum pieces are identified by an inductive sensor above the conveyor belt, and then ejected into the first warehouse by a pneumatic cylinder. White plastic pieces are identified by a capacitive sensor and then ejected into the second warehouse. Black plastic pieces are not identified by the capacitive sensor and therefore end up into the third warehouse (noncompliant product).

The module is assembled on a sectioned aluminium base, and it can be easily moved around the laboratory.

Mod. MCE-705/EV can be fully controlled using a PLC module or an Arduino microprocessor. Thanks to the PLC or Arduino programming software, a wide range of exercises regarding the automation of the module in a working cycle or in stand-alone mode can be developed.

TRAINING PROGRAM

- Fundamentals of electrical controls: the DC motor
- Operating a conveyor
- Operating a set of automated sensors
- PLC control
- Microprocessor control

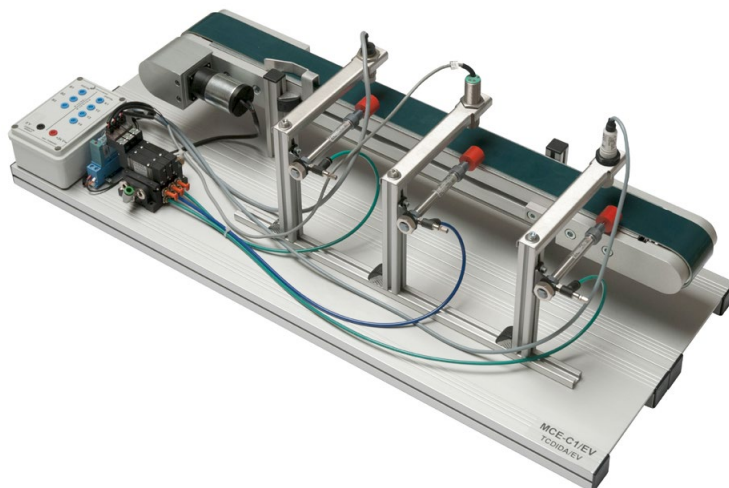
TECHNICAL SPECIFICATIONS

Modular unit assembled on a sectioned aluminium structure. It includes an I/O interface box with Ø 2 mm terminals that, besides working as control board for the module, enables the students to carry out electrical measurements on its components.

The module can be operated using:

- No. 1 PLC training panel mod. PLC-V8/EV, or
- No. 1 Arduino training panel mod. MPC-18/EV

Power supply (24 Vcc) is provided by the PLC itself or using a MPC-18/EV module.



Sensors and actuators:

- No. 2 Capacitive sensors
- No. 1 Inductive sensor
- No. 3 Monostable electrovalves
- No. 3 Microcylinders (piston)
- No. 1 24 Vdc motor (conveyor)

Module inputs and outputs:

- No. 3 Digital inputs
- No. 4 Digital outputs

Dimensions: 800 x 320 x 250 mm

Weight: approx. 12 kg

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Compressed air supply: 5...6 bar

SUPPLIED WITH

THEORETICAL-EXPERIMENTAL HANDBOOK

Presentation of the equipment, experiments, technical specifications with electric and pneumatic diagrams, use and maintenance.

