MPI010

DIDACTIC BELT CONVEYER

Experimental capabilities

- **Settings of belt tension**
- **Setting of the drift**
- **Study of various technologies detectors (photoelectric of proximity, capacitive, inductive ...)**
- **Study of the control circuits direct or automat**
- **Electrical control wiring + power on cabinet**
- **Setting belt tension**
- **Setting of pulleys alignment**

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version : FT-MPI010-STD-B

MPI010

Operating principle

The belt conveyor system can implement the interventions for mechanical maintenance, electrical and automatism on a handling system present on many conveying lines (in logistics and manufacturing)

The robust design of this device makes it suitable for use in schools.
The equipment is set up on an Anodized aluminium frame on casters wheels. This gives it great strength and a flexibility of integration into your premises.
The manufacture of this equipment complies with the European standard for machinery manufacturing.

This equipment can be used alone or with other compatible equipment from our range (see last section of this document).

Technical details

- **A structure in anodized aluminum profiles** mounted on 4 adjustable feet. **A belt conveyor** on structure anodized aluminum profiles with wheel gear motor and worm screw tri 400V/0.18kW equipped with a transmission with a pulley and V-belt.
- **Adjustable shores** to support different types of **detectors.**
- **5 detectors (inductive, capacitive, 2 photoelectric of proximity + reflex and a lever mechanical detector)**
- **1 electric box with clear cover 800*600** mounted on an aluminum structure and connected to the operative part by an industrial withdrawable connector.

This box is composed of:

- 1 isolator 4 POLE padlockable
- Circuit breaker and 30mA differential
- 1 power supply 24Vdc
- Pushbuttons and indicators necessary for piloting the installation.
-Slot for removable plate with quick connector

- **1 set of 8 products** to be conveyed consists of:
  - 4 jars in **opaque plastic**
  - 4 **metallic** jars

Wiring kit for MPI 010:

- **5 removable plates** for integration in the cabinet (terminal, DIN rails and raceways preinstalled
- **A terminal** with quick connector for connection to the cabinet
- **A circuit breaker magnetothermic**
- A motor **contactor** 1 operating directions
- **A motor contactor kit 2 operating directions**
- **1 timer**
- **1 meter**
- **1 analogical tachometer for speed control of the conveyor ...)**
- **1 variator**
- **1 soft starter**

NOTE: only 2 of the 5 plates are supplied wired. The others are provided with integrated components but not wired)

Description of the pedagogical activities on the system:

- voltage settings of the conveyor
- setting of drift of the conveyor
- implementation and wiring of a motor start 1 direction
- implementation and wiring of a motor start 2 directions
- implementation and wiring of an variator
- implementation and wiring a soft starter
- implementation and wiring of timer (coupled with the wiring of motor starters mentioned above)
- implementation and wiring a meter (coupled to the wiring of motor feeders above)

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Services required

- Electrical supply : 400Vac – 50 Hz
- Dimensions: (LxWxH mm): 1200 x 500 x 1000
- weight (Kg): 150

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine

Documentation

- User's manual
- Pedagogical manual
- Technical documentation of the components
- Lab exercises
- Certificate of conformity CE

Options

- Voltage setting apparatus of belt
  - Ref : MPI012

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