

**Product Name :**  
PLC Application Machine Process Control System or Material Handling Process

**Product Code :**  
ASTRALAB-SUPPLYA124001



**Description :**

PLC Application: Machine Process Control System or Material Handling Process

**Technical Specification :**

A compact teaching and practice unit for the control of a materials handling process using a PLC.

Two processes can be simulated: a punching process, or workpiece control in the form of a sort operation. All components are in a clearly laid out design.

Black and white cylindrical workpieces are fed from a container onto a conveyor belt.

On the belt is a reflex photoelectric proximity switch which differentiates between light and dark and feeds the white items to the pre-selected process (punching or sorting).

The black workpieces are always carried to the end of the belt, where they drop into a collector.

Compact training unit for experiments in the field of automation

Handling device with solenoid valves

Double acting cylinder (15 mm stroke): fixing /discharging of work pieces to container

Double acting cylinder (80 mm stroke): pushes work piece onto conveyor belt

Double acting cylinder (40mm stroke): executes the process (sorting or punching)

Conveyor belt with guide plates and DC motor

Cylindrical Plexiglas storage container holding 11 work pieces

15 work pieces made of Polyoxymethylene (POM): 10x white, 5x black

Pneumatic components fitted with quick-release couplings for 4mm hoses

Operation of actuators with compressed air

Lab jacks to external PLC

Set of measuring leads and pneumatic hoses

Compressed air supply: max. 6bar, 3bar recommended

3 electrically operated 5/2-way valves with spring return and with pilot valve.

Reflex photoelectric proximity switch pnp type and light switching of 5...150mm

Geared DC motor: with reduction ratio of 142.5:1, nominal torque 5.92 NM, nominal speed 22rpm.



**Astra Scientific**

www.astrascientific.com, **Email:** info@astrascientific.com

**Address:** K-88, 20th Street, Annanagar, Chennai, India – 600040 **Phone:** +91-8860605265