



Note Shown image is just for illustration original may differ

Sciencetech 2316E The Actuator Training Platform is a comprehensive hands-on learning system designed to provide practical knowledge of industrial actuators and control systems. It integrates AC servo motors, induction motors, stepper motors, DC motors, and a linear actuator to demonstrate various motion control techniques. The kit features a PLC-based control system with digital I/O, PWM-based servo drive control, and multiple display modules for real-time monitoring of speed and voltage. Industrial components such as contactors, relays, sensors, solenoid valves, and tower lights enhance real-world automation training. This trainer is ideal for engineering institutions and technical labs to develop practical skills in mechatronics, automation, and industrial control systems.

1. AC Servo Module : 1 No.

- Power : 400W
- Rated Voltage : 220V
- Rated Speed : 0 to 3000 r/min.
- Current : 1.0Ampere
- Control type : PWM control using Drive
- Encoder : 2048 / 2500 / 10000 Pulse / Rev. (Incremental, Absolute)
- Dynamic brake : Servo/Controller off Operable with the built-in alarm activated

Servo Drive System : 1 no.

- LED display : 5 digit seven segment display
- Function key : 5 nos. (mode, shift, up, down, set)
- PLC : 1 no.
- Digital inputs : 4 nos.
- Digital outputs : 4 nos.
- Communication : USB

Speed DPM display : 1 no.

- Display : Single
- Display: 4-digit, 0.56", 7-segment, red LED display
- Range : 4 to 5000 RPM
- Input : PNP switch
- Supply : 100 to 270V AC

Voltage DPM display : 1 no.

- Measuring range : 0-10VDC
- Variable DC Supply (0-10V) Potentiometer : 1 no.
- Measuring range : 0-10VDC
- Toggle switch : 6 nos. (One for Servo on/off , One for direction, four for PLC inputs.)
- Indicator : 2 nos. (One for servo status and one for direction)
- Power Indicator : 1 no.

Inductive Proximity Sensor : 1 no.

- Type : M12
- Output : PNP/NPN NO
- Sensing distance : 4 mm

3. Solenoid Valve : 1 No.

- Line Size : ½"
- Operating Voltage : 24VDC
- Operation : Directing Acting
- Acting Type : Normally Closed type

4. Induction Motor : 1 No.

- Power : 0.5HP
- Type : Induction
- Speed : 1425 RPM

5. Stepper Motor Module : 1 No.

- Motor Type : Unipolar
- Torque : 6 Kg-cm
- Phase Current : 0.8 Amp.
- Stepping Angle : 1.8 / 0.9

6. DC Motor : 1 No.

- Operating Voltage : 24VDC
- RPM : 110

7. Bulb : 2 Nos.

- Capacity : 100W

8. Solid State Relay : 1 No.

- 40 Amp 3-32 V DC Input, Controls 24-380 V AC Devices

9. DPDT Relay : 1 No.

- Electromagnetic Power Relay, 8-Pin 10 AMP 24V DC Relay Coil with Socket Base,

10. Tower Light : 1 No.

- 3 Tier LED Tower Light
- Color: Red, Green, Yellow
- Supply Volts: 24VDC
- With Buzzer

11. Linear Actuator : 1 No.

- Operating Voltage (VDC): 24
- Stroke Length (mm): 100
- Force (N): 1500
- Speed (mm/s): 7
- Protection level : IP55
- Self Locking Force : 1500N

12. Seven segment display module : 1 No.

- Seven segment display : 2 nos.
- Input operating voltage : 5V/12V
- PLC connection : 2mm sockets

13. Contactor : 1 No.

- Make : Siemens 3RT2 Contactor,
- Operating Voltage : 24 V DC Coil, 3-Pole, 9 A, 4 kW, 3NO, 400 V AC