



Elevator Demo Trainer Unit

Category: Home & Building Automation · Model reference: MZM-1001



SPECIFICATIONS

DESCRIPTION

This PLC controlled model elevator allows the student to apply his Programmable Logic Controller operating skills to a real world application. This 4-Level Elevator is developed to demonstrate and simulate the operations of the Elevator. The elevator is constructed with an aluminum base and four supporting columns. It is a portable working model with transparent sides. Moves along ball screw shafts.

The top portion of the model accommodates an induction motor with brake and a coupling assembly to operate the lift. The PLC, Power Supply and Relay Module are also housed in this compartment. It is designed to give all "UP" requests higher priority than the "DOWN" requests if the elevator is going up and priority will be given to "DOWN" requests if it is moving down. The programming is done in ladder diagram format software. There are indications to show the direction of the elevator movement. It also has a 7-segment digital display for the level number. The Level Selection Panel is mounted on the front of the side compartment instead of inside the cabin itself to enable easy access during training or simulation.

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FEATURES

1. Programmable Logic Controller System
2. Ladder diagram format
3. I/O listing with description
4. All system parameters can be commanded by using 4 buttons and a 7-segment display placed on the panel as reference
5. Can be used with simple push button command all levels (up&down)
6. Running at variable speed lifts with inverter control. System can be programmed from the software
7. Floor detection is carried out by PLC system.
8. Input Voltage : 240 Vac (Single Phase)
9. Drive: Ball Screw for drive movement cabin up and down
10. Speed Lifting 20-40mm/sec
11. Display indicator by 7-Segment LED
12. PLC will be used as the real life controller for the elevator operation and safety checks.
13. Emergency Stop button
14. Selector switch auto/manual for select PLC mode - Manual control switch for all motion (up down) floor door upon floor level status basis
15. Safety devices indicated by using LED
16. Control panel with safety simulation switches
17. Structure: 4 floors(Approximate h x l x w, 1700 x 440 x 600mm)
18. Transparent Polycarbonate outer casing to visualize the entire movement and operation of the elevator system.
19. Comes with 4 castors for easy movement
20. Anti-slip safety feature for cabin

MOTOR DRIVE

1. 6W Induction Motor, with gear box
2. Traction machine speed ratio 30:1
3. Rotation Speed 1400rpm
4. 220V Single Phase for Up/Down cabin movement.
5. Speed Controller to control Up/Down Induction Motor
6. Photo Electric sensor to control to sense open/close door

DOOR SYSTEM

1. 24VDC, 60rpm Gear Head motor to control open/close door
2. Spur gear and rack
3. LM Guide for slide door

OPTIONAL

1. Power Failure
2. Overload (Buzzer ON!!!!)
3. Floor detection sensor failure
4. Level indicator failure (7 Segment Display)
5. Cargo Up Down failure
6. Level 1 Door failure (Motor Spoil)
7. Level 2 Door failure (Motor Spoil)
8. Level 3 Door failure (Motor Spoil)
9. Level 4 Door failure (Motor Spoil)
10. Level 1 Up button failure
11. Level 2 Up & Down button failure
12. Level 3 Up & Down button failure
13. Level 4 Down button failure
14. Indoor Level button error
15. Indoor Close button error
16. Indoor Open button error

Country of Origin

Malaysia

Warranty

12 months warranty against manufacturing defects



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