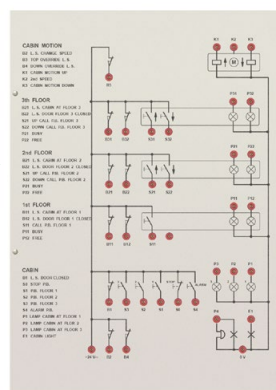


BASIC 3-FLOOR LIFT

Mod. LDIDA/EV



Rear panel

Trainer mod. LDIDA/EV has been designed to simulate a 3-floor lift commonly used in multi-storey buildings.

The trainer reproduces all different components and features of an actual lift, such as the opening/closing of the doors, a variable speed motor to control the movement, presence sensors at each floor, as well as alarm and emergency buttons.

The cabin is fixed on a mobile cart driven by a low voltage DC motor controlled by pulleys.

Call buttons are available on a panel at each floor. LEDs indicate the elevator status (free/busy). Switches simulate the door status (open/closed) at each floor. Other LEDs located at each floor signal the current position of the cabin. Each panel includes a LED to signal the possible activation of the alarm button in the cabin.

The cabin operating panel includes:

- 3 LEDs signaling the current position of the lift
- 5 call/stop/alarm buttons

It also features:

- A LED and a buzzer signal the alarm situation
- A LED simulates lighting in the cabin
- A switch simulates the cabin door status (open/closed)
- More LEDs signal the cabin door status (open/closed)

- Micro-switches are used as limit switches to protect the engine in case the cabin runs off track
- Micro-switches at each floor are used as starting point of the deceleration and of the cabin stop
- 3 relays with LEDs control the motor direction and speed

A silk-screen panel reproduces the structure and features of the lift such as alerts, calls, stops and direction of the cabin. All process inputs/outputs are connected independently to the PLC by means of the rear panel Ø 2 mm terminals.

The aim of the equipment is to teach students how to program a PLC to control the operation of a lift.

TRAINING PROGRAM:

- System analysis
- System I/O setup
- Process flow diagram generation
- Step-by-step sequence
- Logical process flow diagram generation
- Evaluation of potential problems
- Program development

TECHNICAL SPECIFICATIONS:

Electric characteristics

- 10 limit switches
- 9 LEDs signaling the cabin at the floor
- 3 LEDs signaling the cabin speed and direction of travel (up/down)
- 4 requested floor buttons
- 9 LEDs signaling the lift status at the floor (free/busy/alarm)
- 3 switches simulating if the cabin door status at the floor (open /closed)
- 6 LEDs signaling the cabin door status at the floor (open / closed)
- 1 diverter switch reproducing the open /closed cabin door status
- 2 LEDs signaling if the cabin door is open or closed
- 1 LED to light the cabin
- 3 floor request buttons
- 1 emergency stop button
- 1 alarm button
- 3 LEDs signaling the position at the floors
- 1 LED signaling an alarm status
- 1 Buzzer signaling an alarm status
- 1 DC gear motor
- Connection to the PLC by means of Ø 2 mm terminals

Mechanic characteristics

- Silk screen synoptic
- Vertical aluminum frame with interface box
- DC gear motor coupled to a system of pulleys with a belt for the cabin motion

A PLC (not included) is needed to control the process. Minimum requirements:

- 23 24 Vcc digital inputs
- 14 24 Vcc 0,5 A digital outputs

Suggested PLC:

- 1 PLC training panel mod. PLC-V8/EV with 16 DI / 16 DO
Expansion mod. V8-1/EV

Or, as alternative:

- 1 PLC training panel mod. PLC-V6/EV

Power Supply: 24 Vcc – 0.5A (supplied by the PLC)

Dimensions: 655 x 297 x 100 mm

Weight: 3 kg

SUPPLIED WITH

Accessories:

Set of 40 1 mm cables with safety plugs (Ø 2 mm)

**THEORETICAL-EXPERIMENTAL MANUAL
WITH APPLICATION GUIDE**

