

LCD240 horizontal series

PIKOTEC

Horizontal Graphic LCD Display Device for Lifts

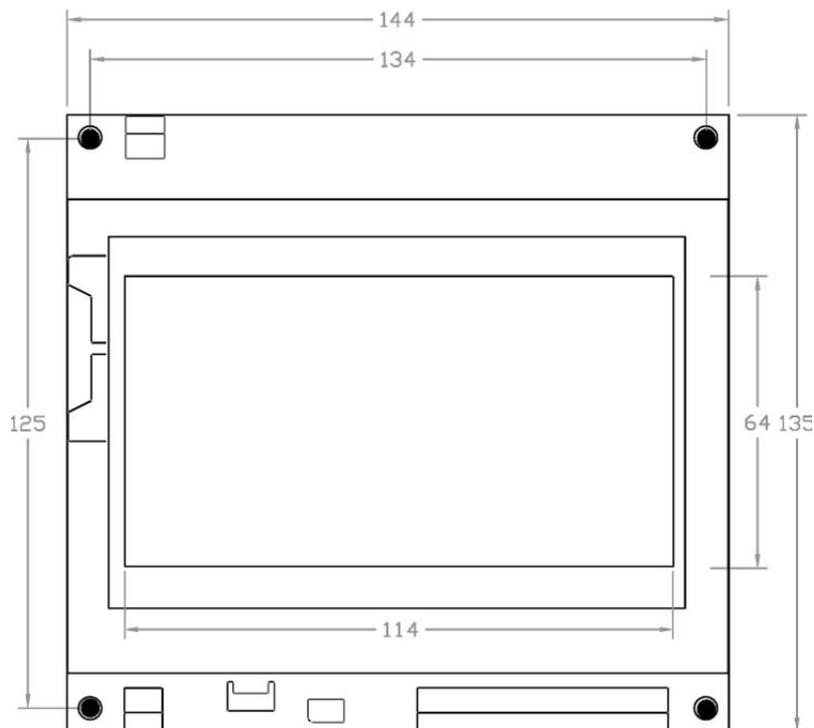


LCD240 horizontal series

Horizontal version of LCD240 is a graphic LCD display with a resolution of 240 by 128 pixels and horizontal orientation. The display is optimized for lift applications. It can be assembled either to the car or to the level. It can present floor markings, direction arrows and the other graphical symbols needed for special indications. Also other information, such as time and date, a company logo or “floor info pictures”, can be presented on specific versions. User editable floor info pictures enable presentation of any useful information associated with certain floor(s) in addition to regular car position indication. Audible signaling can be done by a standard gong. Gong sounds differently according to direction that car moves. Device is capable to take action in power failure situation automatically. There are two PCB versions available, standard and small.

Functional specifications

- Applicable for assembly either to the car or to a level
- Maximum number of floors is 32
- Presents floor markings, direction arrows and graphical symbols needed for special indications
- Floor mark consists of one or two letters or numbers (0...9, A...Z, minus sign)
- (Optional) presentation of time and date
- (Optional) presentation of floor associated bitmaps of size 160 x 32 pixels, capacity is 12 bitmaps
- Audible signaling by a standard gong (loudspeaker is an accessory)
- Ability to display emergency information in a power failure situation automatically (requires external back-up power supplied to corresponding connector), polarity is software selectable
- Adjustable loudspeaker volume (loudspeaker is an accessory)
- Real time clock operates until year 2099 (daylight saving automatism)



LCD240 standard PCB

Display module specifications

- Display resolution: 240 x 128 pixels (H x V)
- LCD type: STN, negative, blue, transmissive
- Backlight: long life white LED
- Active area: 114 mm x 64 mm
- Viewing angle: min. 40° (with contrast ratio = 1.4)
- Contrast ratio: typ. 5 (when $\sigma = 10^\circ$ and $\tau = 0^\circ$)
- Adjustable contrast (trimmer potentiometer)
- Expected lifetime 100 000 h

Electrical connections

- Operating voltage range 12...30 VDC (max. 5% ripple)
- Current consumption 65...113 mA @ 24 VDC (without gong)
- Backup battery input
- Parallel interface has:
 - Internal 10 k ohm pull-down or pull-up resistors (jumper selectable)
 - Input voltage range: 0...30 VDC
 - Logic 0: 0...1 VDC
 - Logic 1: 10...30 VDC
 - Parallel mode position input coding is selectable: Binary / Gray
 - 4 inputs for the symbol indications control
 - 2 inputs for the gong control
 - 2 inputs for arrow direction control
 - 1 input that activates arrow scrolling
- RS-232 serial interface for LCDtool cable
- Loudspeaker impedance: 8...32 ohm
- Adjustable volume (trimmer potentiometer)

Configuration

- LCDtool application (accessory)
 - All graphics (bitmap) are editable with a PC
 - Requires LCDtool software and a cable, also picture editing software is needed
 - Floor marks and twelve floor pictures can be easily modified by editing the text file
 - LCDtool also sets device clock up to date
- Device configuration is made by means of displayed menu and 3 push buttons covering configuration of:
 - Input coding (BIN or GRAY)
 - Installation position selection (CAR/LANDING)
 - Logo graphics (OFF/ON)
 - Programming (PROG OFF/ON)
 - Power Failure Polarity (PF POLAR 0/1)
 - Arrow input selection (EXT/AUTO)
 - Emergency info picture (EMER INFO 0...2)
 - Time and date settings (RTC SET) (optional)
 - Level for SYM4 (SYM4 FLOOR)
 - Level for gong if in landing-mode (GONG FLOOR)
 - Floor marks (BUS 00...BUS 31)

Size and environment

- Physical dimensions (+additional space for connectors)
 - Standard PCB: 144 mm x 135 mm x 24 mm
 - Small PCB: 144 mm x 104 mm x 24 mm
- Weight: 245 g (max.)
- Operation environment: 0...70 °C, RH: <85% (no condensation)
- Not to be used in wet, moist or dusty environment