

IML3D50L, IML3D50LSG

LED MATRIX POSITION INDICATORS

DISPLAY

Three digits, 8*5 matrix, red LEDs
37 mm x 23 mm digits, visible from 10 meters

GONG (Optional, no GONG command at SG models)
Three tone generator to drive an 8 ohm speaker.

SERIAL PORT

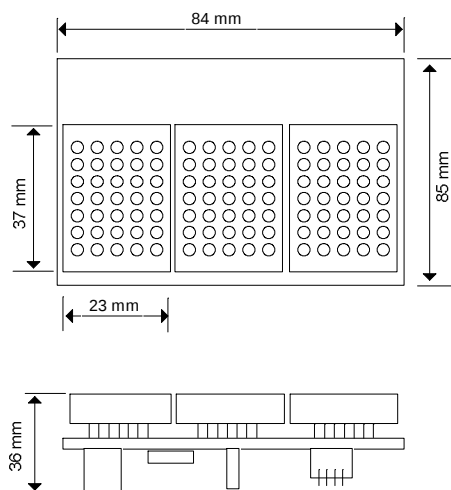
Reception only, RS232-C
8 bit, 4800 baud, 1 stop, no parity

FUNCTION CODE

Six jumpers set a binary code to define the position of each IML2D50L... in a system: at cabin or at Nth. floor. Codes 1 to N (N<48) are used for indicators from the first floor to the Nth. floor.
Code 48 is used for indicator at the cabin.
Code 49 is used for special applications.

POWER SUPPLY

Voltage: 10 Vdc Nom. Min.: 8.5 Vdc Max.: 15 Vdc
Maximum supply current without speaker: 0.3 A
Maximum supply current with speaker: 0.5 A
Weight: 150 gr (without speaker)



MADE IN URUGUAY

APPLICATION

Displays three characters and signs and generates audio tones (GONG function).

CHARACTERISTICS

- Receives a six character serial code at the RS232 port.
- Three high brightness LED matrix indicators.
- Up to 48 units can be wired over a single serial line and individually addressed.
- Completely solid state, with microprocessor.

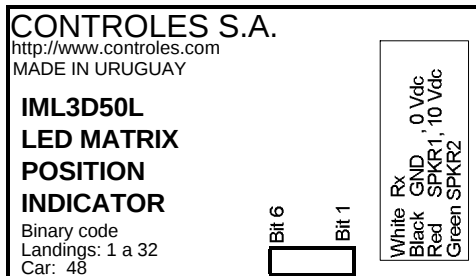
FORMAT: byte 1, byte 2, byte 3, byte 4, byte 5, <CR>

- byte 1 left character
byte 2 center character
byte 3 right character
byte 4 bit 0 to bit 5: =14 + address.
address 0: simultaneous command to all indicators
address N: an order to any N-coded and 0-coded unit
bits 6 and 7: 00: no gong
01: single tone
10: double tone
11: triple tone
byte 5 update mode:
"0" characters change without delay
"1" to "9" idem and remain flickering (0.3s to 2.5s period)
"A" to "J" characters change going down for 0.4 to 4s
"a" to "j" characters change going up for 0.4 to 4s

Any ASCII character may be displayed, and some special signs:

- 219: test command, all LEDs on.
220: right arrow 221: left arrow
222: up arrow 223: down arrow

A series resistance at the speaker line may be added, about 10 ohm, 1/2 W, to modify gong loudness.



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The 8 ohm loudspeaker (not supplied) is wired to SPKR1, SPKR2. An aprox. 10 ohm $\frac{1}{4}$ W resistor may be inserted to adjust the audio volume.

CONTROLES S.A. offers some accessories for IML3D50L:

1) FP10V600MA Power Supply. It sources 10 Vdc @ 600 mA (unregulated) from 220 Vac, 50/60 Hz (other voltages optional).

This unit is a transformer with rectifier and filter mounted over the transformer. The negative output is wired to 0V pin and the positive output to the 9/12VCC pin at the indicator.

One FP10V600MA is used for each indicator. The 0V reference wire at the transmission line is the only reference between them and the controller.

2) Interface Kit KTTL/ACC containing:

ACTTL/232-DIN adapter

Flat cable from TTL port to the adapter

DB9-P line connector.

ACTTL/232-DIN supplies optical isolation between TTL and RS232-c sides. This is a very valuable characteristic that protects the controller against any problem at the line side. The ACTTL/232-DIN must be mounted near the controller.

The flat cable connector is inserted at the TTL port. Pin 1 at the connector is the upper-right one. The other end of this cable must be connected to the adapter as follows:

black wire (pin 4 at TTL port) and white wire (pin 1 at TTL port) to pin MA at the adapter.

red wire (pin 3 at TTL port) to pin RX-TTL at the adapter.

The line from the adapter to the indicators is a two conductor shielded cable. The shield is grounded at the controller side only, to one of the mounting screws of the board to the aluminum base. The common wire at the line (pin 5 at the DB9-P) is connected to pin 0V at the indicator. The Tx line (pin 2 at the DB9-p) is connected to pin Rx at the indicator.

3) CPTTL/IML cable adapter, often used to drive the line to the IML3D50L from the TTL port at the controller. It is a simple and economical non isolated low voltage level line driver. Occasionally some difficulties may appear when trying to apply this adapter with existing wiring at an old building.

The adapter has a 15 cm 10 conductor flat cable and a 30 cm ground wire at the CEA51FA side, an adapter circuit and a 50 cm two conductor shielded cable at the line side. The circuit is powered from the TTL port connector.

The flat cable connector is inserted at the TTL port. Pin 1 at the connector is the upper-right one. The ground wire is connected at one of the mounting screws of the board to the aluminum base.

The shielded cable at the line side is to be continued with a similar one just to the indicator. The common wire (black wire) is connected to pin 0V at the indicator. The Tx wire (green wire) is connected to pin Rx at the indicator. The shield of the line cable continues the shield of the adapter cable and remains without any connection at the other end.