Economical Large Digit Display
LD4-RTC Real Time Clock

4 x 57mm high LED digits

Features

- Digit heights 57mm (2.3"), visible to 25 metres
- 12 hour, 24 hour or Day/Month clock
- Clock synchronisation from internal clock, 50 or 60Hz mains, high accuracy 10MHz crystal (optional), GPS satellite transmission (optional) or from a master clock via serial communications (optional)
- Internal battery backed clock chip operates during mains failure to maintain correct time when power is restored
- High brightness/high visibility red LED Display
- Adjustable brightness level to avoid glare
- 2 x setpoint alarm output relays, up to 32 alarm settings can be programmed for each relay
- Synchronisation lines for Master and Slave Clock applications (optional)
- Pushbutton Calibration and Setup
- Power Supplies include 240V, 110V, 12 to 16V AC or non isolated 15 to 24VDC or optional isolated DC (12 to 24 or 28 to 48VDC) supplies, factory configured
- 2 Year Guarantee
- Rugged IP65 Weatherproof Construction

Description

Model LD4-RTC is a versatile Real Time Clock with a visibility rating of 25m with the display of 4 x 57mm high red LED digits. High brightness red LED displays are used to achieve good visibility, even in areas with high ambient light levels.

The clocks may be set to operate as either a 12 hour, 24 hour or Day and Month clock. Accuracy is ensured by synchronisation with either 50Hz or 60Hz mains, internal high accuracy crystal or GPS synch. Should power fail, the clock's internal timer will take over and maintain time keeping until power returns.

The displays are fitted with 2 x setpoint relays that may have up to 32 alarms set to each. The alarms can be set to function at the same time(s) each day or only on certain days of the week etc - the flexibility is enormous.

With serial retransmission options fitted the LD4-RTC can be used as a master or slave station in a master/slave clock installation. In this configuration, the slaves are synchronised with the master over RS485 communications. Should the master fail or communications be lost, the slaves will keep their own time and will be resynchronised with the master once the system returns to normal

The 57mm LED display is housed in a rugged, IP65 rated, UV stabilised ASA enclosure.

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Technical Specifications

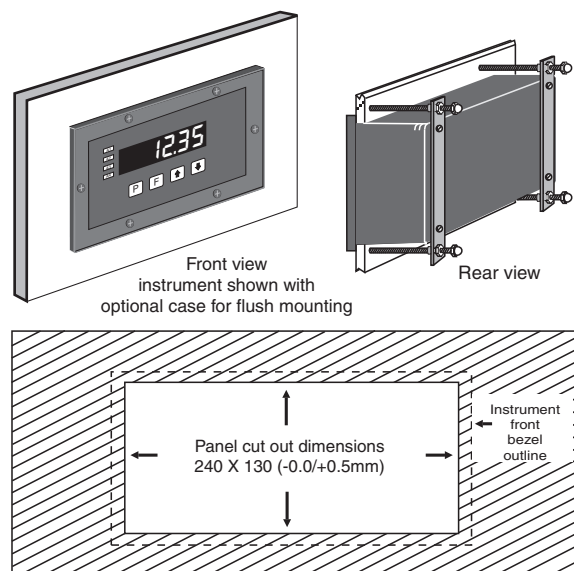|	
Synchronisation:	Internal clock, 50Hz or 60Hz mains frequency, 10MHz high accuracy crystal or GPS satellite transmission
Accuracy:	Internal oscillator: ±30 seconds/month High accuracy crystal: ±3 seconds/month GPS synch: accurate to GPS system ±0.1 second Mains sync: Accurate to mains frequency. Where frequency is controlled this gives a typical accuracy of ±1 sec.
Memory	Clock chip with battery backup used during power failure. This means that correct time will be displayed when power is reconnected
Clock functions:	12hr, 24hr or month and day selectable LD4-RTC can be configured in master/slave applications
Microprocessor	MC68HC11 CMOS
Ambient temperature	-10°C to 60°C
Humidity	5% to 95%
Outputs	2 x setpoint relays, form A, rated 5A at 240VAC (resistive load)
Power Supply	See order code table (type is factory configured)
Power Consumption	AC supply: 15VA max, DC supply: depends on supply voltage, typically 500mA (2A peak) for 24VDC using non isolated DC supply
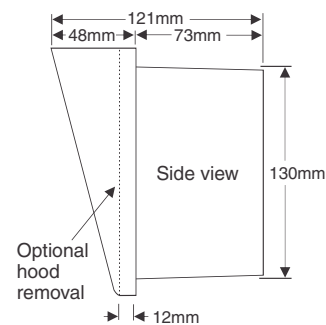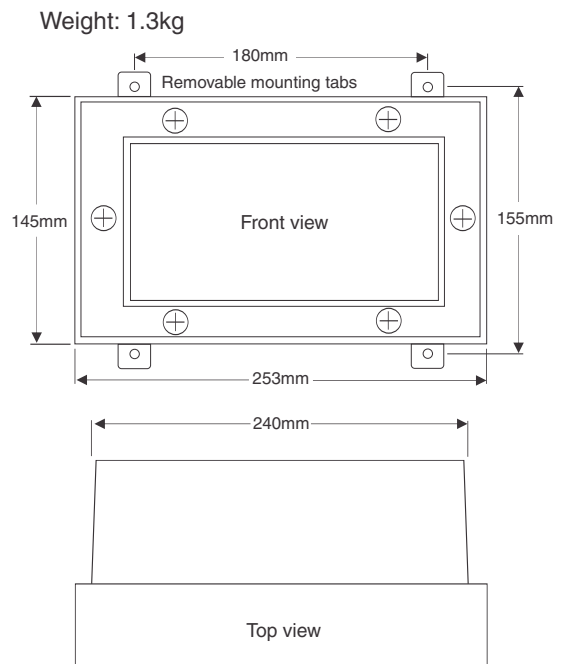
Order Codes

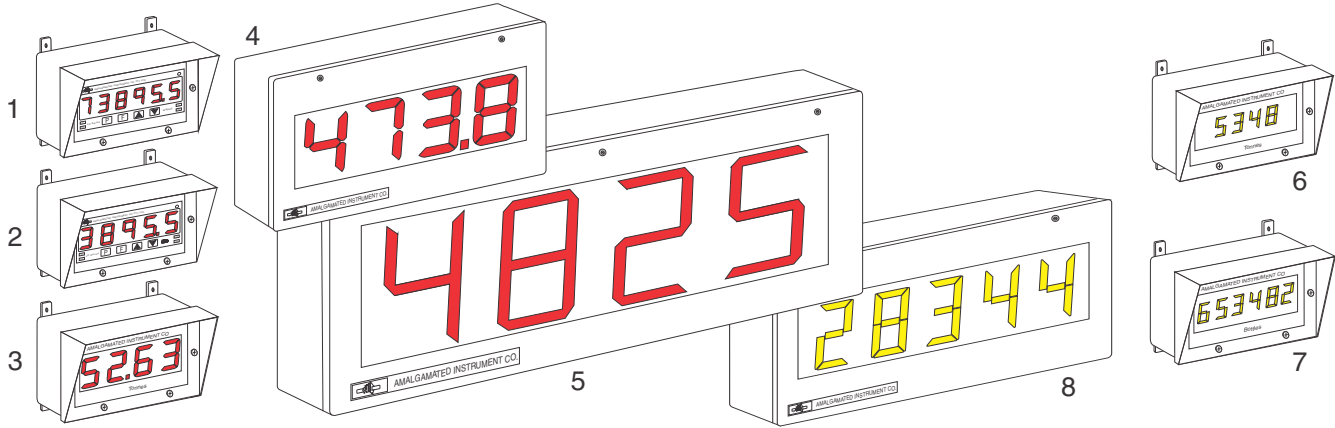| Order Code	Display	Supply Voltage
LD4-RTC-240-574	4 x 57mm red LED	240VAC
LD4-RTC-110-574	4 x 57mm red LED	110VAC
LD4-RTC-DCN-574	4 x 57mm red LED	15-24VDC non isolated
LD4-RTC-DC-574	4 x 57mm red LED	12-48VDC isolated

Options

Option Code	Description
LD4-OPT-2	RS232 serial comms, non-isolated
LD4-OPT-4	RS485 serial comms, non-isolated
LD-MTG-PM-KIT	Panel mount kit incl brackets & screws
LD-HOOD-REMOVAL	Front hood removal

Weight and Dimensions

Weight: 1.3kg

180mm
Removable mounting tabs
145mm   Front view   155mm
253mm

240mm
Top view

121mm
48mm   73mm
Side view   130mm
Optional hood removal
12mm

Panel Mounting Options

Front view instrument shown with optional case for flush mounting

Rear view

Panel cut out dimensions 240 X 130 (-0.0/+0.5mm)

Instrument front bezel outline

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Displays available in Large Digit Series

No.	LED digit size	No of digits	No.	"FLIP" digit size	No of digits
1	38mm	6	6	39mm - selected models	4
2	45mm	5	7	39mm - selected models	6
3	57mm or 58mm	4	8	100mm	4, 5 and 6
4	100mm	4 and 6	38, 58, 100 and 200mm LED displays		
5	200mm	4	are available in red, green, amber or white		

Applications/input types available with large digit display models

- Analog input, process transmitters etc. ±20mA, 4-20mA or ±2.5VDC or ±25VDC
- Pulse input, rate, total, count, grand total (encoders, switches, proximity sensors etc.)
- Temperature - RTD, thermocouple, 4-20mA
- Weighing - 4 or 6 wire mV/V output loadcells
- Pressure measurement - 4 or 6 wire mV/V pressure sensors or 4-20mA analog transducers
- Liquid level measurement - 4 or 6 wire mV/V pressure sensors or 4-20mA analog transducers
- Serial input - RS232, RS485, Serial current loop for slave displays etc.
- Synchronous Serial Interface (SSI) for high accuracy position etc. measurement
- Binary, BCD or Gray Code input
- Real Time clock with alarms
- Multifunction timer - elapsed time, stopwatch, run time etc.

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