# **Economical Large Digit Display** LD4-TR for pulse input

For count, rate, total, tachometer, batching applications

### 4 x 57mm high LED digits



#### Features

- 4 x 57mm red LED digits, visibility rating to 25m
- Rate, Total or Grand Total from pulse input
- IP65 rated wall mount enclosure
- Count rate up to 100 kHz
- 2 configurable setpoint relays standard capacity 240VAC, 5A, form A
- Relays can be set to operate from rate, total or in "pass" mode (the relay activates for a programmable length of time each time a multiple of a total is reached. For example operate for 1 sec. at each count of 1000)
- Remote reset or programmable automatic reset
- Rate or period display for input signals less than 1kHz
- Compatible with a wide range of input sensor types with a pulse output
- Different engineering units can be set for rate and total displays (e.g. litres/min and kilolitres)
- Pushbutton setup and calibration
- 2 year guarantee
- Special low frequency mode stops flickering of display between 0 and rate when input is a lower frequency than the sample rate

#### Description

The LD4-TR range of large digit displays is designed for use with pulse input signals. The instruments can be configured to accept a wide range of sensors including contact closure, PNP and NPN transistor inputs (both 2-wire and 3-wire), AC and DC voltage signals and induction sensor outputs amongst others. The input frequency can be up to 100kHz. The LD4-TR can be configured for rate, total (counting etc) or both. The LD4-TR will also keep a grand total in totaliser mode.

Remote input connections are available to reset display to zero, to restart display at a preset value, and to hold the display or show the peak reading (peak hold) amongst other functions. The totaliser memory is backed up by an onboard battery. Setup of the instrument is achieved without the use of special tools.

Some jumpers are set within the instrument to define the input type but calibration, alarm settings, decimal point etc are all carried out using the push buttons on the main board of the instrument.

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



#### LD4TR-2.3-0

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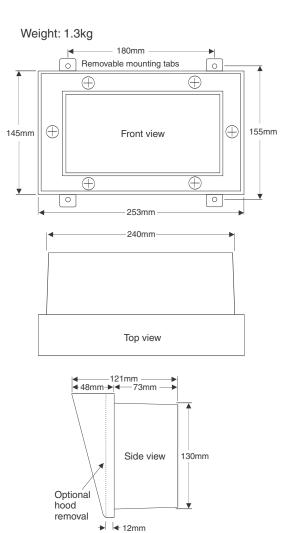
Unit 5, 28 Leighton Place Hornsby NSW 2077 Australia Telephone: +61 2 9476 2244 Facsimile: +61 2 9476 2902 ACN: 001 589 439

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#### **Technical Specifications**

| Input types         | Selectable types inc: NPN,<br>PNP, switch contact, magnetic<br>pickup, output from TTL,<br>CMOS, square wave, etc                       |  |  |  |
|---------------------|---|--|--|--|
| Reset input         | Voltage free switch contact<br>or 5VDC signal   |  |  |  |
| Memory              | Battery backed totaliser<br>memory  |  |  |  |
| Max. count rate     | 100kHz  |  |  |  |
| Accuracy            | Better than 0.01% for rate display (0.01% $\pm 10\mu$ sec for period display)   |  |  |  |
| Input Impedance     | $10 \mathrm{k}\Omega$   |  |  |  |
| Microprocessor      | MC68HC11 CMOS   |  |  |  |
| Sensor supply:      | 5VDC regulated or<br>18 to 25VDC unregulated,<br>link selectable <b>(25mA max.)</b>   |  |  |  |
| 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<br>(type is factory configured)  |  |  |  |
| Power Consumption   | AC supply: 15VA max,<br>DC supply: depends on supply<br>voltage, typically 500mA (2A<br>peak) for 24VDC using non<br>isolated DC supply |  |  |  |

## Weight and Dimensions



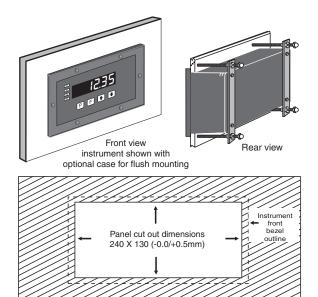
## **Panel Mounting Options**

#### Order Codes

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



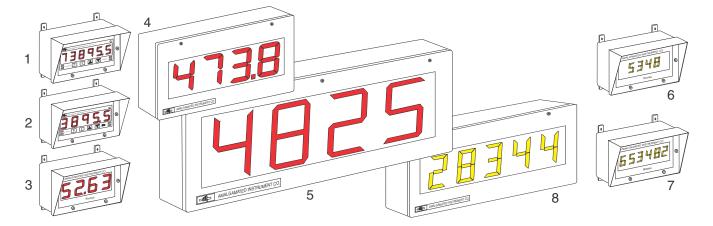
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#### Displays available in Large Digit Series



| 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.  $\pm 20$ mA, 4-20mA or  $\pm 2.5$ VDC or  $\pm 25$ VDC
- 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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