

# Large Digit Display – 39mm “flip” digit height LD-TR for pulse input

For count, rate, total, tachometer, batching applications



## Features

- 4 or 6 x 39mm EMD “flip” digits  
visibility rating to 18m
- 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 exam-  
ple - 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 LD-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 LD-TR can be configured for rate, total (counting etc) or both. The LD-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 39mm “flip” displays are housed in rugged, IP65 rated, UV stabilised ASA enclosures.



## Applications

The LD-TR with the 39mm display will be ideal for applications where rate/total indications need to be visible at distances up to 18m in high ambient light conditions. The instrument can be used for counting product on a line, for displaying RPM, for flow applications, belt speed and many other applications where a pulse signal is available.

LDTR39-2.3-0

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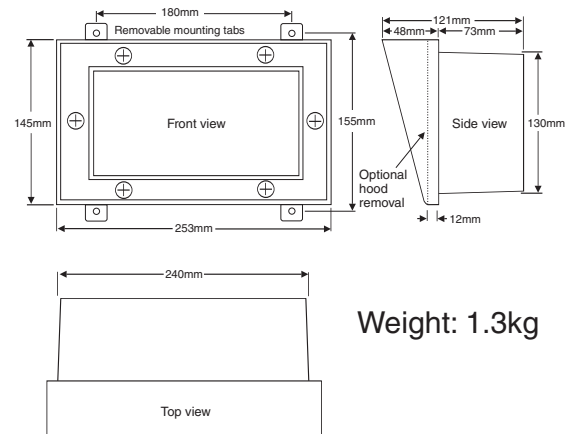
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## Technical Specifications

Input types	Selectable types inc: NPN, PNP, switch contact, magnetic pickup, output from TTL, CMOS, square wave, etc
Reset input	Voltage free switch contact or 5VDC signal
Memory	Battery backed totaliser memory
Max. count rate	100kHz
Accuracy	Better than 0.01% for rate display (0.01% $\pm 10\mu\text{sec}$ for period display)
Input Impedance	10k $\Omega$
Microprocessor	MC68HC11 CMOS
Sensor supply:	5VDC regulated or 18 to 24VDC unregulated, 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 (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

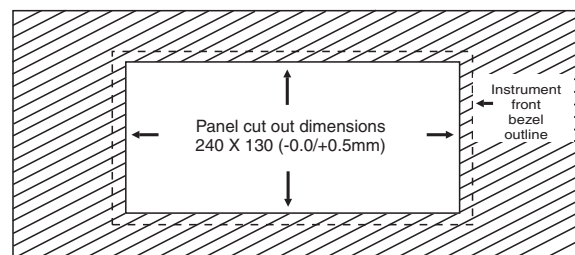
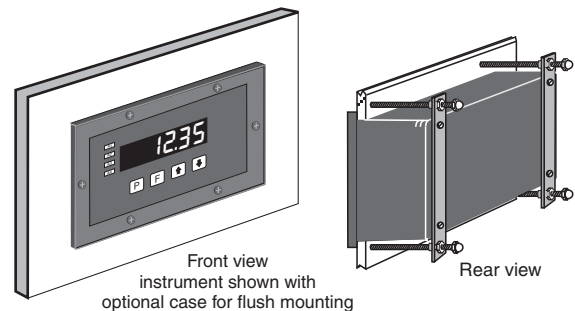
## Dimensions



## Panel Mounting Options

### Order Codes

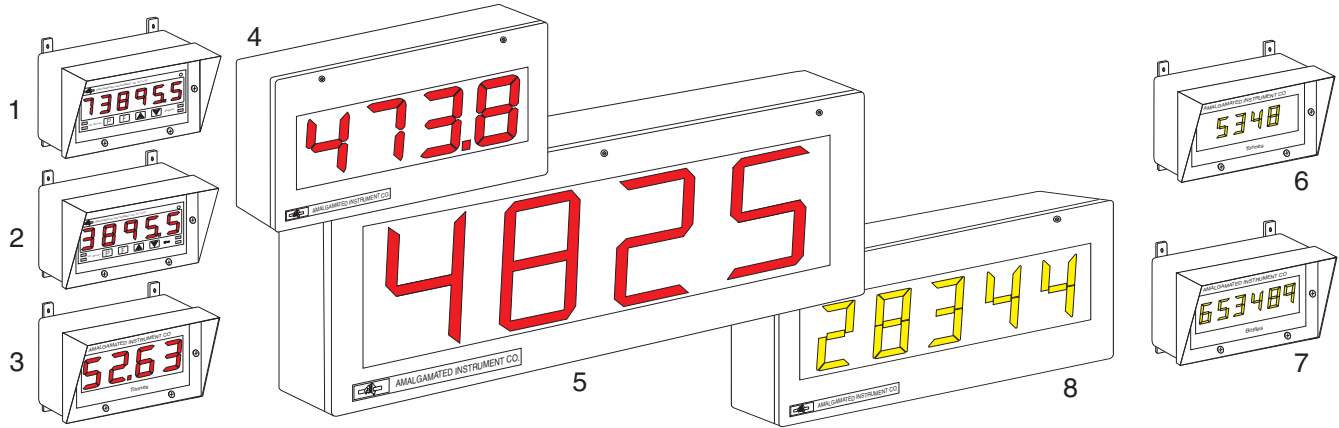
Order Code	Display	Supply Voltage
LD-TR-240-39E4	4 x 39mm "flip"	240VAC
LD-TR-110-39E4	4 x 39mm "flip"	110VAC
LD-TR-DCN-39E4	4 x 39mm "flip"	24VDC non isolated
LD-TR-DC-39E4	4 x 39mm "flip"	12-48VDC isolated
LD-TR-240-39E6	6 x 39mm "flip"	240VAC
LD-TR-110-39E6	6 x 39mm "flip"	110VAC
LD-TR-DCN-39E6	6 x 39mm "flip"	24VDC non isolated
LD-TR-DC-39E6	6 x 39mm "flip"	12-48VDC isolated



### Options

Option Code	Description
LD-OPT-TR-232	RS232 serial comms, non-isolated
LD-OPT-TR-485	RS485 serial comms, non-isolated
LD-MTG-PM-KIT	Panel mount kit incl brackets & screws
LD-HOOD-REMOVAL	Front hood removal

## Displays available in Large Digit Series



No.	LED digit size	No of digits	No.	"FLIP" digit size	No of digits
1	38mm (1.5")	6	6	39mm (1.5") - selected models	4
2	45mm (1.8")	5	7	39mm (1.5") - selected models	6
3	57mm (2.3")	4	8	100mm (4")	4, 5 and 6
4	100mm (4")	4 and 6	Other sizes and styles of display are under development		
5	200mm (8")	4			

## Other applications available with large digit displays

- Analog input, process transmitters etc.  
4-20mA, 0-1VDC, 0-10VDC, slidewire
- Rate, total, count, grand total from pulse input
- Temperature - RTD, thermocouple, 4-20mA
- Weighing - mV/V ratiometric loadcells
- Pressure measurement - mV/V ratiometric or analog transducers
- Liquid level measurement - mV/V ratiometric or analog transducers
- Serial input - RS232, RS485, Current loop
- Synchronous Serial Interface (SSI)
- Binary, BCD or Gray Code input
- Real Time clock with alarms
- Multifunction timer - elapsed time, stopwatch, etc.
- Time and Temperature