# Large Digit Display – 200mm digit height LD-TR with pulse input

For count, rate, total, tachometer, batching applications





#### Description

The 200mm digit height LD-TR displays are ideal for applications where rate or total need to be visible from a distance (rated for up to 100 metres).

A pulse input from an encoder, switch etc. is required for this display. The display can be scaled to display in engineering units such as RPM, Litres, Litres/min etc. The LD-TR can be configured for rate, total (counting etc) or both and will also keep a grand total in totaliser mode which uses a separate reset. The display can be made to count up or to count down from a preset value.

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.

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 200mm LED displays are housed in rugged, IP65 rated, powder coated steel enclosures.







#### **Features**

- 4 digit 200mm Red LED
  Green, Amber or White available to special order
- Visible from 100 metres
- Rate or total display from pulse input
- Configurable for most single output pulse type encoders, switches etc.
- IP65 rated wall mount enclosure, powder coated steel standard, stainless steel optional
- 2 configurable setpoint relays standard rated at 240VAC, 5A into a resistive load, form C
- Relays can be set to operate from rate or total or to activate for a programmable length of time each time a multiple of a total is reached
- Remote reset or programmable automatic reset
- Period display for input signals less than 1kHz
- Pushbutton setup and scaling
- Remote inputs can be configured to one of a wide range of functions including zero, display hold, toggle between rate and total, peak hold, etc.
- Programmable digital filter for rate display
- RS232 or RS485 serial communications optionally available
- The auto-brightness feature for LED displays varies the display brightness to suit the ambient light
- 2 year guarantee
- See separate brochures for 38, 45, 57mm and 100mm display models

LDTR200-4.1-0

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# **Specifications**

Input: 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  $10k\Omega$ 

Sensor supply 5 VDC regulated or 18 to 24VDC unregulated, link selectable (50mA max.)

Microprocessor MC68HC11 CMOS

Ambient temp -10°C to 60°C Humidity 5% to 95%

Display types: 200mm 4 digit red LED (green, amber or white available to special order)

in standard brightness or high contrast version

See separate LD-TR brochures for other display sizes

Power supply: See order code table (type is factory configured)

Power usage: AC supply 50VA max,

(standard brightness) DC supply typically 1.3A at 24VDC for LED displays

(plus current for sensor if on board supply is used)

Outputs (standard): 2 x relays, form C, rated at 240VAC, 5A resistive Outputs (optional): See order code table (type is factory configured)

Relay action: Programmable N.O. or N.C.

Environmental rating: IP65 Weight: 13kg

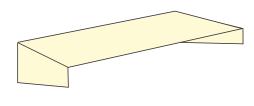
Dimensions: 850 x 360 x 155mm

### **Optional shrouds**

Shroud kits for 200mm displays are made from a single piece of powder coated zinc coated steel to match the metal enclosures.

The overhang of the shroud is 150mm.





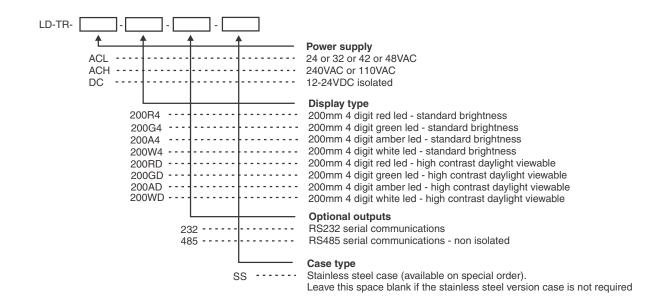
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# LD-TR order codes for 200mm displays

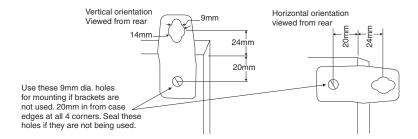
The last two sections are for optional items (if required). Optional outputs are factory configured.



# Mounting brackets

The 200mm models are shipped with 4 metal brackets and mounting hardware.

The diagrams illustrate vertical and horizontal installation of these brackets. If mounting without the brackets, then the 9mm diameter case holes provided for the brackets can be used as alternative mounting holes. If the brackets are not used in mounting, then these holes should be sealed against dust and water.



#### 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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