

# Large Digit Display – 200mm digit height LD-TM universal temperature display

For temperature from RTD or thermocouple sensor or 4-20mA or DCV/mV



## Features

- Visibility rating to 100m
- 4 x 200mm high red LED
- Temperature display from RTD or thermocouple
- Temperature display from 4-20mA or DCV transmitters
- IP65 rated wall mount enclosure
- Dual 4-20mA analog transmission model available
- First analog retransmission, if fitted, can be configured for PI control
- 4 configurable setpoint relays standard 240VAC, 5A, form C
- Relays 1 and 2 can be configured for PI control
- Compatible with a wide range of input sensor types
- Pushbutton setup and calibration
- 2 year guarantee
- Display can be set to show °C or °F symbols
- LD-TM can be configured to display in °C, °F or Absolute
- The auto-brightness feature for LED displays varies the display brightness to suit the ambient light.

## Description

The LD-TM range of large digit displays is designed for use with a wide range of temperature sensors and transmitters.

- Pt100 or Pt1000 RTD sensors
- Type B, E, J, K, N, R, S or T thermocouples
- ±20mV, ±50mV, ±75mV or ±200mV input
- 4-20mA, ±2.5VDC or ±25VDC analog signals  
These inputs are fully scalable and are ideal for 0-1VDC or 0-10VDC signals.

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



## Application

The LD-TM with the 200mm displays will be ideal for those applications where temperature indications need to be visible from a distance of up to 100m. Foundries, smelters, commercial swimming pools, greenhouses, workplaces, coolrooms, chemical processing facilities, and mushroom farms are just some of the possible applications for these large digit displays. The flexibility of the use of thermocouple (type B, E, J, K, N, R, S or T can be selected), Pt100 or Pt1000 temperature sensors, 4-20mA or DCV allows the LD-TM to be used for indication of wide temperature ranges. For other transmitters with analog output the [LD-IV](#) models would be more suitable.

Optional datalogging is available for the LD-TM universal temperature monitor. The option offers 32K, 128K or 512K capacity. The feature includes Windows compatible software that allows graphical display and also allows the data to be formatted for use with other products such as spreadsheets. The feature requires the LD-TM to have serial communications installed.

LDTM200-3.2-0

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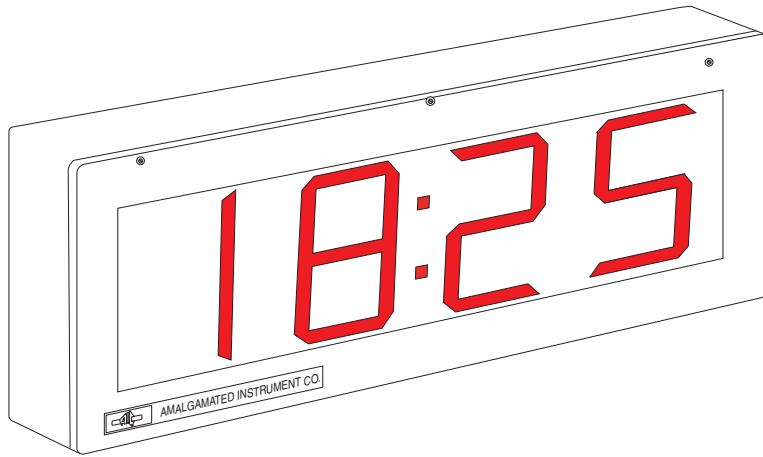
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## Dimensions



Length	850mm
Height	360mm
Depth	155mm
Weight	13kg (packed)

## Technical Specifications

Input types	Pt100 or Pt1000 RTD sensors Type B, E, J, K, N, R, S or T thermocouples 4-20mA, $\pm 2.5$ VDC or $\pm 25$ VDC analog signals
Accuracy	Slidewire 0-1k $\Omega$ to 0-1M $\Omega$ RTD, 4-20mA, DCV, DCmV & slidewire - 0.1% when calibrated
Sample rate	Thermocouples - 0.1% $\pm 1^\circ$ 4-20mA, DCV & DCmV - 4 samples/sec RTD - 2 sample/sec Thermocouple - 1 sample/sec
Microprocessor	MC68HC11 CMOS
Ambient temp	-10°C to 60°C
Humidity	5% to 95%
Outputs	4 x setpoint relays, form C, rated 5A at 240VAC (resistive load) Transmitter supply: 10VDC (50mA max), $\pm 5$ VDC (25mA max), 24VDC (25mA max) or $\pm 12$ VDC (25mA max) link selectable
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
Optional model	Dual 4-20mA retransmission model available

## Order Codes

### Order Codes - no analog retransmission

Order Code	Display	Supply Voltage
LD-TM-ACH-200R4	4 digit LED	110 or 240VAC
LD-TM-ACL-200R4	4 digit LED	24, 32, 42 or 48VAC
LD-TM-DC-200R4	4 digit LED	12-24VDC isolated

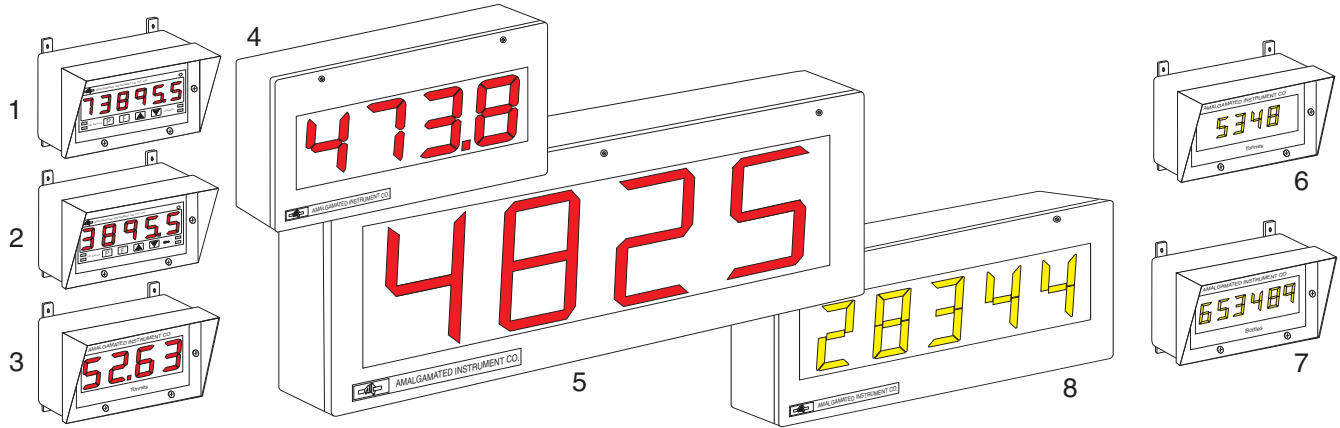
### Order Codes - dual analog retransmission models

Order Code	Display	Supply Voltage
LD-TM-ACH-200R4-AA	4 digit LED	110 or 240VAC
LD-TM-ACL-200R4-AA	4 digit LED	24, 32, 42 or 48VAC
LD-TM-DC-200R4-AA	4 digit LED	12-24VDC isolated

## Options

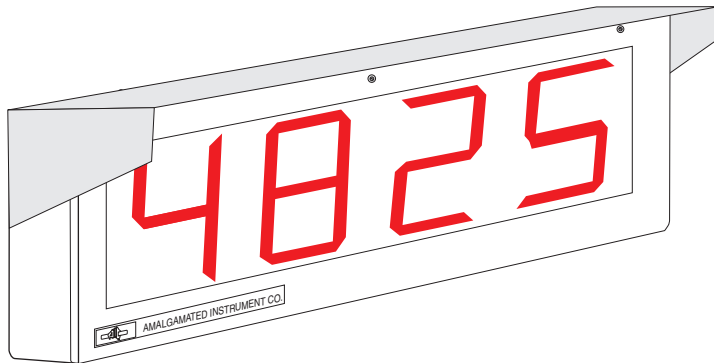
Option Code	Description
LD-OPT-IW-232	RS232 serial comms, non-isolated
LD-OPT-IW-485	RS485 serial comms, non-isolated
LD-OPT-IW-485-I	RS485 serial comms, isolated
LD4-2004-SHROUD	Shroud kit for 200R4 displays
LD-OPT-IW-DL1	Data logger 32K with Windows compatible software
LD-OPT-IW-DL2	Data logger 128K with Windows compatible software
For data logging options - Request separate brochure or download <a href="http://www.aicpl.com.au/brochures/dloadbr.pdf">http://www.aicpl.com.au/brochures/dloadbr.pdf</a>	

## 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			

## Optional shroud

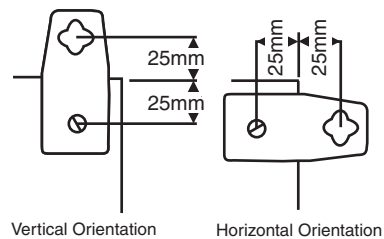


The shroud for the 4 digit 200mm display is shipped as one piece.  
The overhang of the shroud is 150mm.  
The shrouds are zinc coated steel powder coated to match the powder coated, zinc coated steel display enclosures.

## 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

## Mounting brackets



Four mounting brackets are included with all models. The metal case 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 10mm 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.