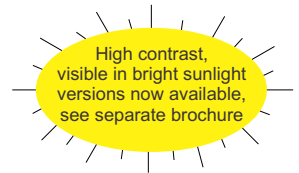# Large Digit Display – 200mm digit height LD-TM universal temperature display

For temperature from RTD or thermocouple sensor or 4-20mA or DCV or mV or 3 wire slidewire

High contrast, visible in bright sunlight versions now available, see separate brochure

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 input

- 3 wire slidewire 1k Ohm to 1M Ohm

Calibration, alarm settings, decimal point etc. are all carried out using the push buttons on the main board of the instrument.

Optional internal datalogging is available. The option offers 32K or 128K capacity. This 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.

This feature requires the LD-TM to have serial communications installed.

The 200mm LED digit displays are housed in rugged, IP65 rated, powder coated zinc coated steel enclosures. Red, Green, Amber or White LED versions available.

A shroud is available for the 200mm displays to provide some protection from direct light if required.

Features

- Visibility rating to 100m

- 4 x 200mm high Red LED
  Green, Amber or White available to special order

- Input from a wide range of sensors

- Measurement in Degrees C or Degrees F or Degrees K (absolute)

- Can be configured to show display units
  i.e. ° or C or F or °C or °F

- IP65 rated wall mount enclosure, powder coated steel standard, stainless steel optional

- 4 configurable setpoint relays standard rated at 240VAC, 5A into a resistive load, form C

- Pushbutton setup and calibration

- Remote inputs can be configured to one of a wide range of functions including display switching, display hold, 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, 57, 58mm and 100mm display models

LDTM200-3.9-0

Specifications

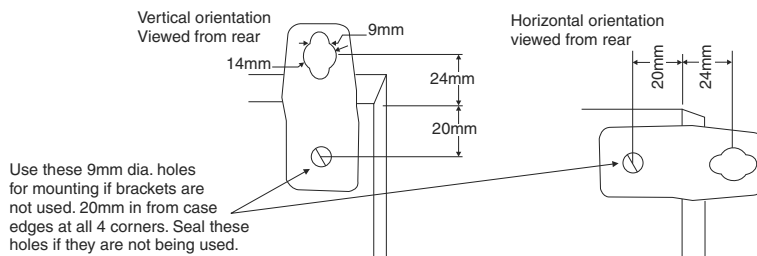|	
Input:	Pt100 or Pt1000 RTD sensors or Type B, E, J, K, N, R, S or T thermocouple or $\pm 20mV$, $\pm 50mV$, $\pm 75mV$ or $\pm 200mV$ or 4-20mA, $\pm 2.5VDC$ or $\pm 25VDC$ analog signals or 3 wire slidewire 1k Ohm to 1M Ohm
Accuracy:	RTD, 4-20mA, DCV, DCmV, Slidewire 0.1% of full scale when calibrated Thermocouples 0.1% of full scale $\pm 1°$
Sample rate:	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%
Display type:	200mm red led (green, amber or white available to special order) in either standard brightness or high contrast version See separate LD-TM brochures for other display sizes
Outputs (standard):	4 x relays, form C, rated at 240VAC, 5A resistive Relays 1 and 2 configurable for setpoint or PI control
Outputs (optional):	See order code table (type is factory configured)
Relay action:	Programmable N.O. or N.C.
Environmental rating:	IP65
Size:	850 x 360 x 155mm
Weight:	13kg
Power Supply:	See order code table(type is factory configured)
Power Consumption: (standard brightness)	AC supply: 50VA max, DC supply: depends on supply voltage, typically 1.3A for 24VDC

Optional shrouds

Shroud kits for 200mm displays consist of 2 side panels, a top plate and fixing hardware. The overhang of the shroud is 150mm. The shrouds are of powder coated zinc coated steel to match the metal enclosures.
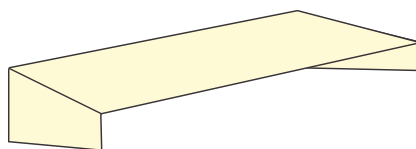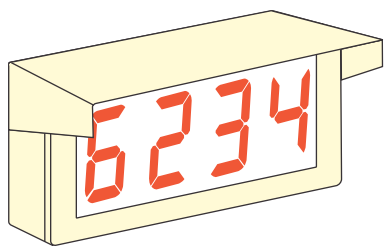
Mounting brackets

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.

Vertical orientation
Viewed from rear
9mm
14mm
24mm
20mm

Use these 9mm dia. holes for mounting if brackets are not used. 20mm in from case edges at all 4 corners. Seal these holes if they are not being used.

Horizontal orientation
viewed from rear
20mm
24mm

LD-TM order codes for 200mm displays
The last two sections are for optional items (if required).
Optional outputs are factory configured. Analog outputs cannot be retrofitted.

LD-TM- ▢ - ▢ - ▢ - ▢

Power supply
ACL — 24 or 32 or 42 or 48VAC
ACH — 240VAC or 110VAC
DC — 12-24VDC isolated

Display type
200R4 — 200mm 4 digit red led - standard brightness
200G4 — 200mm 4 digit green led - standard brightness
200A4 — 200mm 4 digit amber led - standard brightness
200W4 — 200mm 4 digit white led - standard brightness
200RD — 200mm 4 digit red led - high contrast daylight viewable
200GD — 200mm 4 digit green led - high contrast daylight viewable
200AD — 200mm 4 digit amber led - high contrast daylight viewable
200WD — 200mm 4 digit white led - high contrast daylight viewable

Optional outputs
232 — RS232 serial communications
485 — RS485 serial communications - non isolated
485 - I — RS485 serial communications - isolated
DL1 - 232 — 32k internal datalogger plus RS232 serial communications
DL1 - 485 — 32k internal datalogger plus RS485 serial communications - non isolated
DL1 - 485 - I — 32k internal datalogger plus RS485 serial communications - isolated
DL2 - 232 — 128k internal datalogger plus RS232 serial communications
DL2 - 485 — 128k internal datalogger plus RS485 serial communications - non isolated
DL2 - 485 - I — 128k internal datalogger plus RS485 serial communications - isolated
AA — Dual 4-20mA output
AA - 232 — Dual 4-20mA output plus RS232 serial communications
AA - 485 — Dual 4-20mA output plus RS485 serial communications - non isolated
AA - 485 - I — Dual 4-20mA output plus RS485 serial communications - isolated
AA - DL1 - 232 — Dual 4-20mA output plus 32k internal datalogger plus RS232 serial communications
AA - DL1 - 485 — Dual 4-20mA output plus 32k internal datalogger plus RS485 serial communications - non isolated
AA - DL1 - 485 - I — Dual 4-20mA output plus 32k internal datalogger plus RS485 serial communications - isolated
AA - DL2 - 232 — Dual 4-20mA output plus 128k internal datalogger plus RS232 serial communications
AA - DL2 - 485 — Dual 4-20mA output plus 128k internal datalogger plus RS485 serial communications - non isolated
AA - DL2 - 485 - I — Dual 4-20mA output plus 128k internal datalogger plus RS485 serial communications - isolated

Case type
SS — Stainless steel case (available on special order).
Leave this space blank if the stainless steel version case is not required

Applications/input types available with large digit display models - see individual brochures

- 8 channel scanning, RTD, Thermocouple and 4-20mA/DCV input versions available
- 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 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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