

# Large digit displays - 38, 45 or 57mm digit height models

## LD-LN Analog input lineariser

The with the 38, 45 & 57mm displays are ideal for applications where load, pressure, weight or position indications need to be visible from a distance. The linearising displays are designed for applications involving a non linear input. An example is displaying the contents of a cylindrical tank lying on its side. Up to 50 linearising points can be entered. The display can be scaled to display in different engineering units such as metres, percentage (level or capacity) or tonnes. The zero & tare functions available on the remote inputs are very valuable in position sensing or batching applications.

### Displays



6 digit 38mm high LED (visibility to 18m)



5 digit 45mm high LED (visibility to 20m)

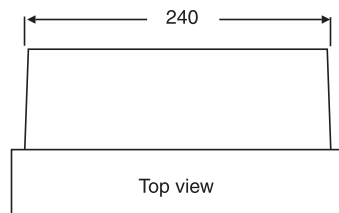
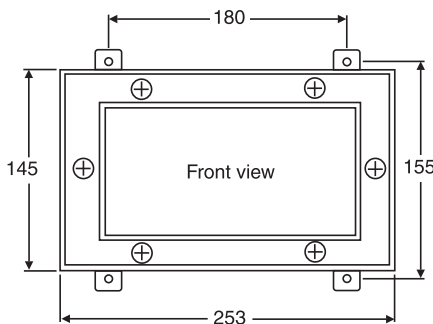


4 digit 57mm high LED (visibility to 25m)

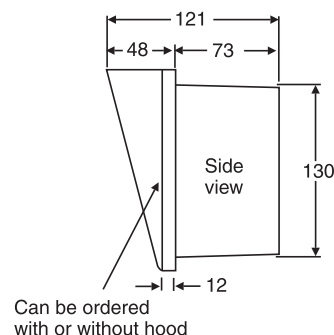


### Features

- 50 point lineariser table (X & Y points)
- $\pm 20\text{mA}$ , 4-20mA,  $\pm 2.5\text{V}$ ,  $\pm 25\text{V}$  or slidewire input
- 6 x 38mm LED - visibility rating to 18m
- 5 x 45mm LED - visibility rating to 20m
- 4 x 57mm LED - visibility rating to 25m
- Scalable display from analog input
- IP65 rated wall mount enclosure
- Dual 4-20mA analog retransmission model available, the first analog output can be configured for retransmission or PI control
- 4 configurable setpoint relays rated at 240VAC, 5A into a resistive load, form C. Relays 1 & 2 can be set for alarm or PI control operation
- Panel mount kit available
- Pushbutton setup and calibration
- 2 calibration memories can be stored
- 3 configurable remote inputs as standard
- Remote inputs can be configured to one of a wide range of functions including zero, tare, peak memory, etc.
- Transmitter supply 10VDC ( $\pm 5\text{VDC}$ ), 24VDC ( $\pm 12\text{VDC}$ ) standard
- Programmable digital filter
- RS232 or RS485 serial communications optionally available
- Inbuilt data logger 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 100mm and 200mm display models



All dimensions in mm



LDLN384557-3.5-0

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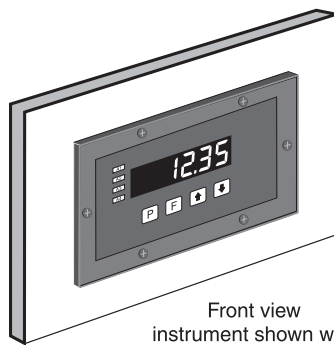
## Specifications

Input:	Link selectable $\pm 20\text{mA}$ , 4-20mA or $\pm 2.5\text{VDC}$ , $\pm 25\text{VDC}$ (ideal for 0 to 10VDC transmitters) or Slidewire: 0-1k $\Omega$ to 0-1M $\Omega$ potentiometer
Lineariser points:	Up to 50 points can be stored
Accuracy:	Better than 0.1% when calibrated
Sample rate:	5 samples/second
ADC resolution:	1 in 32.000
ADC conversion:	Sigma delta
Microprocessor:	MC68HC11 CMOS
Ambient temp:	LED models -10°C to 60°C
Humidity:	5% to 95% non condensing
Display types:	38mm 6 digit red LED with alarm annunciators and 4 way keypad 45mm 5 digit red LED with alarm annunciators and 4 way keypad 57mm 4 digit red LED See separate LD-IV brochures for other display sizes
Power supply:	See order code table (type is factory configured)
Power usage:	AC supply 15VA max, DC supply typically 100mA at 24VDC for 38 & 45mm, 250mA at 24VDC for 57mm for instrument with no output options
Outputs (standard):	4 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. (relays 1 & 2 can be set for PI control)
Environmental rating:	IP65
Weight:	1.3 kg
Dimensions:	See front page

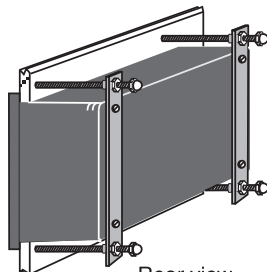
## Panel mounting

The instrument is provided with removable surface (e.g.wall) mounting tabs mounting. A panel mount kit is optionally available which allows the instrument to be mounted in a panel cut out. If required the instrument can be optionally supplied with the front hood removed to allow a more flush panel mount fitting. Part number for panel mount kit: LD-MTG-PM-KIT

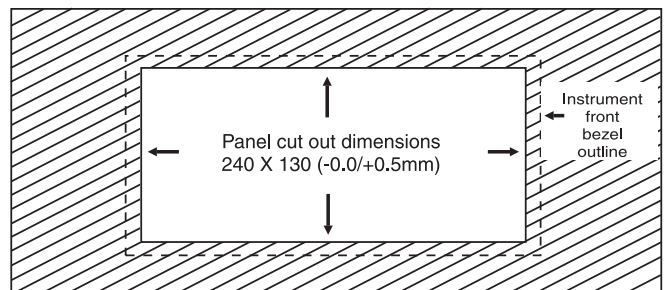
Part number for hood removal: LD-HOOD-REMOVAL



Front view  
instrument shown with  
optional case hood removed  
case for flush mounting



Rear view  
showing optional  
panel mount brackets  
and screws



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## LD-LN order codes for 38, 45 or 57mm displays

The last section is for optional outputs (if required).

Optional outputs are factory configured. Analog outputs cannot be retrofitted.

LD-LN- [ ] - [ ] - [ ]

**Power supply**  
240 ----- 240VAC  
110 ----- 110VAC  
ACD ----- 24-48VAC  
DC ----- 12-48VDC isolated

**Display type**  
38R6 ----- 6 digit 38mm red LED - with front pushbuttons and alarm annunciators  
45R5 ----- 5 digit 45mm red LED - with front pushbuttons and alarm annunciators  
57R4 ----- 4 digit 57mm red LED  
See separate brochures for 100 and 200mm display versions

**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

## Applications/input types available with large digit display models

- Analog input, process transmitters etc.  $\pm 20\text{mA}$ , 4-20mA or  $\pm 2.5\text{VDC}$ ,  $\pm 25\text{VDC}$ , slidewire
- 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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