

# Economical Large Digit Display

## LD4-LN 50 point lineariser

4 x 57mm high LED digits



### Features

- 50 point lineariser with EEPROM storage of lineariser table values
- 57mm high digits (visible to 25m)
- High brightness LED display
- Displays in engineering units
- Pushbutton calibration and setup
- 16VDC unregulated transmitter supply (AC supply models)
- 240VAC, 110VAC, 12 to 16VAC powered or DC (15 to 24V non isolated) powered or optional isolated DC (12 to 24 or 28 to 48VDC) factory configured
- Digital filter, improves stability
- Two alarm/control relay outputs (5A)
- 2 year guarantee
- Rugged, weatherproof, IP65 rated, housings.
- Remote input to perform special functions e.g. zero, tare, display toggle, brightness level switching, high/low memory, peak hold, display hold, setpoint only access or security lockout
- Optional serial communications, analog retransmission, extra relays, panel mounting kit and hood removal.

### Description

Model LD4-LN is a high visibility large digit lineariser display for up to 50 linearising points (X and Y values). The LD4-LN will accept inputs of  $\pm 20\text{mA}$ ,  $4\text{-}20\text{mA}$ ,  $\pm 100\text{mV}$ ,  $\pm 1\text{V}$ ,  $\pm 10\text{V}$  or  $\pm 100\text{V}$  (user selectable via links). From these inputs the display can be scaled to read in engineering units e.g. "Litres", "mm" etc. The instruments feature flexible pushbutton scaling and programming.

An 16VDC unregulated transmitter supply is provided as standard on AC supply models. Each instrument is supplied with a two control/alarm setpoint relays. Optional outputs include isolated analog retransmission ( $4\text{-}20\text{mA}$ ,  $0\text{-}1\text{V}$  or  $0\text{-}10\text{V}$ , selectable) or isolated serial retransmission (RS232 or RS485 with choice of ASCII or Modbus RTU protocols, factory configured). An isolated 24VDC ( $\pm 12\text{V}$ ) transmitter supply output is also optionally available.

An external input is configurable to perform one of various functions e.g. zero, tare, display toggle (from live to linearised display), brightness level switching, high/low memory, peak hold, display hold, setpoint only access or security lockout. This input can also be used to allow fast and easy access to the alarm setpoints.

The 57mm LED display is housed in a rugged, IP65 rated, UV stabilised ASA enclosure.



LD4LN-2.2-0

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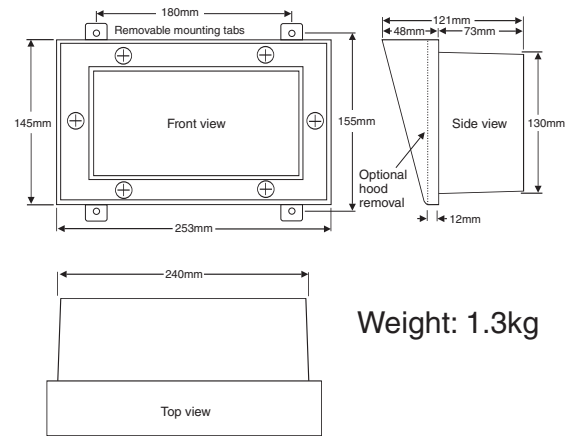
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## Technical Specifications

Input Types:	$\pm 20\text{mA}$ , 4-20mA, $\pm 100\text{mV}$ , $\pm 1\text{V}$ , $\pm 10\text{V}$ or $\pm 100\text{VDC}$ , link selectable
Linearising:	Up to 50 points, X and Y values
Accuracy:	0.1% of full scale when calibrated
Input impedance:	$80\Omega$ nominal (4-20mA or $\pm 20\text{mA}$ input) $1\text{M}\Omega$ (DC Volts input)
Sample rate:	4 per second
ADC resolution:	1 in 20,000
Microprocessor:	MC68HC11 CMOS
Ambient Temp:	$-10^\circ\text{C}$ to $60^\circ\text{C}$
Humidity:	5% to 95% non condensing
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 (2Apeak) for 24V using non isolated power supply

## Dimensions



Weight: 1.3kg

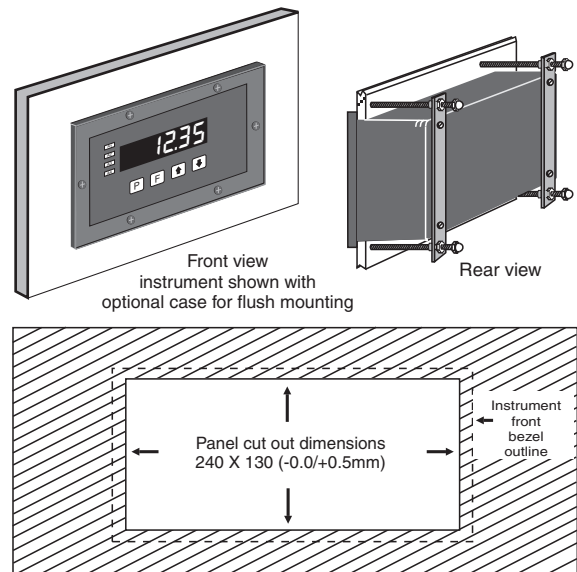
## Order Codes

Order Code	Display	Supply Voltage
LD4-LN-240-574	4 x 57mm red LED	240VAC
LD4-LN-110-574	4 x 57mm red LED	110VAC
LD4-LN-DCN-574	4 x 57mm red LED	15-24VDC non isolated
LD4-LN-DC-574	4 x 57mm red LED	12-48VDC isolated

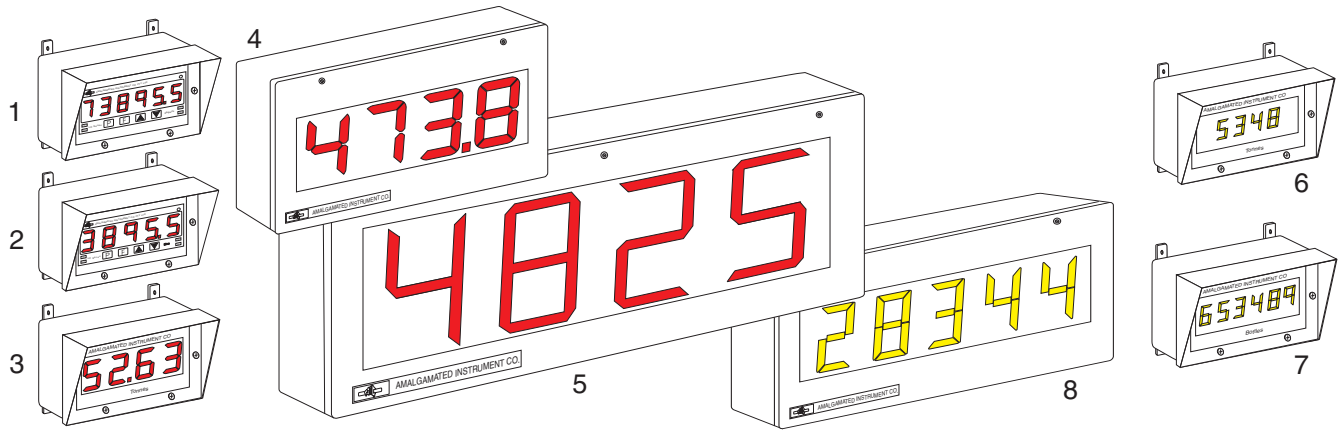
## Options

Option Code	Description
LD4-OPT-12	24VDC transmitter supply ( $\pm 12\text{VDC}$ )
LD4-OPT-C2	RS232 serial comms, non-isolated
LD4-OPT-C4	RS485 serial comms, non-isolated
LD4-OPT-A	Isolated analog retransmission 4-20mA, 0-1VDC or 0-10VDC selectable
LD4-OPT-RR	2 extra setpoint relays
LD-MTG-PM-KIT	Panel mount kit incl brackets & screws
LD-HOOD-REMOVAL	Front hood removal

## Panel Mounting Options



## 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