

# Large Display Strain Gage

Red Lion Automation Series



## ▶▶▶ Large Display for Strain Gage Inputs

Red Lion's Large Display Strain Gage (LDSG) is the latest addition to our Large Display portfolio for advanced control and communication of weight measurement.

Available in both large 2-1/4 and 4-inch display sizes, the LDSG accepts most load cell and strain gage inputs and communicates real-time weight information to a database or management system for accurate monitoring, storage and reporting. By using alarming setpoints and a display that is readable from distances up to 180 feet away, operators are automatically alerted and can easily see when weight limits are being approached or exceeded.

With easy, push-button setup and NEMA4X/IP64 sealed enclosure design, LDSG implementation is simple. Once installed, weight values can be collected in real time and used later via its RS232/RS485 serial communication ports. The end result provides the reliability and ease of use required to improve efficiency and reduce costs by increasing weight measurement accuracy.



### APPLICATIONS

- > Food & Beverage
- > Truck & Crane Scales
- > Cement Mixing & Transport
- > Force & Concrete Testing
- > Construction

### PRODUCT HIGHLIGHTS

- > 2-1/4 and 4-inch red LED display options
- > Accepts strain gage, load cells and pressure inputs
- > Dual setpoint control
- > Rugged, aluminum NEMA 4X case construction
- > RS232/RS485 communication

### FEATURES & BENEFITS

- > 2-1/4 and 4-inch red LED display options
  - Readable from up to 180 feet
- > Accepts a variety of inputs
  - Strain gage
  - Load cells
  - Pressure
- > NEMA 4X sealed enclosure
  - Water tight wiring connectors
  - Pressure vent for rapid temperature swings
  - Aluminum constructed case
- > Reliable communication
  - RS232/RS485 serial ports
  - Crimson® 2.0 programmable

industrial

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# ▶▶▶ Large Display Strain Gage Specifications

## DISPLAY PROPERTIES

5 digit, 2.25" (57 mm) or 4" (101 mm) intensity adjustable  
Red LED (-99999 to 99999)

## POWER CONNECTION

AC Power: 40 to 250 VAC 50/60 Hz, 27 VA  
DC Power: 21.6 to 250 VDC, 12 W  
Isolation: 2300 Vrms for 1 min.; Power IN to all inputs and outputs

## INPUT RANGES

±24 mVDC  
±240 mVDC

## CONNECTION TYPE

4-wire bridge (differential)  
2-wire (single-ended)

## BRIDGE EXCITATION

Jumper Selectable: 5 VDC @ 65 mA max., ±2%  
10 VDC @ 125 mA max., ±2%

## COMMUNICATIONS

Type: RS485 or RS232  
Isolation To Sensor & User Input Commons: 500 Vrms for 1 min.  
Working Voltage: 50 V. Not Isolated from all other commons.  
Data: 7/8 bits  
Parity: no, odd or even  
Baud Rate: 300 to 38.4 K  
Bus Address: Selectable 0 to 99, Max. 32 meters per line (RS485)

## OUTPUT

Type: Dual FORM-C relay  
Isolation To Sensor & User Input Commons: 1400 Vrms for 1 min.  
Working Voltage: 150 Vrms  
Contact Rating: 5 amps @ 120/240 VAC or 28 VDC (resistive load),  
1/8 H.P. @ 120 VAC (inductive load)  
Life Expectancy: 100,000 minimum operations  
Response Time:  
Turn On Time: 4 msec maximum  
Turn Off Time: 4 msec maximum

## CERTIFICATIONS & COMPLIANCES

CE Approved:  
EN 61326-1 Immunity to Industrial Locations  
Emission CISPR 11 Class A  
Safety requirements for electrical equipment for measurement control,  
and laboratory use:  
EN 61010-1: General Requirements  
EN 61010-2-030: Particular Requirements for Testing and  
Measuring Circuits  
Type 4X Enclosure rating (Face only)  
IP65 Enclosure rating (Face only)  
*Refer to EMC Installation Guidelines section of the bulletin for  
additional information.*

## ENVIRONMENTAL

Operating temperature: 0 to 65° C  
Storage temperature: -40 to 70° C  
Operating and storage humidity: 0 to 85% max. RH (non-condensing)  
Vibration to IEC 68-2-6: Operational 5-150 Hz, 2 g (1g relay)  
Shock to IEC 68-2-27: Operational 30 g (10 g relay)  
Altitude: Up to 2,000 meters

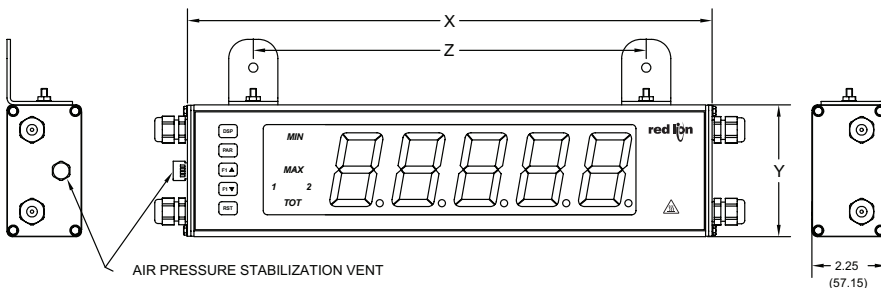
## MECHANICAL

Construction: Aluminum enclosure, and steel side panels with textured  
black polyurethane paint for scratch and corrosion resistance  
protection. Meets Type 4X/IP65 specifications. Installation Category II,  
Pollution Degree 2.  
Weight: LD2 - 4.5 lbs (2.04 kg)  
LD4 - 10.5 lbs (4.76 kg)

## ORDERING INFORMATION

PART NUMBER	MODEL	DESCRIPTION
LD2SG5P0	LD	2 Preset Strain Gage Input; 2.25" High 5 Digit Red LED
LD4SG5P0	LD	2 Preset Strain Gage Input; 4" High 5 Digit Red LED
LDPLUG00	LD Plug	Panel Plug for LD models

## DIMENSIONS In inches (mm)



PART NUMBER	X (Length)	Y (Height)	Z (Center)
LD2	16 (406.4)	4 (101.6)	12 (304.3)
LD4	26 (660.4)	7.875 (200)	22 (558.8)



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