

# LARGE DISPLAY METER FOR STRAIN GAGE BRIDGE OR PROCESS INPUTS



## LDP63000 Series



LDP63000-E, \$475,  
shown smaller  
than actual size.

Starts at  
**\$475**



- ✓ Large 38 mm (1.5") LED Display Readable to 21 m (70')
- ✓ Various Input Types Available
- ✓ Alarms, Analog Outputs, and Communication Optional
- ✓ User Scalable Display
- ✓ 5 Digit Display, -19999 to 99999 Counts
- ✓ Universal AC/DC Powered
- ✓ PC Software for Meter Configuration
- ✓ NEMA 4X IP65 Front Face
- ✓ 121 x 254 mm (4.75 x 10") Bezel
- ✓ Field Installable Output Cards (Optional)

The LDP63000 Series is a versatile display that can increase productivity by offering the plant floor or production area a large visual display of their current status. The LDP63000 display accepts various analog inputs through the use of input modules which allow the unit to adapt to most any application. Process and strain inputs can be field scaled over a range of -19999 to 99999 counts with floating decimal point. Additional plug-in option cards can add alarms, analog output, and communication/bus capabilities, making the LDP63000 a truly intelligent panel meter.

### SPECIFICATIONS

**Display:** 38 mm (1.5") Red LED, 5-Digit: (-19999 to 99999)

**Power Requirements:** 85 to 250 Vac, 50/60 Hz, 18 VA ("LV" low voltage option: 11 to 36 Vdc or 24 Vac  $\pm 10\%$ , 50/60 Hz, 14 W)

**Excitation:**

**Process:** 24 Vdc @ 50 mA,  $\pm 5\%$  regulated

**Strain:** Selectable 5 Vdc @ 65 mA or 10 Vdc @ 125 mA ( $\pm 2\%$ )

**Keypad:** Five tactile membrane switches integrated into the front panel

**Operating Temperature Range:** 0 to 50°C (32 to 122°F)

**Storage Temperature Range:** -40 to 60°C (-40 to 140°F)

**Operating and Storage Humidity:** 0 to 85% max. RH (non-condensing)

**Altitude:** Up to 2000 meters

**Enclosure Rating:** IP65 Face only

**Connections:** High compression cage-clamp terminal blocks

**Construction:** Steel with textured black polyurethane paint

**Dimensions:** 254 x 120.7 x 121.2 mm (10.0 x 4.75 x 4.77")



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**Panel Cutout:** 236 x 92.2 mm  
(9.29 x 3.63")  
**Depth Behind Panel:** 118.1 mm (4.65")  
**Panel Thickness:** 1.57 to 9.5 mm  
(0.060 to 0.375")  
**Weight:** 1.2 kg (2.7 lb)

## OPTION BOARD

### COMMUNICATIONS CARDS RS232/RS485

**Isolation to Sensor and User Input  
Commons:** 500 Vrms for 1 min  
**Working Voltage:** 50V (Not isolated from all other commons)  
**Baud Rate:** 300 to 19.2k  
**Data Format:** 7/8 bits; odd, even, or no parity working Voltage: 50V

### RS232 Communication Card

**Type:** RS232 half duplex

### RS485 Communication Card

**Type:** RS485 multi-point balanced interface  
**Bus Address:** 0 to 99, max 32 meters per line  
**Transmit Delay:** Selectable; 2 to 50 msec or 50 to 100 msec

### MODBUS®

**Type:** RS485; RTU and ASCII MODBUS modes

**Isolation to Sensor and User Input  
Commons:** 500 Vrms for 1 minute

**Working Voltage:** 50V (Not isolated from all other commons)

**Baud Rates:** 300 to 38400

**Data:** 7/8 bits

**Parity:** No, Odd, or Even

**Addresses:** 1 to 247

**Transmit Delay:** Programmable

### ANALOG OUTPUT CARD

**Types (User Selectable):** 0 to 20 mA, 4 to 20 mA and 0 to 10 Vdc

**Isolation to Sensor and User Input  
Commons:** 500 Vrms for 1 min

**Working Voltage:** 50V (Not isolated from all other commons)

**Accuracy:** 0.17% FS (18 to 28°C); 0.4% FS (0 to 50°C)

**Resolution:** 1/3500

**Compliance:**

**10 Vdc:** 10 kΩ load min

**20 mA:** 500 Ω load max

**Update Time:** 200 msec max to within 99% of final readout value (digital filter and internal zero correction disabled) 700 msec max (digital filter disabled, internal zero correction enabled)

### SETPOINT OUTPUT CARDS

(Four types of field installable cards)

**Response Time:** 200 msec max to within 99% of final readout value (digital filter and internal zero correction disabled) 700 msec max (digital filter disabled, internal zero correction enabled)

### Dual Relay Card (LDP6-CDS10):

**Type:** Two FORM-C relays

**Isolation to Sensor and User Input  
Commons:** 2000 Vrms for 1 min

**Working Voltage:** 250V

**Contact Rating:** One relay energized: 5 amps @ 120/240 Vac or 28 Vdc (resistive load), 1/8 HP @ 120 Vac, inductive load. Total current with both relays energized not to exceed 5 A

Life expectancy: 100 K cycles min. at full load rating. External RC snubber extends relay life for operation with inductive loads

### Quad Relay Card (LDP6-CDS20):

**Type:** Four FORM-A relays

**Isolation to Sensor and User Input  
Commons:** 2300 Vrms for 1 min

**Working Voltage:** 250V

**Contact Rating:** One Relay Energized: 3 amps @ 250 Vac or 30 Vdc (resistive load), 1/10 HP @ 120 Vac, inductive load. Total Current With All Four Relays Energized not to exceed 4 A

**Life Expectancy:** 100 K cycles min at full load rating. External RC snubber extends relay life for operation with inductive loads

### Quad Sinking Open Collector (LDP6-CDS30):

**Type:** Four isolated sinking NPN transistors.

**Isolation to Sensor and User Input  
Commons:** 500 Vrms for 1 min

**Working Voltage:** 50V Not Isolated from all other commons

**Rating:** 100 mA max @ VSAT = 0.7V max VMAX = 30V

### Quad Sourcing Open Collector (LDP6-CDS40):

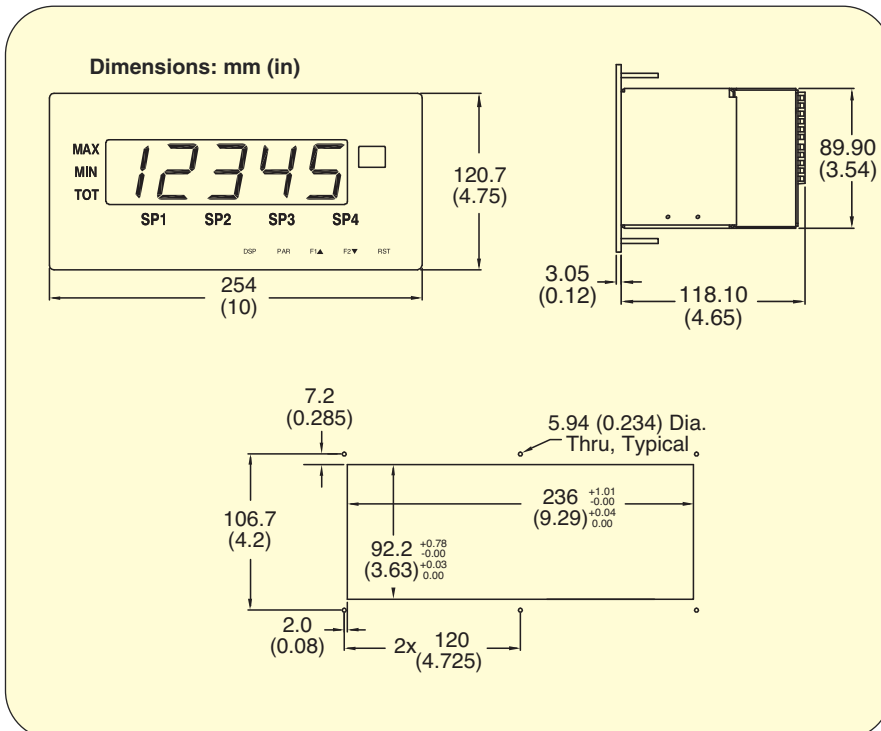
**Type:** Four isolated sourcing PNP transistors

**Isolation to Sensor and User Input  
Commons:** 500 Vrms for 1 min

**Working Voltage:** 50V (Not Isolated from all other commons)

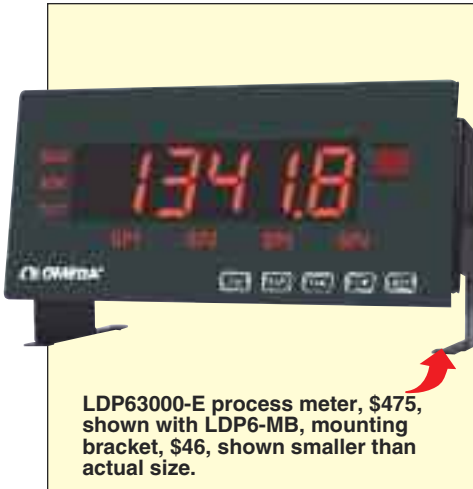
**Rating:** Internal supply: 24 Vdc ±10%, 30 mA max total all four

**External supply:** 30 Vdc max, 100 mA max each output



Recommended Reference Book:  
 Process Control,  
**GE-2515, \$59**  
 See Section Y  
 For Additional Books





LDP63000-E process meter, \$475, shown with LDP6-MB, mounting bracket, \$46, shown smaller than actual size.

#### PROCESS INPUTS

INPUT RANGE	ACCURACY (18 TO 28°C)	ACCURACY (0 TO 50°C)	IMPEDANCE/ COMPLIANCE	MAX CONTINUOUS OVERLOAD	DISPLAY RESOLUTION
20 mA (-2 to 26 mA)	0.03% of rdg +2 $\mu$ A	0.12% of rdg +3 $\mu$ A	20 $\Omega$	150 mA	1 $\mu$ A
10 Vdc (-1 to 13 Vdc)	0.03% of rdg +2 mV	0.12% of rdg +3 mV	500 k $\Omega$	300V	1 mV

#### STRAIN GAGE BRIDGE INPUTS

INPUT RANGE	ACCURACY (18 TO 28°C)	ACCURACY (0 TO 50°C)	IMPEDANCE/ COMPLIANCE	MAX CONTINUOUS OVERLOAD	DISPLAY RESOLUTION
$\pm$ 24 mVdc	0.02% of rdg +3 $\mu$ V	0.07% of rdg +4 $\mu$ V	100 M $\Omega$	30V	1 $\mu$ V
$\pm$ 240 mVdc	0.02% of rdg +30 $\mu$ V	0.07% of rdg +40 $\mu$ V	100 M $\Omega$	30V	10 $\mu$ V

**AVAILABLE FOR FAST DELIVERY!**

### To Order (Specify Model Number)

MODEL NO.	PRICE	DESCRIPTION
LDP63000-S	\$610	Large display meter, strain gage bridge inputs, 85 to 250 Vac power
LDP63000-S-LV	640	Large display meter, strain gage bridge inputs, 11 to 36 Vdc/24 Vac
LDP63000-E	475	Large display meter, process inputs, 85 to 250 Vac power
LDP63000-E-LV	500	Large display meter, process inputs, 11 to 36 Vdc/24 Vac

#### OPTIONAL PLUG-IN OUTPUT CARDS (FIELD INSTALLABLE)

MODEL NO.	PRICE	DESCRIPTION
<b>SETPOINT ALARMS (ONLY 1 ALARM CARD CAN BE INSTALLED INTO BASE METER)</b>		
LDP6-CDS10	\$37	Dual setpoint relay output card
LDP6-CDS20	28	Quad setpoint relay output card
LDP6-CDS30	37	Quad setpoint sinking open collector output card
LDP6-CDS40	37	Quad setpoint sourcing open collector output card
<b>ANALOG OUTPUT</b>		
LDP6-CDL10	\$74	Analog output card
<b>COMMUNICATIONS (ONLY 1 COMMUNICATIONS CARD CAN BE INSTALLED INTO BASE METER)*</b>		
LDP6-CDC10	\$48	RS485 Serial communications output card with terminal block
LDP6-CDC1C	48	Extended RS485 Serial communications output card with dual RJ11 connector
LDP6-CDC20	48	RS232 Serial communications output card with terminal block
LDP6-CDC2C	48	Extended RS232 Serial communications output card with 9-Pin D connector
LDP6-CDC40	58	Modbus communications card
LDP6-CDC4C	58	Extended modbus communications card with dual RJ11 connector

#### ACCESSORIES (FIELD INSTALLABLE)

MODEL NO.	PRICE	DESCRIPTION
LDP6-ENC9	\$148	NEMA 4 (IP65) enclosure
LDP6-SHR	43	Shroud
LDP6-MB	46	Mounting bracket

Comes complete with mounting bracket and operator's manual.

**Adding Option Cards:** Meters can be fitted with up to 3 optional plug-in cards. However, only 1 card from each function type can be installed at a time. The function types include Setpoint Alarms, Communications, and Analog Output. The cards can be installed initially or at a later date. Each optional plug-in card is shipped with installation and programming instructions.

**Ordering Example:** LDP63000-S, large display meter for strain gage bridge inputs, 85 to 250 Vac and LDP6-CDL10 analog output card, \$610 + 74 = \$684.



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