



# 1/8 DIN Digital Panel Meters For Process Inputs

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DP63800-E Starts at \$243



- ✓ Process Input
- ✓ 5-Digit, 14.2 mm (0.56") LED
- ✓ Green Display or Red Sunlight-Readable Display
- ✓ 20 mA or 10 Vdc Input
- ✓ Field-Upgradeable Option Cards
- ✓ AC and DC Powered Versions
- ✓ NEMA 4X (IP65)



DP63800-E, \$243, shown larger than actual size.

The DP63800 Series panel meters offer many features and performance capabilities to suit a wide range of industrial applications. Models include universal DC process inputs. The optional plug-in output cards allow the opportunity to configure the meter for present applications while providing easy upgrades for future needs. The meters have a bright 14.2 mm (0.56") LED display. The unit is available with a red, sunlight-readable or a standard green LED. The intensity of display can be adjusted from dark-room- to sunlight-readable, making it ideal for viewing in variable light applications.

The meters provide a max and min reading memory with programmable capture time. The capture time is used to prevent detection of false max or min readings which may occur during start-up or unusual process events.

The meters have 4 setpoint outputs, implemented on plug-in option cards. The plug-in cards provide dual form "C" relays (5 A), quad form "A" (3 A), or either quad-sinking or quad-sourcing open collector logic outputs. The setpoint

alarms can be configured to suit a variety of control and alarm requirements. Communication and bus capabilities are also available as option cards. These include RS232, RS485, and MODBUS®.

## Specifications

**Display:** 5-digit, 14.2 mm (0.56") red sunlight-readable or standard green LEDs, (-19999 to 99999)

### Power:

#### AC Versions:

**AC Power:** 85 to 250 Vac, 50/60 Hz, 15 VA

**Isolation:** 2300 Vrms for 1 min to all inputs and outputs

**DC Power:** 11 to 36 Vdc, 11 W

**AC Power:** 24 Vac, ± 10%, 50/60 Hz, 15 VA

**Isolation:** 500 Vrms for 1 min to all inputs and outputs (50V working)

**Keypad:** 3 programmable function keys, 5 keys total

**A/D Converter:** 16-bit resolution

### Update Rates

**A/D Conversion Rate:** 20 readings/s

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

**Display Update Rate:** 1 to 20 updates/s

### Setpoint Output On/Off Delay Time:

0 to 3275 seconds

**Analog Output Update Rate:** 0 to 10 s

### Max/Min Capture Delay Time:

0 to 3275 seconds

**Memory:** Non-volatile EEPROM retains all programmable parameters and display values

### Environmental Conditions

#### Operating Temperature Range:

0 to 50°C (32 to 122°F) [0 to 45°C (32 to 113°F) with all 3 plug-in cards installed]

#### 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 m (6562')

**Connections:** High-compression, cage-clamp terminal block

**Construction:** This unit is rated for NEMA 4X (IP65) outdoor use, IP20 touch-safe, Installation Category II, Pollution Degree 2, 1-piece bezel/case, flame-resistant, synthetic rubber keypad—panel gasket and mounting clip included

**Weight:** 295 g (10.4 oz)

### Excitation Power

**Transmitter Power:** 24 Vdc, ±5%, regulated, 50 mA max

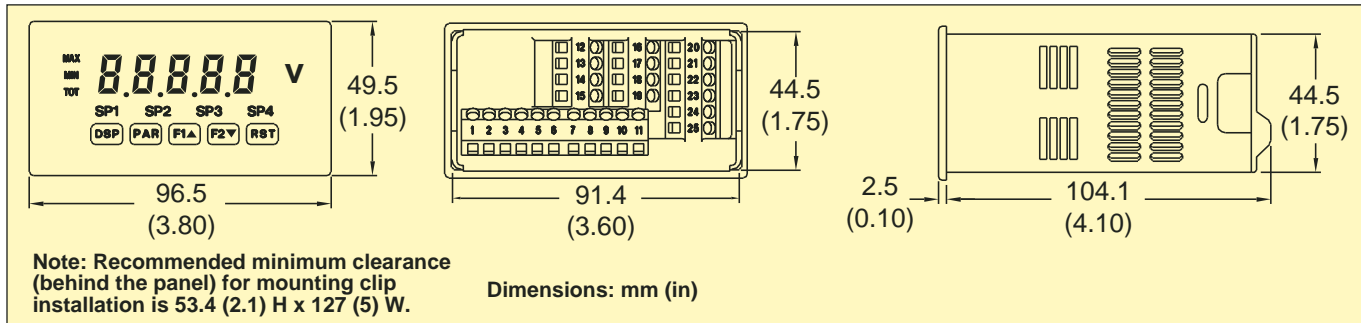
**Output Modules:** For complete specifications, see LDP63100 Series, page M-100

## 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 µA	0.12% of rdg + 3 µA	20 Ω	150 mA	1 µA
10 Vdc (-1 to 13 Vdc)	0.03% of rdg + 2 mV	0.12% of rdg + 3 mV	500 Ω	300V	1 mV



\* After 20 minute warm-up. Accuracy is specified in 2 ways: accuracy over an 18 to 28°C (64 to 82°F) with a 10 to 75% RH environment and accuracy over a 0 to 50°C (32 to 122°F) with a 0 to 85% RH (non-condensing environment). Accuracy over the 0 to 50°C (32 to 122°F) range includes the temperature coefficient effect of the meter.



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To Order (Specify Model Number)		
Model No.	Price	Description (Display Meter Only, No Outputs)
DP63800-E	\$243	DC Process inputs, red display, 85 to 250 Vac, 50/60 Hz
DP63800-E-LV	270	DC Process inputs, red display, 11 to 36 Vdc, 24 Vac
DP63800-E-GN	259	DC Process inputs, green display, 85 to 250 Vac, 50/60 Hz
DP63800-E-GN-LV	287	DC Process inputs, green display, 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	37	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

\* Free software available at [omega.com/dp63800-E](http://omega.com/dp63800-E)  
Comes complete with operator's manual.

**Note:** 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, analog output and communications. The cards can be installed initially or at a later date. Each optional plug-in card is shipped with installation and programming instructions.

**Ordering Examples:** DP63800-E-GN, DC process inputs, green display, 85 to 250 Vac, 50/60 Hz, and LDP6-CDL10 analog output card, \$259 + 74 = \$333.

DP63800-E-LV, DC process inputs, red display, 11 to 36 Vdc, 24 Vac, \$270.

## Accessory

Model No.	Price	Description
DPP-5	\$525	1/8 DIN panel punch

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