

1/8 DIN Digital Panel Meters For Process Inputs

DP63800-E



- ✓ 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)

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



DP63800-E

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

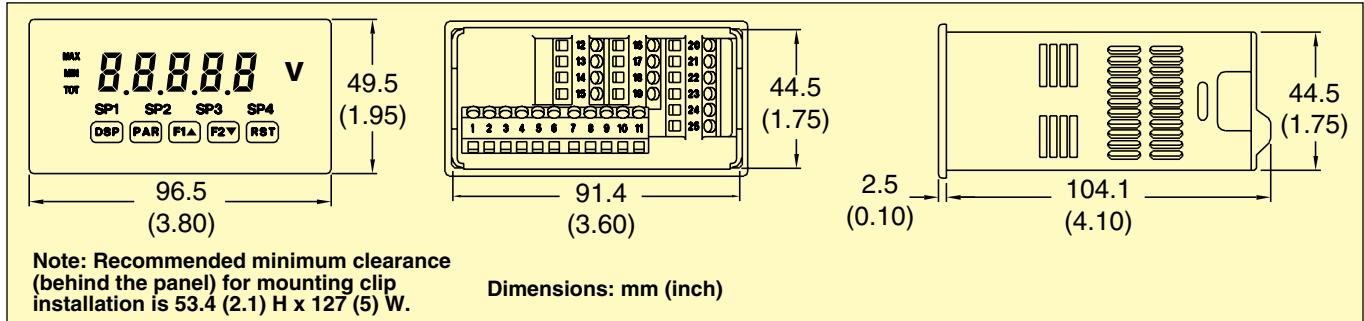
Transmitter Power: 24 Vdc, ±5%, regulated, 50 mA max

Output Modules: For complete specifications, see LDP63100 Series online

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.



To Order

Model No.	Description (Display Meter Only, No Outputs)
DP63800-E	DC Process inputs, red display, 85 to 250 Vac, 50/60 Hz
DP63800-E-LV	DC Process inputs, red display, 11 to 36 Vdc, 24 Vac
DP63800-E-GN	DC Process inputs, green display, 85 to 250 Vac, 50/60 Hz
DP63800-E-GN-LV	DC Process inputs, green display, 11 to 36 Vdc, 24 Vac

Optional Plug-in Output Cards (Field Installable)

Model No.	Description
Setpoint Alarms (Only 1 Alarm Card Can Be Installed Into Base Meter)	
LDP6-CDS10	Dual setpoint relay output card
LDP6-CDS20	Quad setpoint relay output card
LDP6-CDS30	Quad setpoint sinking open collector output card
LDP6-CDS40	Quad setpoint sourcing open collector output card
Analog Output	
LDP6-CDL10	Analog output card
Communications (Only 1 Communications Card Can Be Installed Into Base Meter)*	
LDP6-CDC10	RS485 serial communications output card with terminal block
LDP6-CDC1C	Extended RS485 serial communications output card with dual RJ11 connector
LDP6-CDC20	RS232 serial communications output card with terminal block
LDP6-CDC2C	Extended RS232 serial communications output card with 9-pin D connector
LDP6-CDC40	MODBUS communications card
LDP6-CDC4C	Extended MODBUS communications card with dual RJ11 connector

* Free software available online.

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

Accessory

Model No.	Description
DPP-5	1/8 DIN panel punch