

1/8 DIN High-Accuracy True RMS Scalable Indicator

For AC Sinusoidal and Non-Sinusoidal Signals



DP25-RMS
Starts at
\$360



Panel Punches Available, Visit omega.com/panelpunches

- ✓ AC Voltage and Current Inputs
- ✓ High 0.1% of Reading Accuracy
- ✓ 4-Digit, 14-Segment LED Display—Red or Green
- ✓ Exceptional Noise Rejection
- ✓ Peak and Valley RMS Levels
- ✓ Front-Panel Configuration
- ✓ Optional Dual 5 A Relays, Analog Output, and RS232/RS485
- ✓ NEMA 4 Front Bezel

The DP25-RMS Series digital panel meter features high accuracy, 4 digits, and AC and true-RMS scalable inputs. The 4-digit, 14-segment alphanumeric display ensures easy reading and reconfiguration. This meter uses an integrated circuit that computes the true root-mean-square value of complex input signals. AC voltage measurements with a frequency of 25 Hz to 5 kHz can be measured.

The DP25-RMS can capture and display both peak and valley rms levels of input signals. A dual 5 A relay is available and can be configured to provide on/off control. An isolated analog output, which can be configured for 4 to 20 mA or 0 to 10 Vdc, is also available, as is RS232 and RS485 communication. True rms AC input makes this meter ideal for power monitoring, piezoelectric sensors, signal conditioning, and many other applications.

Specifications

Accuracy

Max Error, AC Coupling: $\pm(0.1\% \text{ rdg} \pm 10 \text{ counts})$ at 50 or 60 Hz; $\pm(0.1\% \text{ rdg} \pm 40 \text{ counts})$ from 40 Hz to 3 kHz

Max Error, DC Coupling: $\pm(0.1\% \text{ rdg} \pm 10 \text{ counts})$ at 50 or 60 Hz; $\pm(0.1\% \text{ rdg} \pm 30 \text{ counts})$ from 40 Hz to 3 kHz

Input Range:

DP25-VRMS: 0 to 0.1V, 0 to 1V, 0 to 10V, 0 to 100V, 0 to 750V
DP25-CRMS: 0 to 1 mA, 0 to 10 mA, 0 to 100 mA, 0 to 1 A, 0 to 5 A

Display Type: 14-segment, red LED
Display Digits: 4 digits (-1999 to 9999)
Digit Height: 14.2 mm (0.56")
Conversion Rate: 2.5/s
Operating Temperature: 0 to 60°C (32 to 140°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Span Temperature Coefficient: $\pm 200 \text{ ppm}/^\circ\text{C}$ typical
Warm-Up Time: 30 min

DP25-VRMS, \$360, with ACC104A accelerometer, \$425, shown smaller than actual size. Visit omega.com/acc104a for details.

Humidity: Up to 90% non-condensing @ $<40^\circ\text{C}$
Noise Rejection: CMR, 100 dB; CMV, 1500 Vp
Input Connection: Screw terminals
Power Requirement: 115 or 230 Vac $\pm 10\%$ between 49 and 100 Hz
Power Consumption: 10 W max
Bezel: 96 W x 48 H x 20 mm D (3.78 x 1.89 x 0.80")
Panel Cutout: 45 H x 92 mm W (1.77 x 3.62")
Weight: 0.56 kg (1.25 lb)

AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)

Model No.	Price	Input Range
DP25-VRMS	\$360	0 to 100 mV, 0 to 1V, 0 to 10V, 0 to 100V, 0 to 750V
DP25-CRMS	360	0 to 1 mA, 0 to 10 mA, 0 to 100 mA, 0 to 1 A, 0 to 5 A

Note: Individual ranges are DIP-switch settable. The meter comes factory set at the highest range.

Options

Suffix Code	Price	Description
Control/Analog Output		
-GN	N/C	Green LED display
-230	N/C	230 Vac power
-R	\$70	Dual 6 A relays
-A	80	Scalable analog output
Computer Communications		
-S2	\$110	Isolated RS232 serial output
-S4	110	Isolated RS485 serial output

The -S2 and -S4 options include 1.8 m (6') communications cable with phone plug termination. For proper termination to a computer, 9-pin and 25-pin connectors are offered below.

Accessories

Model No.	Price	Input Range
DP40-9SC2	\$30	9-pin serial connector for RS232
DP40-9SC4	30	9-pin serial connector for RS485
DP40-25SC2	30	25-pin serial connector for RS232
DP40-25SC4	30	25-pin serial connector for RS485

Comes complete with operator's manual.

Ordering Example: DP25-VRMS-S2A, DP25 unit for true rms voltage input, isolated analog output, RS232 communications, 115 Vac, and DP40-9SC2, 9-pin serial connector, \$360 + 110 + 80 + 30 = \$580.

Recommended Reference Book: Analog Signal Processing, EE-2560, \$180. Visit omega.com/bobi for Additional Books.





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• Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

• pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

• Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

• Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

• Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters