

1/8 DIN High-Accuracy True RMS Scalable Indicator

For AC Sinusoidal and Non-Sinusoidal Signals



DP25-RMS



- ✓ 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 minutes

DP25-VRMS with ACC104A accelerometer shown smaller than actual size.

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)

To Order

Model No.	Input Range
DP25-VRMS	0 to 100 mV, 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

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

Options

Suffix Code	Description
Control/Analog Output	
-GN	Green LED display
-230	230 Vac power
-R	Dual 5 A relays
-A	Scalable analog output
Computer Communications	
-S2	Isolated RS232 serial output
-S4	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.	Input Range
DP40-9SC2	9-pin serial connector for RS232
DP40-9SC4	9-pin serial connector for RS485
DP40-25SC2	25-pin serial connector for RS232
DP40-25SC4	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.