

DMS-20PC-1-LM

Self-Powered 3 Digit, LED Display AC Line Voltage Monitors



FEATURES

- Plugs directly into USA-style wall outlets
- Screw terminals for panel mounting
- Small 1.38" x 0.88" x 1.0" packages
- Large, easy-to-read, red, blue or green LED displays
- Fully encapsulated for harsh environments
- Half-wave averaging, rms calibrated
- UL, CSA and IEC1010-1 certified
- Very low cost!

Functional Specifications

Input

Voltage Range ① 85-264Vrms Overvoltage Protection 300Vrms

(O II

(Overvoltage category II)
Frequency Range ① 47-63Hz
Current Consumption 50mArms (max.)

Performance

Sampling Rate 2.5 readings/second

Measurement Type Half-wave average, rms
calibrated for sinusoidal input

 $\pm 1V$ (typ.), $\pm 2V$ (max.)

Accuracy @ +25°C Temperature Drift

 $(-25 \text{ to } +60^{\circ}\text{C})$ $\pm 0.15 \text{ Volts/}^{\circ}\text{C (max.)}$

Mechanical

Dimensions 1.38" x 0.88" x 1.00"
DisplayType 3 digit, red LED, 0.37"/9.4mm
Weight 1 ounce (28 grams)

Case Material Polycarbonate

Environmental

 $\begin{array}{ll} \text{Operating Temperature} & -25 \text{ to } +60^{\circ}\text{C} \\ \text{Storage Temperature} & -40 \text{ to } +75^{\circ}\text{C} \\ \text{Humidity (Non-condensing)} & 0 \text{ to } 95\% \\ \end{array}$

① Operation and accuracy at inputs above or below these ranges are not specified.





Murata Power Solution's DMS-20PC-1-LM is a component-size, self-contained, low-cost ac voltmeter for true line measurements. It requires no additional components or auxiliary power. Simply plug it into any wall outlet and instantly read voltages from 85 to 264Vac (47-63Hz). The large (0.37"/9.4mm), bright red, blue or green LED display makes the DMS-20PC-1-LM easily readable under any lighting conditions.

DMS-20PC-1-LM employs half-wave sinusoidal averaging (rms calibrated) and has a display resolution of 1Vac over its full input range. Packaged in a red-filter case with built-in bezel, the meter is fully encapsulated for ruggedness. All units are overvoltage protected to 300Vac.

This low-cost meter is ideal for industrial, laboratory, office and field-service applications. Its miniature size is perfect for design into high-end consumer electronics, laboratory instrumentation and other products requiring accurate ac line monitoring.



Suggested wiring (user supplied)

Ordering Information

DMS-20PC-1-LM-C Red LED (threaded & screws) DMS-20PC-1-LM-B-C Blue LED (threaded & screws) DMS-20PC-1-LM-G-C Green LED (threaded & screws) DMS-20PC-1-LM-F-C Red LED (blade terminals (installed) DMS-20PC-1-LM-BF-C Blue LED (blade terminals (installed) DMS-20PC-1-LM-GF-C Green LED)blade terminals (installed) DMS-20-CP Panel cutout punch DMS-BZL3-C Panel mount bezel DMS-BZL4-C Panel mount bezel with sealing gasket

Brass screws (6-32 thread) and a panel-mount retaining clip are supplied with each meter



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1.30

(33.0)

DW2-50bC-3-FW

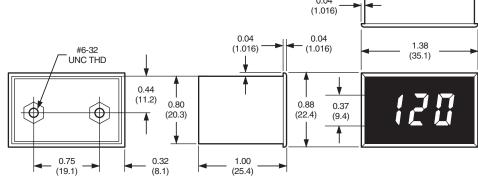
Dimensions in inches (millimeters) Tolerances: 2 PL Dec ± 0.02 (± 0.51)

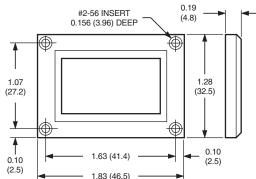
3 PL Dec ±0.010 (±0.254)

Recommended panel cutout dimensions: $1.336 (33.93)W \times 0.838 (21.29)H$

Internal corner radii 0.032 (0.81) Max.

0.04









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