

DMS-20PC-7-DCM

-36 to-75Vdc, Self-Powered LED Display, DC Voltage Monitor



FEATURES

- Great for -48Vdc telecom power monitoring
- Self-powered 2-wire operation
- -36 to -75V operating input range
- Ultra-low power consumption, 8mA (typ.) at -48V
- –200V input transient protection
- Reverse polarity protected to +100V
- 0.37"/9.4mm high, bright red, LED display
- Subminiature 1.38" x 0.88" x 1.0" package
- Super reliable, epoxy-encapsulated construction
- -25 to +60°C operating temperature range

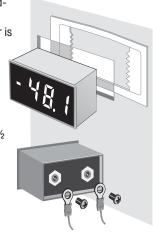
for monitoring -48V intermediate bus voltages in modern telecom/datacom/computer equipment. Its compact size and low power consumption

DATEL's new DMS-20PC-7-DCM self-powered digital voltage monitor is designed

(8mA typical) make it the ideal replacement for older, hard-to-read, analog panel meters. Simply connect a –36 to –75Vdc input across the two rear terminals and the meter is fully operational!

The DMS-20PC-7-DCM's subminiature package (1.38" x 0.88" x 1.0") houses a large, 0.37"/9.4mm, bright red LED display which can be easily read from 15 feet away. Built-in reverse polarity and transient protection assures simple, trouble-free installation.

The DMS-20PC-7-DCM employs a high-resolution, $3\frac{1}{2}$ digit analog-to-digital converter and precision metal-film resistors to achieve outstanding performance over its entire operating temperature range of -25 to $+60^{\circ}$ C. A rugged, epoxy-encapsulated, polycarbonate case (available only from DATEL!) provides excellent protection against moisture, shock and vibration.



Typical panel mount installation Suggested wiring (user supplied)

Functional Specifications

Input

Voltage Range ① −36.0 to −75.0Vdc

Current Consumption 13.0mA (max.)

Reverse Polarity Protection +100V (max.)

Transient Protection −200V (1µsec duration)

Performance

Sampling Rate 2.5 readings/second

Resolution 0.1

Accuracy @ +25°C ± 0.1 V (typ.), ± 0.2 V (max.)

Temperature Drift

 $(-25 \text{ to } +60^{\circ}\text{C})$ $\pm 0.2 \text{ counts/}^{\circ}\text{C (max.)}$

Mechanical

Dimensions 1.38" x 0.88" x 1.00"
Display Type 3 digit, red LED, 0.37"/9.4mm
Weight 1 ounce (28 grams)
Case Material Polycarbonate
6-32 screw torque 6-8 in-lb (0.7 - 0.9N-m)

Environmental

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

 Operation and accuracy at inputs above or below this range are not specified.





Ordering Information

DMS-20PC-7-DCM -36.0 to -75.0V dc voltage monitor

DMS-20-CP Panel cutout punch

DMS-BZL3 Panel mount bezel assembly

DMS-BZL4 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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Dimensions in inches (millimeters) 2 PL Dec ±0.02 (±0.51) 3 PL Dec ±0.010 (±0.254) (33.0)Recommended panel cutout dimensions: 1.336 (33.93)W × 0.838 (21.29)H Internal corner radii 0.032 (0.81) Max. 0.04 (1.016)0.04 0.04 1.38 #6-32 (1.016)(1.016)(35.1)UNC THD 0.44 (11.2)0.80 0.88 0.37 (20.3)(22.4)(9.4)Ŧ 0.75 0.32 1.00 (19.1)(8.1)(25.4)0.19 #2-56 INSERT 0.156 (3.96) DEEP 1.07 1.28 DMS-BZL3 (27.2)(32.5)Optional Bezel \bigcirc 0.10 0.10 1.63 (41.4) (2.5)(2.5)1.83 (46.5)

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