

proSense® Digital Panel Meters - DPM1-E Series 1/32 DIN

These models in the ProSense DPM1-E series offers a simple, low cost digital display of AC or DC voltage or amperage electrical parameters. The 4-digit red LED display is easily scaled into any engineering units from -1999 to 9999 with a selectable decimal point location. Two point direct or reverse acting linear scaling values can be entered manually or by introducing actual sensed process values in Teach mode. The meter is powered from

an external AC or DC power supply. The 1/32 DIN housing takes up minimal panel space and the meter face has an IP65 rating. Configuration parameters can be locked out to prevent unauthorized or accidental changes to the meter's operation. ProSense digital panel meters are backed by a 3 year warranty.

Features:



- 48 x 24mm 1/32 DIN
- Simple menu driven pushbutton configuration
- 10mm 4-digit (-1999 to 9999 DC/0 to 9999 AC) red LED display
- Selectable decimal point
- AC/DC Voltage Input (100/600V)
- AC/DC Amperage input 1A/5A
- AC or DC powered
- Display scaling or teaching modes
- Configuration for direct or reverse acting
- Total configuration lock out
- 3 year warranty



DPM1-E Series Panel Meters

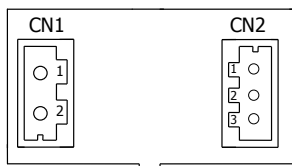
| Model | Description | Weight (lbs) | Price |
|-----------------|---|--------------|----------|
| DPM1-E-H | ProSense digital panel meter, 1/32 DIN, 10mm 4-digit red LED, AC/DC current or voltage input, 85 to 265 VAC/100 to 300 VDC operating voltage. | 0.25 | \$116.00 |
| DPM1-E-L | ProSense digital panel meter, 1/32 DIN, 10mm 4-digit red LED, AC/DC current or voltage input, 21 to 53 VAC/10.5 to 70 VDC operating voltage. | 0.24 | \$116.00 |

Technical Specifications

| Input | Voltage | | Current | |
|---------------------------------|------------------------------------|---|---------|--------------|
| AC Range | 0 to 600V | 0 to 100V | 0 to 1A | 0 to 5A |
| AC Frequency Range | 45Hz to 1kHz sine wave | | | |
| DC Range | -199.9 to 600V | ± 100V | ± 1A | -1.999 to 5A |
| Resolution | 0.1V | 0.1V | 1mA | 1mA |
| Input Impedance | Volts | 3MΩ | | |
| | Amps | 14mΩ | | |
| Accuracy (@ 23°C ±5°C) | DC, 600V AC, 5AAC | ±(0.2% of reading +3 digits) | | |
| | 100V AC, 1AAC | ±(0.4% of reading +4 digits) | | |
| | Temperature coefficient | 100 ppm/°C | | |
| | Warm-Up time | 5 minutes | | |
| Power Supply and Fuses | DPM1-E-H | 85-265VAC 50/60Hz or 100-300VDC (Recommended fusing, 0.1A/250V, DIN 41661) | | |
| | DPM1-E-L | 21-53VAC 50/60Hz or 10.5-70VDC (Recommended fusing, 0.5A/250V, DIN 41661) | | |
| Power Consumption | 1.8W | | | |
| Conversion | Technique | Sigma-Delta | | |
| | Resolution | ±15 bits | | |
| | Conversion rate | 20 times per second | | |
| Display | Range | -1999 to 9999 DC, 0 to 9999 AC, selectable decimal point position | | |
| | Type | 4 digit 10mm (0.4"), red | | |
| | Display refresh rate | 4 times per second | | |
| | Display/input overrange indication | OL/E | | |
| Environmental Conditions | Operating temperature | -10°C to +60°C (14°F to 140°F) | | |
| | Storage temperature | -25°C to +85°C (-13°F to 185°F) | | |
| | Relative humidity (non-condensing) | <95% @ 40°C (104°F) | | |
| | Maximum altitude | 2000m | | |
| | Frontal protection degree | IP65 | | |
| Environmental Air | No corrosive gases permitted | | | |
| Agency Approvals | CE | | | |

pro^{ense} Digital Panel Meters - DPM1-E Series 1/32 DIN

Wiring

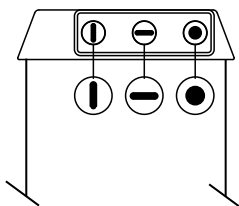


| CN1 | |
|-----------|-----------|
| AC Supply | DC Supply |
| 1 Neutral | 1 -VDC |
| 2 Line | 2 +VDC |

| CN2 | |
|-----|---------------------|
| 1 | IN (common) |
| 2 | 100V / 600V (AC/DC) |
| 3 | 1A / 5A (AC/DC) |

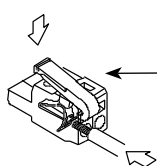
| Terminals | | |
|-----------------------|--|--|
| Connector | CN1 | CN2 |
| Wire cross section | 0.08 to 2.5mm ² (28 to 12 AWG) | 0.08 to 2.5mm ² (28 to 12 AWG) |
| Strip length | 8 to 9mm | 8 to 9mm |
| Manufacturer | Wago 231-202/026-000 | Wago 231-303/026-000 |
| Cage clamp connection | Insertion tool or screwdriver with 0.5 mm x 3.0 mm blade | Insertion tool or screwdriver with 0.5 mm x 3.0 mm blade |

Programming Keys (Bottom View)



- **ENTER:** Enters configuration and validates data and parameters.
- ◡ **SHIFT:** Selects mode or shifts blinking digit in configuration.
- ⏏ **UP:** Increases value of blinking digit in configuration.

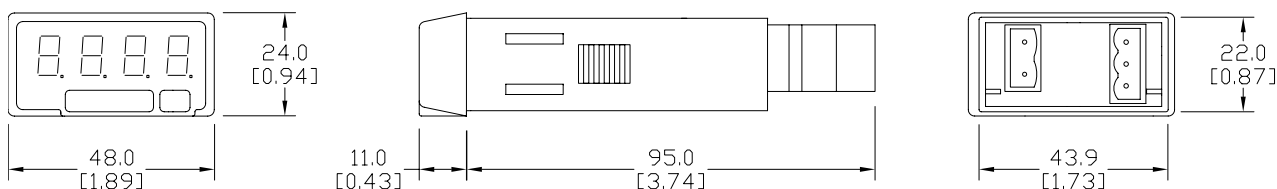
CN1 and CN2 Terminals



*Insertion Tool (included with meter)
Insert wires into the proper terminal while using the insertion tool to open the clip inside the connector. Release the insertion tool to fix wire to the terminal.*

Dimensions

mm [inches]



| Installation | |
|----------------------|--------------------------------------|
| Dimensions | 48 x 24 x 95mm (1/32 DIN) |
| Panel Cutout | 45 x 22mm (Max. panel thickness 7mm) |
| Case Material | Polycarbonate UL 94 V-0 |

See our website www.AutomationDirect.com for complete Engineering drawings.

Insert



Scan or click the above QR code to be taken to the DPM1-E Series Quick Start Guide

proSense® Digital Panel Meters DPM Series

Description

The ProSense DPM family of digital panel meters includes both 1/32 DIN and 1/8 DIN meter sizes with simple menu-driven pushbutton configuration. A wide variety of input signals can be accepted for process, temperature, load cell, voltage, current, pulse, frequency, and other applications. Available output options include alarm relays, analog signal retransmission, and sensor excitation voltage. Backed by a 3-year warranty, ProSense digital panel meters offer outstanding features and performance at an incredible price point.



Type DPM1-A-LP



Type DPM1-A-T



Type DPM1-A-2R



Type DPM2



Type DPM2L



Type DPM3



Click on the thumbnail or go to <https://www.automationdirect.com/VID-PS-0007> for a short video on Digital Panel Meters

DPM Series Digital Panel Meters Process Input Selection Guide

| Model | Size | Display | Inputs | Outputs | Power | Price | | | |
|-----------------------|-------------------------|--|--|--|--|---|--|-------------------------------------|----------|
| DPM1-A-LP | 1/32 DIN | 10mm, Red LED*, -1999 to 9999 Selectable decimal point | 4-20mA | None | Loop Powered | \$101.00 | | | |
| DPM1-A-H | | | $\pm 20\text{mA}$, $\pm 100\text{mV}$ $\pm 10\text{V}$, $\pm 20\text{V}$ $\pm 200\text{V}$ | | 85-265 VAC, 50/60 Hz 100-300 VDC | \$116.00 | | | |
| DPM1-A-L | | | | | 21-53 VAC, 50/60 Hz 10.5-70 VDC | \$116.00 | | | |
| DPM1-T-H | | | 10mm, Red LED, -1999 to 9999 | | RTD Pt100 (3-wire) TC Type J, K, T or N | 85-265 VAC, 50/60 Hz 100-300 VDC | \$116.00 | | |
| DPM1-T-L | | | | | | 21-53 VAC, 50/60 Hz 10.5-70 VDC | \$116.00 | | |
| DPM1-A-2R-H | | | 8mm, Red LED, -1999 to 9999 Selectable decimal point | | | $\pm 20\text{mA}$, $\pm 100\text{mV}$ $\pm 10\text{V}$, $\pm 60\text{V}$ | 2 Relays Form A SPST Normally Open | 85-265 VAC, 50/60 Hz 100-300 VDC | \$128.00 |
| DPM1-A-2R-L | | | | | | | | 21-53VAC 50/60 Hz 10.5-70VDC | \$128.00 |
| DPM1-A-A2R-H | | | | | | | 2 Relays Form A SPST Normally Open | 85-265 VAC, 50/60 Hz 100-300 VDC | \$141.00 |
| DPM1-A-A2R-L | | | | | | | 21-53 VAC, 50/60 Hz 13.5-70 VDC | \$141.00 | |
| DPM2-AT-HL | | | DPM2: 14mm, Red LED, -9999 to 9999 DPM2L: 20mm, Red LED, -1999 to 9999 Selectable decimal point | | | $\pm 20\text{mA}$, $\pm 10\text{V}$ $\pm 200\text{V}$, 100-100k Ohm potentiometer, 1k-50k Ohm resistance, RTD Pt100 (3-wire) RTD Pt1000 (4-wire) TC Type J, K, T or N | None | 20-265 VAC, 50/60 Hz 11-265 VDC | \$135.00 |
| DPM2L-AT-HL | | \$145.00 | | | | | | | |
| DPM2-AT-2R-HL | 2 Relays Form C SPDT | \$148.00 | | | | | | | |
| DPM2L-AT-2R-HL | | \$159.00 | | | | | | | |
| DPM3-AT-H | 1/8 DIN | 14mm, Red, Green, Amber LED -19999 to 39999 Selectable decimal point | $\pm 20\text{mA}$, $\pm 10\text{V}$ RTD Pt100 (3-wire) TC Type J, K, T or N Load Cell $\pm 15\text{mV}$, $\pm 30\text{mV}$, $\pm 150\text{mV}$ Potentiometer | None | 85-265 VAC, 50/60Hz 100-300 VDC | \$168.00 | | | |
| DPM3-AT-2R-H | | | | 2 Relays Form C SPDT | | \$189.00 | | | |
| DPM3-AT-4R-H | | | | 4 Relays Form A Normally Open with shared common | | \$204.00 | | | |
| DPM3-AT-A-H | | | | 4-20mA | | \$189.00 | | | |
| DPM3-AT-A2R-H | | | | 2 Relays Form C SPDT 4-20mA | | \$211.00 | | | |
| DPM3-AT-L | | | | None | | \$168.00 | | | |
| DPM3-AT-2R-L | | | | 2 Relays Form C SPDT | | \$189.00 | | | |
| DPM3-AT-4R-L | | | | 4 Relays Form A Normally Open with shared common | | 22-53 VAC, 50/60 Hz 10.5-70 VDC | \$204.00 | | |
| DPM3-AT-A-L | | | | 4-20mA | | \$189.00 | | | |
| DPM3-AT-A2R-L | | | | 2 Relays Form C SPDT 4-20mA | | \$211.00 | | | |

* Illumination based on available loop current and will not be as bright as the powered Digital Panel Meters

pro^{ense} Digital Panel Meters DPM Series

| DPM Series Digital Panel Meters Electrical Input Selection Guide | | | | | | |
|--|----------|--|---|-----------------------------------|-------------------------------------|----------|
| Model | Size | Display | Inputs | Outputs | Power | Price |
| <u>DPM1-E-H</u> | 1/32 DIN | 10mm, Red LED, -1999 to 9999 Selectable decimal point | 100 / 600 VAC or VDC 1A / 5A AC or DC | None | 85-265 VAC, 50/60 Hz 100-300 VDC | \$116.00 |
| <u>DPM1-E-L</u> | | | | | 21-53 VAC, 50/60Hz 10.5-70 VDC | \$116.00 |
| <u>DPM2-E-HL</u> | 1/8 DIN | 14mm, Red LED, -9999 to 9999 | 600 / 200 / 20 VAC or VDC 1A / 5A / shunt 60mV / shunt 100mV AC or DC | None | 20-265 VAC, 50/60 Hz 11-265 VDC | \$135.00 |
| <u>DPM2-E-2R-HL</u> | | | | 2 Relays Form C SPDT | | \$148.00 |
| <u>DPM3-E-H</u> | | 14mm, Red, Green, Amber LED -19999 to 19999 Selectable decimal point | 600 / 200 / 20 / 2 VAC True RMS or VDC 1A / 5A / shunt 50mV / shunt 60mV / shunt 100mV AC True RMS or DC | None | 85-265 VAC 100-300 VDC | \$196.00 |
| <u>DPM3-E-A2R-H</u> | | | | 2 Relays Form C SPDT 4-20mA | | \$232.00 |
| <u>DPM3-E-L</u> | | | | None | 22-53 VAC 10.5-70 VDC | \$196.00 |
| <u>DPM3-E-A2R-L</u> | | | | 2 Relays Form C SPDT 4-20mA | | \$232.00 |

| DPM Series Digital Panel Meters Pulse, Frequency Input Selection Guide | | | | | | |
|--|----------|--|---|--|---------------------------|----------|
| Model | Size | Display | Inputs | Outputs | Power | Price |
| <u>DPM1-P-H</u> | 1/32 DIN | 10mm, Red LED, 0 to 9999 Selectable decimal point | 7kHz (tachometer rpm or rate modes) 9999Hz (frequency meter mode) | None | 85-265 VAC 100-300 VDC | \$116.00 |
| <u>DPM1-P-L</u> | | | | | 1-53 VAC 10.5-70 VDC | \$116.00 |
| <u>DPM1-P-A2R-H</u> | | 8mm, Red LED, 0 to 9999 Selectable decimal point | 12kHz (tachometer rpm or rate modes) 9999Hz (frequency mode) 100Hz (duty/PWM mode) | 2 Relays Form A SPST Normally Open 4-20mA | 85-265 VAC 100-300 VDC | \$141.00 |
| <u>DPM1-P-A2R-L</u> | | | | | 21-53 VAC 13.5-70 VDC | \$141.00 |
| <u>DPM2-P-HL</u> | 1/8 DIN | 14mm, Red LED, 0 to 9999, 0 to 999999 Totalizer Selectable decimal point | 7.5 kHz (counter mode) 25kHz (tachometer rpm or rate modes) | None | 20-265 VAC 11-265 VDC | \$135.00 |
| <u>DPM2-P-2R-HL</u> | | | | 2 Relays Form C SPDT 4-20mA | | \$148.00 |
| <u>DPM3-P-H</u> | 1/8 DIN | 14mm Red, Green, Amber LED -99999 to 99999, -9999999 to 99999999 Totalizer Programmable decimal point | 19kHz (without totalizer) 9.9 kHz (with totalizer) | None | 85-265 VAC 100-300 VDC | \$168.00 |
| <u>DPM3-P-A2R-H</u> | | | | 2 Relays Form C SPDT 4-20mA | | \$211.00 |
| <u>DPM3-P-L</u> | | | | None | 22-53 VAC 10.5-70 VDC | \$168.00 |
| <u>DPM3-P-A2R-L</u> | | | | 2 Relays Form C SPDT 4-20mA | | \$211.00 |