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

These models in the ProSense DPM1 series offers a simple, low cost digital display of temperature in either Fahrenheit or Celsius from RTD or Thermocouple temperature sensors. The 4-digit red LED display is pre-configured for fixed temperature ranges based on the type of temperature sensor input. Thermocouples are displayed with 1 degree of resolution while RTDs can be displayed with either 0.1 or 1 degree of resolution. 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 red LED display
- Temperature, °F or °C

- RTD input : Pt100, Resolution: 1°, 0.1°
- TC input : J, K, T, N, Resolution: 1°
- AC or DC powered
- Total configuration lock out
- 3 year warranty

CE

3 YEAR WARRANTY

DPM1 Series Panel Meters			
Model	Description	Weight (lbs)	Price
DPM1-T-H	ProSense digital panel meter, 1/32 DIN, 4-digit red LED, input thermocouple type(s): J, K, T, N, input RTD type(s): Pt100, 85 to 265 VAC / 100 to 300 VDC operating voltage.	0.2	
DPM1-T-L	ProSense digital panel meter, 1/32 DIN, 4-digit red LED, input thermocouple type(s): J, K, T, N, input RTD type(s): Pt100, 21 to 53 VAC / 10.5 to 70 VDC operating voltage.	0.2	

Technical Specifications			
	Type	Resolution 1°	Resolution 0.1°
Input / Resolution / Fixed Display Range	RTD: Pt100 (3-wire)	-200 to 800°C	-199.9 to 800.0°C
		-328 to 1472°F	-199.9 to 999.9°F
	TC "J"	-200 to 1100°C	N/A
		-328 to 2012°F	
	TC "K"	-200 to 1250°C	
		-328 to 2282°F	
	TC "T"	-200 to 400°C	
		-328 to 752°F	
	TC "N"	-200 to 1250°C	
		-328 to 2282°F	
TC Cold Junction Compensation Range		-10°C to 60°C (14°F to 140°F)	
Pt100 Measuring Current		1mA	
Pt100 Linearization (α=0.00385)		IEC 60751	
Pt100 Max. Lead Resistance		40Ω / wire (balanced)	
Accuracy	Pt100 1°	±(0.2%rdg + 1°C) / ±(0.2%rdg + 2°F); t<-50°C/-58°F ±(1%rdg+1°C) / ±(1%rdg+2°F)	
	Pt100 0.1°	±(0.2%rdg + 0.4°C) / ±(0.2%rdg + 0.7°F); t<-50.0°C/-58.0°F ±(1%rdg+0.4°C) / ±(1%rdg+0.7°F)	
	TC J, K, T, N	±(0.4%rdg + 2°C) / ±(0.4%rdg + 4°F); t<-50°C/-58°F ±(1%rdg+2°C) / ±(1%rdg+4°F)	
Accuracy Conditions	Temperature coefficient	100 ppm/°C	
	Warm up time	10 minutes	
	Temperature	23°C±5°C	
Power Supply and Fuses	DPM1-T-H	85-265VAC 50/60Hz or 100-300VDC (Recommended fusing, 0.1A/250V, 5mm x 20mm glass miniature or DIN 41661 equivalent)	
	DPM1-T-L	21-53VAC 50/60Hz or 10.5-70VDC (Recommended fusing, 0.5A/250V, 5mm x 20mm glass miniature or DIN 41661 equivalent)	
Power Consumption		1.8W	
Conversion	Technique	Sigma-Delta	
	Resolution	±15 bits	
	Conversion rate	25 times per second	
Display	Range	-1999 to 9999	
	Type	4-digit 10mm (0.4"), red	
	Display refresh rate	4 times per second	
	Display/input overrange indication	OuE	
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	

prosense® Digital Panel Meters - DPM1 Series 1/32 DIN

Wiring
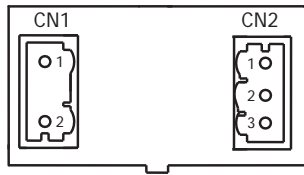
CN1		
AC Supply	**DC Supply**	
1	Neutral	1	-VDC
2	Line	2	+VDC

CN2	
1	-TC / Common Pt100
2	+TC / Common Pt100
3	Pt100

| Terminals		
Connector	**CN1**	**CN2**
Wire cross section	0.08 to 2.5mm² (28 to 12 AWG)	0.08 to 2.5mm² (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

CN1 and CN2 Terminals
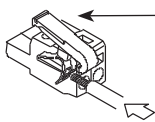
Insertion Tool (included with meter)

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.
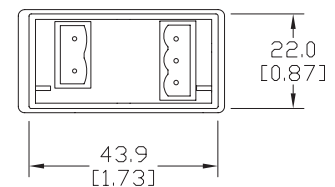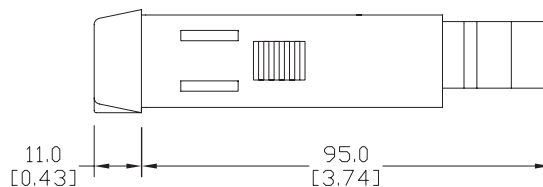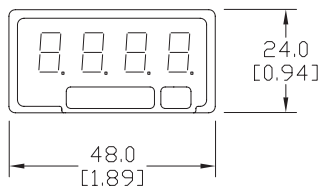
**Programming Keys
(Bottom View)**
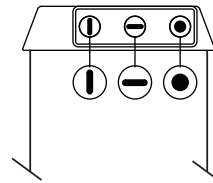
ENTER: Enters configuration and validates data and parameters.

SHIFT: Selects mode or shifts blinking digit in configuration.

UP: Increases value of blinking digit in configuration.

Dimensions

mm [inches]

24.0 [0.94]	
48.0 [1.89]	
11.0 [0.43]	95.0 [3.74]
43.9 [1.73]	22.0 [0.87]

See our website for complete Engineering drawings.

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

Insert

Scan or click the above QR code to be taken to the DPM1-T-H and DPM1-T-L Series Quick Start Guide

prosense® Digital Panel Meters DPM Series

Type DPM1-A-LP   Type DPM1-A-T   Type DPM1-A-2R

Type DPM2   Type DPM2L   Type DPM3

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.

Click on the thumbnail or go to
https:///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	
DPM1-A-H			±20mA, ±100mV ±10V, ±20V ±200V		85-265 VAC, 50/60 Hz 100-300 VDC	
DPM1-A-L					21-53 VAC, 50/60 Hz 10.5-70 VDC	
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	
DPM1-T-L					21-53 VAC, 50/60 Hz 10.5-70 VDC	
DPM1-A-2R-H		8mm, Red LED, -1999 to 9999 Selectable decimal point	±20mA, ±100mV ±10V, ±60V	2 Relays Form A SPST Normally Open	85-265 VAC, 50/60 Hz 100-300 VDC	
DPM1-A-2R-L					21-53VAC 50/60 Hz 10.5-70VDC	
DPM1-A-A2R-H				2 Relays Form A SPST Normally Open 4-20mA	85-265 VAC, 50/60 Hz 100-300 VDC	
DPM1-A-A2R-L					21-53 VAC, 50/60 Hz 10.5-70 VDC	
DPM2-AT-HL	1/8 DIN	DPM2: 14mm, Red LED, -9999 to 9999 DPM2L: 20mm, Red LED, -1999 to 9999 Selectable decimal point	±20mA, ±10V ±200V, 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	
DPM2L-AT-HL						
DPM2-AT-2R-HL				2 Relays Form C SPDT		
DPM2L-AT-2R-HL						
DPM3-AT-H		14mm, Red, Green, Amber LED -19999 to 39999 Selectable decimal point	±20mA, ±10V RTD Pt100 (3-wire) TC Type J, K, T or N Load Cell ±15mV, ±30mV, ±150mV Potentiometer	None	85-265 VAC, 50/60Hz 100-300 VDC	
DPM3-AT-2R-H				2 Relays Form C SPDT		
DPM3-AT-4R-H				4 Relays Form A Normally Open with shared common		
DPM3-AT-A-H				4-20mA		
DPM3-AT-A2R-H				2 Relays Form C SPDT 4-20mA		
DPM3-AT-L				None	22-53 VAC, 50/60 Hz 10.5-70 VDC	
DPM3-AT-2R-L				2 Relays Form C SPDT		
DPM3-AT-4R-L				4 Relays Form A Normally Open with shared common		
DPM3-AT-A-L				4-20mA		
DPM3-AT-A2R-L				2 Relays Form C SPDT 4-20mA		

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

proense® Digital Panel Meters DPM Series

DPM Series Digital Panel Meters Electrical Input Selection Guide						
Model	**Size**	**Display**	**Inputs**	**Outputs**	**Power**	**Price**
DPM1-E-H	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	
DPM1-E-L					21-53 VAC, 50/60Hz 10.5-70 VDC	
DPM2-E-HL		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	
DPM2-E-2R-HL				2 Relays Form C SPDT		
DPM3-E-H	1/8 DIN	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	
DPM3-E-A2R-H				2 Relays Form C SPDT 4-20mA		
DPM3-E-L				None	22-53 VAC 10.5-70 VDC	
DPM3-E-A2R-L				2 Relays Form C SPDT 4-20mA		

DPM Series Digital Panel Meters Pulse, Frequency Input Selection Guide						
Model	**Size**	**Display**	**Inputs**	**Outputs**	**Power**	**Price**
DPM1-P-H	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	
DPM1-P-L					1-53 VAC 10.5-70 VDC	
DPM1-P-A2R-H		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	
DPM1-P-A2R-L					21-53 VAC 10.5-70 VDC	
DPM2-P-HL	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	
DPM2-P-2R-HL				2 Relays Form C SPDT 4-20mA		
DPM3-P-H		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	
DPM3-P-A2R-H				2 Relays Form C SPDT 4-20mA		
DPM3-P-L				None	22-53 VAC 10.5-70 VDC	
DPM3-P-A2R-L				2 Relays Form C SPDT 4-20mA		