

prosense® Advanced High Speed Process Panel Meters - DPM4-A-HS Series 1/8 DIN



Part No. [DPM4-A-HS-H](#)

The ProSense DPM4-A-HS series is a powerful high speed and versatile industrial measurement and display device. This advanced high speed digital display accepts sensor inputs of analog process signals, load cell, or potentiometer inputs. When equipped with either the [DPM-NPN](#) or [DPM-PNP](#) output card a setpoint output can be triggered on an input change in just 2.1 milliseconds or a response of only 5ms for the DPM-ANALOG output card. The meter also provides sensors with a selectable sensor excitation voltage. The DPM4-A-HS series features a 14mm character height red LED display plus secondary digit with 8mm character

height green LED display. Multiple output cards can be installed to add serial communications, discrete outputs, or analog output. The 1/8 DIN housing is easy to install in an enclosure and the meter face has an IP65 rating. Configuration parameters can be totally or selectively 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:

- 1/8 DIN (96 x 48mm)
- 5-digit (-9999 to 9999) red 14mm LED display plus secondary single digit green 8mm LED display
- Selectable decimal point
- High-speed sampling of process inputs
 - Voltage or mA
 - Load Cell (mV/V)
 - Potentiometer
- AC or DC powered models
- Selectable sensor excitation voltage
- Optional output cards
 - Analog output (0-10 V or 4-20 mA selectable)
 - Discrete output (Relay, NPN, or PNP)
 - Serial (RS232C or RS485)
- Linear direct or reverse scaling, non-linear up to 30 points, and teach mode
- 4 programmable inputs
- Total or selective configuration lock out



DPM4-A-HS Series Panel Meters

Model	Description	Weight (lbs)	Drawing Link	Price
DPM4-A-HS-H	ProSense digital panel meter, panel mount, 1/8 DIN, 14 mm 5-digit red LED and 8 mm 1-digit green LED, analog, load cell or potentiometer input, 115/230 VAC operating voltage.	1.28	PDF	\$350.00
DPM4-A-HS-L	ProSense digital panel meter, panel mount, 1/8 DIN, 14 mm 5-digit red LED and 8 mm 1-digit green LED, analog, load cell or potentiometer input, 10-30 VDC operating voltage.	0.82	PDF	\$370.00

DPM4-A-HS Series Panel Meters Technical Specifications

Process Input	Voltage input (pin 2 and 3)	± (0-5 / 0-10) V	Voltage input (pin 1 and 3)	± 0-1 V	Current input	± 0-20 mA
	Impedance	1 MΩ	Impedance	100 MΩ	Impedance	11.8 Ω
Load Cell or mV Input	Voltage input	± 30, ± 60, ± 120, ± 300, ± 500 mV 4-wires, unipolar or bipolar				
	Impedance	100 MΩ				



Advanced High Speed Process Panel Meters - DPM4-A-HS Series 1/8 DIN

DPM4-A-HS Series Panel Meter Technical Specifications Continued		
Potentiometer Input	Min. resistance	120Ω
	Excitation voltage	1.65 V
	Impedance (1 versus 3)	> 10 MΩ
Excitation	1.65 V @ 30 mA	Not adjustable
	24 V @ 30 mA	Not stabilized
	5 V ±100 mV @ 120 mA	Fine adjust. (50 ppm / °C)
	10 V ±100 mV @ 120 mA	Fine adjust. (50 ppm / °C)
Accuracy @ 23 °C ±5 °C	Error max.	± (0.1% reading+2 digits)
	Temperature coefficient	50 ppm/°C
	Warm-up time	10 minutes
Reaction Times	Peak value capture Minimum input signal duration	2.1 ms
	Reaction times	Hold-Display - Max. 10 ms Hold-Analog output - Max. 10 ms Hold-RS - Max. 10 ms
	Logic inputs	All - Max. 10 ms
Conversion (minimum input signal duration)	Technology	ΣΔ
	Resolution	± 15 bits
	Rate	555 / s
	Peak measurement resolution	± 15 bits
Display	Main	-9999 / +9999, 5 red digits 14mm
	Auxiliary	1 green digit, 8mm
	Decimal point	Programmable
	LEDs	14 (functions and outputs)
	Display update time	10/s (100 ms)
Error Indications	Negative overflow	- oUFLo
	Positive overflow	+ oUFLo
Power Supply	Power	115/ 230 V (± 10%) 50/60 Hz AC or 10 to 30 VDC
	Consumption	5W (without options), 10W (max.)
	Recommended fusing (not supplied)	115/230 VAC model: Fast acting 0.2A / 250V 10 to 30 VDC model: Fast acting 2A /250V
Environmental (Indoor Use)	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 condensed)	< 95% to 40°C (104°F)
	Altitude	2000 meters
	Panel cut-out	92x45 mm
	Case material	polycarbonate s/UL 94 V-0
	Front sealing	IP65

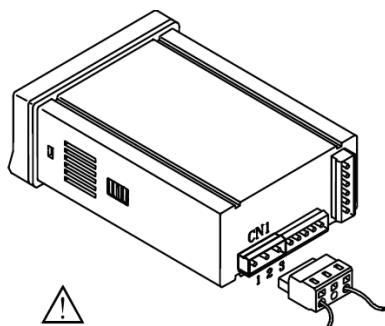


Advanced High Speed Process Panel Meters - DPM4-A-HS Series 1/8 DIN

Maximum and Minimum Input Signal Ranges			
<i>Proc. V</i>	<i>Pins</i>	<i>Min.</i>	<i>Max.</i>
0-10 V	2-3	-13.5	+13.5
0-5 V	2-3	-6.6	+6.5
0-1 V	1-3	-1.2	+1.2
<i>Proc. mA</i>	<i>Pins</i>	<i>Min.</i>	<i>Max.</i>
0-20 mA	4-3	-25	+25
<i>Load</i>	<i>Pins</i>	<i>Min.</i>	<i>Max.</i>
30 mV	1-3	-38	+38
60 mV	1-3	-75	+75
120 mV	1-3	-150	+150
300 mV	1-3	-305	+305
500 mV	1-3	-600	+600
<i>Pot.</i>	<i>Pins</i>	<i>Min.</i>	<i>Max.</i>
1.65 V	1-3	0	+2.0

Wiring

Power Supply Wiring

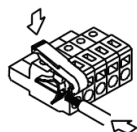


AC VERSIONS

PIN 1 - LINE
PIN 2 - GND (GROUND)
PIN 3 - NEUTRAL

DC VERSIONS

PIN 1 - DC POSITIVE
PIN 2 - No connection
PIN 3 - DC NEGATIVE



Manual

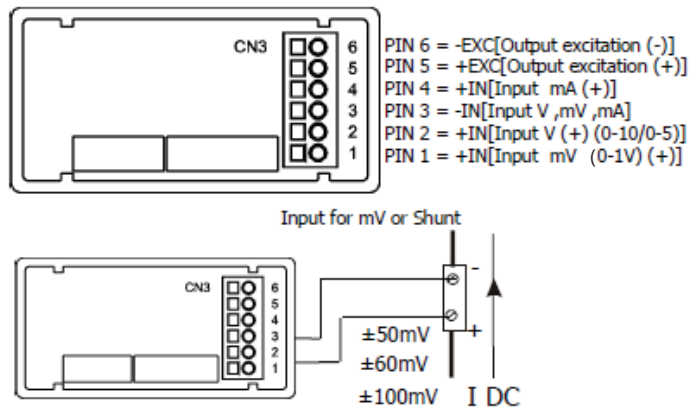


Scan or click the above QR code to
be taken to the DPM4-A-HS Series
Manual

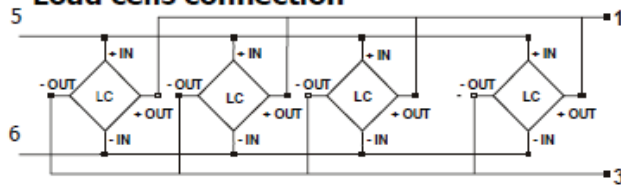
Advanced High Speed Process Panel Meters - DPM4-A-HS Series 1/8 DIN

Wiring

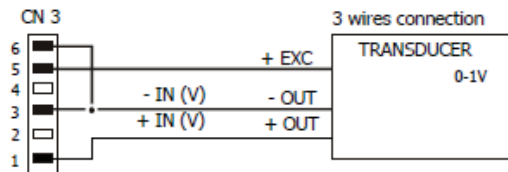
Input type connection



Load cells connection

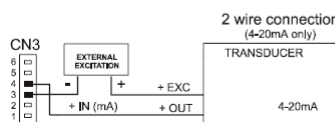
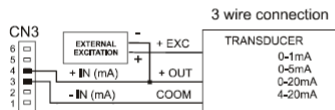
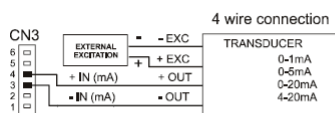


Transmitter connection 0-1V

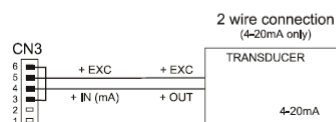
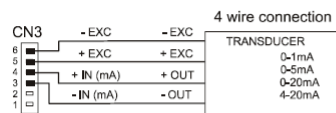


For input process signal mA

CONNECTION WITH EXTERNAL EXCITATION

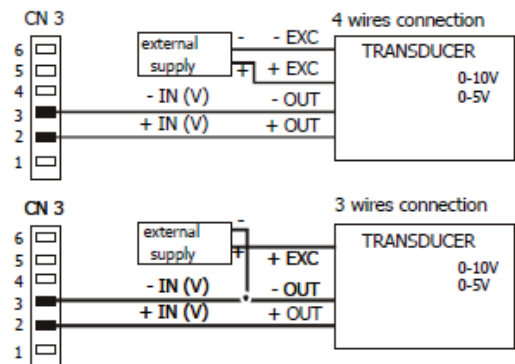


EXCITATION

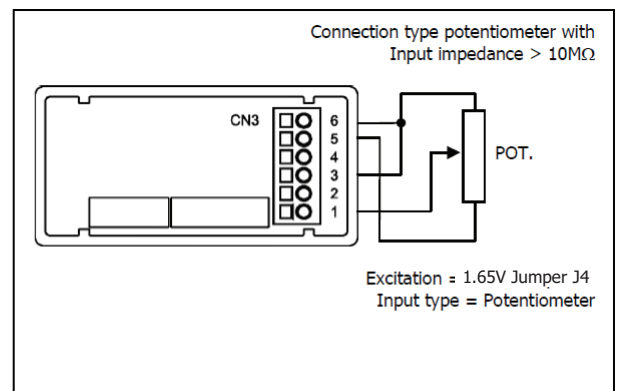
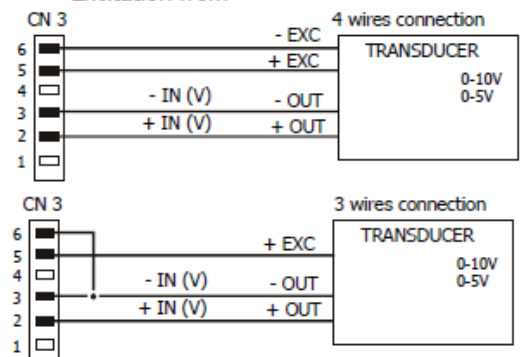


Transmitter connection 0-10V or 0-5V

External power supply connection



Excitation from DPM4



Front Panel in Run Mode



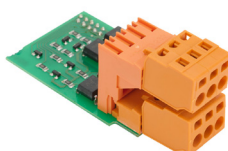
pro^{sense} Advanced High Speed Process Panel Meters - DPM4 Series - Accessories

DPM accessory cards are easily installed into the DPM4 meters to add additional functionality. The DPM-ANALOG card adds a 0-10 VDC or 4-20 mA output that is menu selectable between the two options once installed. Four discrete outputs can be added by installing a [DPM-RELAY](#). The [DPM-RS232](#), [DPM-NPN](#), [DPM-PNP](#) or [DPM-RS485](#) can be added to provide serial communications via ASCII, ISO, or

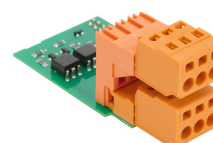
MODBUS RTU protocols. These serial communications cards allow for commands or transmission of data to a display, PLC, computer, thermal printer, as well as other devices. The DPM4 meters can host up to three cards (one analog, one discrete, and one serial) to customize the meter to many different applications.



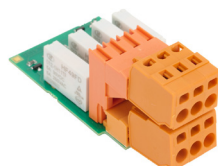
Part No. [DPM-ANALOG](#)



Part No. [DPM-NPN](#)



Part No. [DPM-PNP](#)



Part No. [DPM-RELAY](#)



Part No. [DPM-RS232](#)



Part No. [DPM-RS485](#)

DPM4 Series Panel Meter Accessories			
Model	Description	Weight (lbs)	Price
DPM-ANALOG	ProSense analog output module, 1-channel, current/voltage, 12-bit, isolated.	0.062 lb	\$52.00
DPM-NPN	ProSense discrete output module, 4-point, 50 VDC, sinking, 1 common(s), 4 point(s) per common, 50 mA/point.	0.076 lb	\$39.00
DPM-PNP	ProSense discrete output module, 4-point, 50 VDC, sourcing, 1 common(s), 4 point(s) per common, 50 mA/point.	0.076 lb	\$39.00
DPM-RELAY	ProSense relay output module, 4-point, 277 VAC/125 VDC, (4) Form A, 1 common(s), 4 point(s) per common, 5 A/point.	0.098 lb	\$39.00
DPM-RS232	ProSense communication module, Modbus RTU and ASCII, 1 port, (1) RS-232 (RJ11) port(s). For use with ProSense DPM4 series panel meters. 6 ft connection cable included.	0.126 lb	\$42.00
DPM-RS485	ProSense communication module, Modbus RTU and ASCII, 1 port, (1) RS-485 (RJ12) port(s). For use with ProSense DPM4 series panel meters. 6 ft connection cable and splitter included.	0.154 lb	\$42.00



See the applicable DPM4 manual for install and setup instructions.