

## **Process Meter Manual**

The Process Meter is designed for engineers who need an effective solution to monitor and display data. It accepts a range of electrical inputs depending on the model and displays data via a multi-format screen. The unit can be configured for two different outputs including digital set-points or 4–20 mA analog outputs.

### **Environmental Ratings**

- Operating Temp: –10 to +60°C
- Storage Temp: –40 to +70°C
- Max Altitude: 2000 m
- Humidity: 0–85% (continuous), 0–95% (intermittent, non-condensing)
- Pollution Degree: 2
- IP Rating (front): IP65
- NEMA Rating (front): Type 4 & 12
- Certifications: CE, cULus, IEC 61010-1

### **Display and Power Rating**

- Display: 4-digit LCD, 12 mm digits, 40 bar-graph segments, 4 message characters
- Backlight colors: Red, Green, White
- Viewing angle:  $\pm 70^\circ$  (H & V)
- Input Power: 12–24V DC  $\pm 10\%$ , Max Power: 1.6W
- Isolation: 40V (voltage input), 30V (current input)

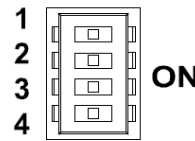
### **Electrical Connections**

- Screw terminals (solid/stranded wire)
- Cable Temp Rating:  $\geq 65^\circ\text{C}$
- Wire Strip Length: 6.5–7 mm (0.26–0.28")
- Wire Gauge: 18–12 AWG (0.8–3.3 mm<sup>2</sup>)
- Terminal Torque: 0.5–0.6 Nm (4.42–5.31 lbf-in)

## DIP Switch Configuration

DIP switches allow users to set the bar graph range and annunciator values. Positions: 0 = OFF, 1 = ON. The default setting is 0000, but custom settings are available via the software application.

Sw Pos		Input		Bar Graph			
Item	1234	Type	Min	1/2	Max		
1	0000	Custom (Defined in Software Application)					
2	1000	Voltage (0 – 10V)	0	50	100	V %	
3	0100	Voltage (0 – 5V)	0	50	100	V %	
4	1100	Voltage (-10 – 10V)	-100	0	100	V %	
5	0010	Current (4 – 20mA)	0	50	100	I %	
6	1010	Current (4 – 20mA)	0	250	500	I °F	
7	0110	Current (4 – 20mA)	0	375	750	I °F	
8	1110	Current (4 – 20mA)	0	500	1000	I °F	
9	0001	Current (0 – 20mA)	0	750	1500	I °F	
10	1001	Voltage (0 – 10V)	0	90	180	RPM	
11	0101	Voltage (0 – 5V)	0	90	180	RPM	
12	1101	Voltage (-10 – 10V)	-180	0	180	RPM	
13	0011	Current (4 – 20mA)	0	50	100	I °C	
14	1011	Current (4 – 20mA)	0	75	150	I °C	
15	0111	Current (4 – 20mA)	0	100	200	I °C	
16	1111	Current (4 – 20mA)	0	250	500	I °C	



The DIP switches are on the back of the unit.

## Installation & Safety

- Install this product in accordance with local regulations, codes and instructions.
- All fuses must be 0.5A / 250V Type F with a breaking capacity of 35A or greater.
- All conductors carrying hazardous voltage must have external switching or disconnect mechanisms fitted that provide at least 3 mm of contact separation in all poles.
- Signal cables connected to this device must not exceed 30 meters long.
- If signal cables are routed outside the building, install extra surge-protection devices.
- Power supply, current input, USB and all outputs: Observe maximum allowable voltages. All circuits connected to these connectors must be limited-energy and insulated by double/reinforced insulation from mains voltages according to IEC 61010-1:2010.

## Input Rating

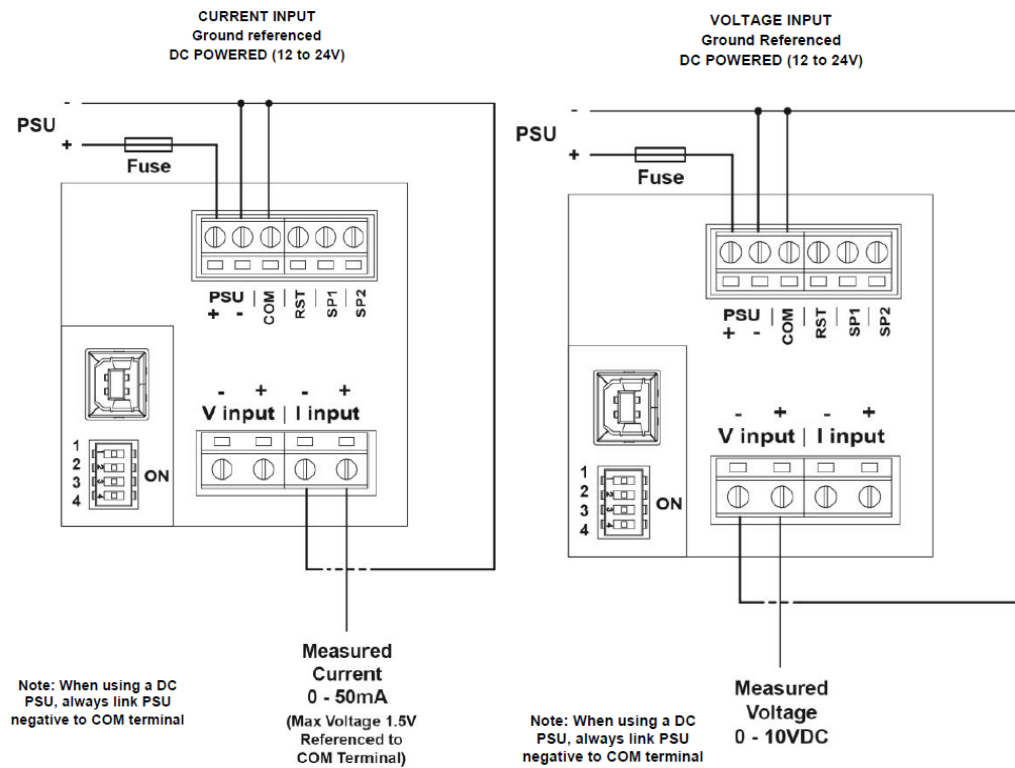
- Voltage Range: 0–10 VDC, Impedance: 100 kΩ, Accuracy: 0.1% or 5 mV
- Current Range: 0–50 mA, Impedance: 15 Ω, Accuracy: 0.01% or 5 μA
- Max Working Voltage (Input to COM): Voltage: 11V, Current: 1.5V
- Max Continuous Voltage Withstand: Voltage: 600 VDC, Current: 30 VDC

## Output Options

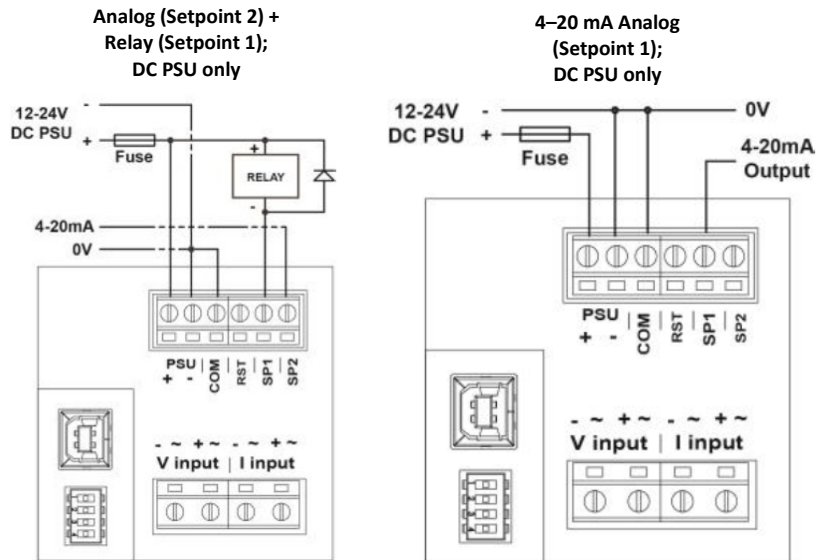
- 4–20 mA analog output (setpoint 1) – DC PSU only
- Diode-protected relay output (setpoint 1) – DC PSU only
- Analog + relay using both setpoints – DC PSU only
- Reset input with peak hold – DC PSU only
- Configuration via software: upon request

## Wiring Diagrams

### Inputs:



## Outputs:



**Important Note:** Connecting to the wrong terminals and energizing the unit may destroy meter.

## Maintenance

- Isolate power before cleaning or maintenance.
- No user-serviceable parts inside – Do not open the unit.
- Inspect wiring regularly and use dry cloth for cleaning.

For additional questions, contact us @ [sales@innovatechs.us](mailto:sales@innovatechs.us)