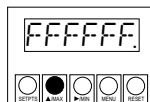# 5

Set Default Decimal Point
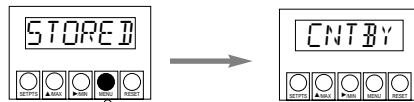
1. Press MENU. The meter displays:

`DEC PT`

2. Press ▶/MIN to display the current decimal point. Change the display, if necessary, to read "FFFFFF." (Use ▲/MAX to change the decimal point position).

`FFFFFF.`

3. Press MENU. The meter stores changes (if applicable), then displays "CNT BY".

`STORED` → `CNTBY`

4. Press RESET twice. The meter momentarily displays "RESET 2" then returns to the run mode. The meter will now read the input signal (4mA = ≈ 000000. and 20mA = ≈ 020000.).
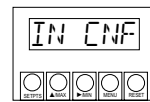
Measure and Record Input Values

1. Apply 4mA to the input and record the display reading.
   INPUT 1 = _____
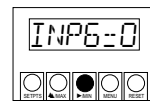   Refer to this as Input One.
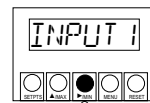
`INPUT 1`

2. Apply 20mA to the input and record the display reading.
   INPUT 2 = _____
   Refer to this as Input Two.

`INPUT2`
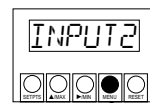
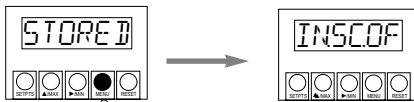3. Press MENU until the meter displays:
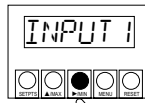
`IN CNF`

4. Press MENU until the meter displays:

Press ▶/MIN to display "INP6=0" Change the meter to read "INP.6=1" (Use ▶/MIN to scroll through digits and ▲/MAX to change the digit's value).

`INP6=0`

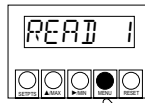5. Press MENU. The meter stores changes and displays:

`STORED` → `INSCOF`

6

Scale Input Values

1. Press ▶/MIN to display "INPUT 1":

   Press ▶/MIN again. The meter displays "000000". Enter the INPUT 1 value recorded in step 1 of the Measure Input Values section of this quick start.

`INPUT 1`

2. Press MENU. The meter displays "READ 1":

   Press ▶/MIN to display a six-digit number. Change the meter to read "000000". (Use ▶/MIN to scroll through digits and ▲/MAX to change the digit's value.)

`READ 1`

3. Press MENU. The meter displays "INPUT 2":
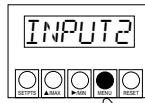
   Press ▶/MIN. The meter displays "000000". Enter the INPUT 2 value recorded in step 2 of the Measure Input Values section of this quick start.

`INPUT2`

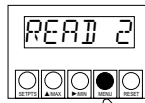4. Press MENU. The meter displays "READ 2":

   Press ▶/MIN to display a six digit number. Change the meter to read "001000". (Use ▶/MIN to scroll through digits and ▲/MAX to change the digit's value.)

`READ 2`

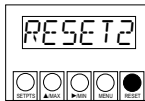5. Press MENU. The meter stores changes and displays:

`STORED` → `DEC PT`

6. Press ▶/MIN to display the current decimal point. Press ▲/MAX to change the decimal point location to "FFFFF.F".

7. Press MENU. The meter stores this change, then displays "CNT BY"

`STORED` → `CNTBY`

8. Press RESET twice. The meter displays: "RESET 2", then returns to the run mode. The meter is now scaled to read 0 to 100.0 for a 4-20 mA input.

`RESET2`

QUICK START

For complete product manual:
www.omega.com/manuals/manualpdf/M1297.pdf

.5 YEAR WARRANTY

DP41-E
High Performance Process Indicator

ΩΕ OMEGA™

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The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

Using This Quick Start Manual

Use this Quick Start Manual to get your High Performance Process Indicator up and running. These instructions use the factory default settings of current input and **24 Vdc** sensor excitation.

Note ☞ The latest complete Communication and Operational Manual as well as **free Software** are available at **www.omega.com**

To start your unit you:
- connect ac power
- wire the sensor
- configure the meter, using the front panel buttons and the configuration menus

Before You Begin

This quick start manual uses the 4 - 20mA range. If your meter is setup for a different range, consult the Operator's manual.

In addition to the unit and related parts, you will need the following items to set up your unit:

- ac power, as listed on meter's Product/ID
- 4-20mA input (eg: load cell, calibrator)
- 1/8" Phillips head screwdriver
- 1/8" flat blade screwdriver

⚠️ **Warning: Do not connect AC power to your device until you have completed all input and output connections. This device must only be installed by a specially trained electrician with corresponding qualifications. Failure to follow all instructions and warnings may result in injury!**

Safety Consideration

⚠️ **This device is marked with the international Caution symbol.**

The instrument is a device protected in accordance with UL 61010:2010 Electrical Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory. The device has no power-on switch. Installations must include a switch or circuit breaker that is compliant to IEC 947-1 and 947-3. It must be suitably located to be easily reached and marked as the disconnecting devise for the equipment.
Use copper conductors only, minimum 20 AWG, UL Rated, for power connection. Insulation must be rated for at least 85C and 600V.

SAFETY:
- Do not exceed voltage rating on the label located on the top of the instrument housing.
- Always disconnect power before changing signal and power connections.
- Do not use this instrument on a work bench without its case for safety reasons.
- Do not operate this instrument in flammable or explosive atmospheres.
- Do not expose this instrument to rain or moisture.

Connect AC Power
1. Remove the rear protective cover and set it aside. The cover is secured with a Phillips-head screw.
2. Locate connector P1 on the bottom-left-rear of the unit.
3. The connector has three screw-down terminals.
   Insert the correct wire in each terminal and tighten the lockdown screw. Tug gently on each wire to verify the connection. Use copper conductors only, minimum 20 AWG
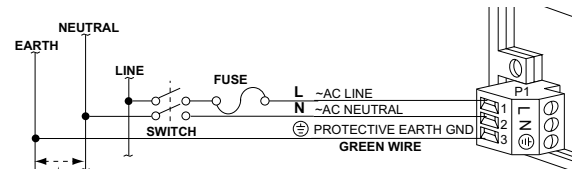
EXTERNAL FUSE WIRED
115 Vac IEC127-2/III, 125mA, 250V (Time-Lag)
or UL Slow-Blow, 125mA, 250V
230 Vac IEC127-2/III, 63mA, 250V (Time-Lag)
or UL Slow-Blow, 63mA, 250V

**Caution:** Use only provided terminal. Torque all connections 0.4 to 0.5 Nm.

2

Wiring a Current Transmitter

Follow these steps to wire a current input sensor with sensor excitation.
1. Locate connectors P3 & P9 on the right-side-rear of the unit.
2. Attach the wires and tighten the retaining screws. Tug gently on the wires to verify the connection.

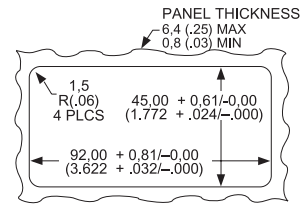### Wiring Example: Current Input with Sensor Excitation
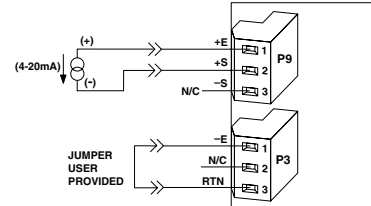
3. Apply ac power. The front panel of the unit flashes R. If it does not:
   a. Remove ac power.
   b. Verify the P1 power and P3 and P9 input connections.
   c. Check your power source.
   d. Check your signal source.
4. Replace the rear cover. Thread the sensor wires through the slots on the side of the cover. Replace the rear cover screw.
5. Apply ac power once again.

Mount the Unit
1. Cut a panel opening using the dimensions shown to the right.
2. Position the unit in the opening, making sure the front bezel/gasket is flush with the panel.
3. From the rear of the panel, slide the sleeve forward over the case and up to the panel surface.
4. The panel should now be sandwiched between the bezel-backed gasket in front and the sleeve in back.
5. Replace the thumbnuts that secure the sleeve tabs to the case.

PANEL THICKNESS
6,4 (.25) MAX
0,8 (.03) MIN

1,5 R(.06) 4 PLCS   45,00 + 0.61/–0,00 (1.772 + .024/–.000)

92,00 + 0,81/–0,00 (3.622 + .032/–.000)

NOTE: Dimensions in Millimeters (Inches)

Configure the Meter
Use the front panel buttons to access the configuration menus, to either verify or set the unit values. The function of each button is described below:

Meter Button Descriptions

Press This Button To:

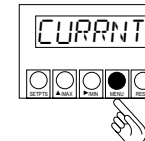| Button	Function
SETPTS	sequentially recall previous setpoint settings (run mode only), store new setpoint values.
MENU	access the configuration program menus and move from one menu to the next.
▶/MIN	enter and scroll through a submenu.
▲/MAX	change the value of a submenu.
RESET	move backward one menu (press once) or exit the configuration menus (press twice).

3

Quick Start Setup

Quick Start Setup scales your meter to read 0 to 100.0 for a 4 - 20mA input. This setup procedure is actually a series of short tasks. To complete Quick Start Setup successfully, it is important to perform all tasks in the order outlined in the Quick Start Setup.

Select Input Range
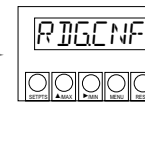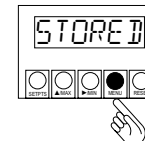
1. Press MENU until the meter displays: **INPUT**
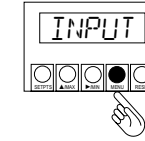
2. Press ▶/MIN until the meter flashes: **CURRNT** Press MENU and "CURRNT" stops flashing.
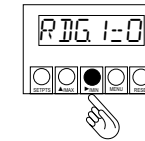   Press ▶/MIN to display a flashing input range of 4-20mA or 0-20 mA.
   Press ▲/MAX until the meter displays "4-20mA."

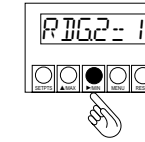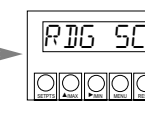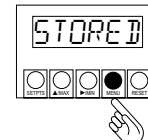3. Press MENU. The meter stores changes (if applicable), then displays "RDG.CNF": **STORED** → **RDGCNF**

Set Up Reading Configuration

1. Press ▶/MIN to display "RDG.1". Press ▲/MAX until the meter displays "RDG.1=0". Selecting "RDG.1=0" enables direct formatting. **RDG 1=0**

2. Press ▶/MIN to display "RDG.2". Press ▲/MAX until the meter displays "RDG.2=1". Selecting "RDG.2=1" enables an active decimal point. **RDG2=1**
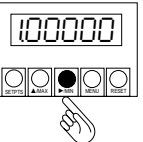
3. Press MENU. The meter stores changes (if applicable), then displays "RDG SC": **STORED** → **RDG SC**
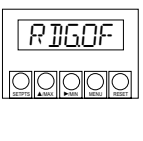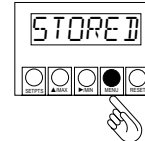
---

4

Set Reading Scale Factor and Reading Offset

1. Press ▶/MIN to display the scale factor value. Change the value, if necessary, to read "1.00000" (Use ▶/MIN to scroll through digits and ▲/MAX to change the digit's value). **100000**
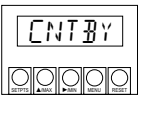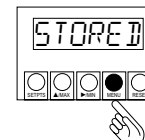
2. Press MENU. The meter stores changes (if applicable) then displays "RDG.OF": **STORED** → **RDGOF**

3. Press ▶/MIN to display the offset value. Change the value, if necessary, to read "000000" (Use ▶/MIN to scroll through digits and ▲/MAX to change the digit's value). **000000**
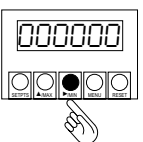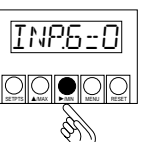
4. Press MENU. The meter stores change, if applicable, then displays "IN CNF". **STORED** → **CNTBY**

Set Default Input Scale and Offset

1. Press ▶/MIN until the meter flashes. Change the value, if necessary, to read "INP.6=0" (Use ▶/MIN to scroll through INP submenu choices and ▲/MAX to select 0 as the value). Setting "INP.6=0" disables input scale and offset. **INP6=0**

2. Press MENU. The meter stores changes, if applicable, then displays "IN.SC.OF". **STORED** → **INSCOF**