Step 11. Enter to the Thermocouple Type Input Submenu
Press to display flashing, previously selected Thermocouple type.
Step 12. Scroll through available selection of TC types
Press to sequence thru flashing Thermocouple types, (select k for type “K” and CHROMEGA®/ALOMEGA®)
Step 13. Store TC type
After you have selected the Thermocouple type press to store your selection, the instrument automatically advances to the next menu item.
Step 14. Enter to Reading Configuration Menu
The display shows Configuration, which is the top menu for 4 submenus: Display Point, Units, Filter Constant and Input/Reading Submenus.
Step 15. Enter to Decimal Point Submenu
Press to display Decimal Point.
Step 16. Display the Decimal Point position
Press again to display the flashing Decimal Point position.
Step 17. Select the Decimal Point position
Press to select Decimal Point position.
Step 18. Store selected Decimal Point position
By pressing momentarily the Decimal Point position will be stored and the instrument will go to the next menu item.
Step 19. Enter to Temperature Unit Submenu
Press to display the flashing Temperature Unit.
Step 20. Display available Temperature Units
Press to display the flashing Degree F or °F.
Step 21. Scroll through available Temperature Units selection
Press to select the Degree F or °F.
Step 22. Store the Temperature Unit
Press to display momentarily that the Degree Unit has been stored and the instrument will go automatically to the next menu item.
Step 23. Enter the Filter Constant Submenu
Display shows Filter Constant Submenu.
Step 24. Display the Filter Constant Value Submenu
Press to display the flashing, previously selected Filter Constant.
Step 25. Scroll through available Filter Constants
Press to sequence thru Filter Constants °F, °C, °R, 0°C, 32°F, 100°F, 0°C, 32°F, 212°F, 0°C, 50°F, 122°F, 0°C, 149°F, 37°C, 0°C, 59°F, 100°C, 0°C, 212°F, 0°C, 378°F, 0°C, 662°F, 0°C, 751°F, 0°C, 842°F, 0°C, 932°F, 0°C, 1032°F.
Step 26. Store the Filter Constant
Press momentarily to store selected Filter Constant and the instrument will automatically go to the next menu item.
Step 27. Enter Alarm 1 Menu
The display will show [alarm] the top menu for Alarm 1. In the following steps we are going to enable Alarm 1. Deviation, Unlatch, Normally Open, Active Above, Enable at power on and/or “2” High Alarm. i.e. Process Value > Setpoint 1 Value “2” will activate Alarm 1.
Step 28. Enter Alarm 1 Enable/Disable Submenu
Press to display flashing [on] / [off].
Step 29. Enable Alarm 1 Disable/Enable Submenu
If flashing [on] is displayed, press [off], if [off] is displayed, press [on], then press [on] to store and go to the next menu item.
Step 30. Select the Deviation Control Type Submenu
Press if flashing [off] is displayed press [on], otherwise press [off] until flashing [on] is shown. Now press to store and go to next menu item.
Step 31. Select the Latched Type Submenu
Press if flashing [latched] is unlatched is displayed press [on], otherwise press until flashing [latched] is displayed. Press to store and advance to next menu item.
Step 32. Select the Normally Open Type of Contact Closure Submenu
Press if flashing [Normally Open] is displayed, otherwise press until flashing [Normally Closed] is displayed. Press to store and advance to next menu item.
Step 33. Select the Above Type of Active Submenu
Press if flashing [unlatched] is displayed, press [latched], otherwise press until flashing [latched] is displayed. Press to store and advance to next menu item.
Step 34. Enable Alarm 1 at Power On
Step 35. Set the Alarm 1 High value
Press three times to enter Alarm 1 High value (P100.0) (green),/ [on] (red), [off] (amber). Please refer to the manufacturer’s manual if needed.
Step 36. Enter the Alarm 2 Menu
The display will show [alarm] the top menu for Alarm 2. Repeat steps 28 to 36 to set for Alarm 2 the same conditions as for Alarm 1.
Step 37. Configuration of Display Color Selection
Press until the [colr] Display Color Submenu is displayed. Press twice to select [enbl] (green), [red] (red), [ambr] (amber). Please refer to the manufacturer’s manual if needed.
Step 38. Configuration of Endurance Submenu
Press until the [end] Endurance Submenu is displayed. Press twice to select [ufe] (microscopic), and [ufa] (flawless). Please refer to the manufacturer’s manual if needed.
Step 39. Run a Test
Press until test the controller and return to RUN Mode to display [test] (Ambient Temperature). Now you are ready to observe temperature as it rises to 10°F higher than displayed. Touch the lip of the Thermocouple to raise the temperature above the Alarm 2 High Value °F and AL2, and UNL2 will turn on, and Display Color will change from Green to Amber. Continue touching the lip to raise the temperature above the Alarm 1 High Value °F and Display Color will change from Amber to Red.

SPECIFICATION
Accuracy
+0.25% Rdg +0.25 mdg +0.006°C/°C
Resolution
0.005°C/°C to 20°C (77°F); 50 ppm process
Display
4-digits, 9-segments LED, 21 mm (0.83") with red, green and amber programmable colors
Input Types:
Thermocouple, RTD, Analog Voltage and Current
TC (0-10V, 0-5V, 0-10mA, 0-50mV, 0-20mA, 0-40mA, 0-10V, 0-10mA, 0-50mA, 0-100mA, 0-24V)
Voltage: 0 to 100 mV, 0 to 1 V, 0 to 10 V
Current: 0 to 20 mA (± 20%), 0 to 50 mA (± 50%), 0 to 100 mA (± 100%), 0 to 400 mA (± 400%), 0 to 2020 mA (± 2020%), 0 to 5 A (± 50%)
Relay: 250 Vac @ 3 A
Switching: Resistive Load, SSR, Pulse, Pulse
DIN 19237

If you have any question, please contact us.

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This Quick Start Reference provides information on setting up your instrument for basic operation. The latest complete Communication and Operational Manual as well as free Software and ActiveX Controls are available at www.omega.com/specs/iseries or on the CD-ROM enclosed with your shipment.

SAFETY CONSIDERATION

This device is marked with the international Caution symbol.

The instrument is a panel mount device protected in accordance with EN 61010-1:2001, electrical safety requirements for electrical equipment for measurement, control and laboratory. Remember that the unit has no power-on switch. Building installation should include a switch or circuit-breaker that must be compliant to IEC 947-1 and 947-3.

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.

EMC:
- Whenever EMC is an issue, always use shielded cables.
- Never run signal and power wires in the same conduit.
- Use signal wire connections with twisted-pair cables.
- Install Ferrite Bead(s) on signal wire close to the instrument if EMC problems persist.

**SAFETY:**

- Whenever EMC is an issue, always use shielded cables.
- Never run signal and power wires in the same conduit.
- Use signal wire connections with twisted-pair cables.
- Install Ferrite Bead(s) on signal wire close to the instrument if EMC problems persist.

**EMC:**

- Whenever EMC is an issue, always use shielded cables.
- Never run signal and power wires in the same conduit.
- Use signal wire connections with twisted-pair cables.
- Install Ferrite Bead(s) on signal wire close to the instrument if EMC problems persist.

**WIRING**

Wire the instrument according to the figure shown below.

**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!

**MOUNTING**

1. Using the dimensions from the panel cutout diagram shown above, cut an opening in the panel.
2. Remove sleeve from the rear of the case by removing thumbnuts.
3. Insert the unit into the opening from the front of the panel, so the gasket seals between the bezel and the front of the panel.
4. Slip the sleeve over the rear of the case.
5. Tighten the thumbnuts to hold the unit firmly in the panel.

**Disassembly Instruction:**

If necessary, the board assembly may be removed from the front of the case housing.

**Warning:** Disconnect all ac power from the unit before proceeding.

1. Remove the board assembly from the case by pulling at the sides of the bezel.
2. The bezel along with the board assembly will unlatch from the case housing.

**CONFIGURATION**

**MENU Mode:**

- Flashing display in MENU Mode means you can make your selection by pressing button. If the flashing display is not a four digit value, pressing button will always direct the instrument one step backward of the top menu item. The second push on the button will reset the instrument except after the setpoint and the alarms, that will go to the RUN Mode without resetting the instrument. The button will always sequence the instrument thru the menu items.

- The button has two functions:
  1. To save a selected flashing display.
  2. To direct the instrument to the next submenu level.

**FLOW CHART**

Connect the main power connections as shown in the figure below.

**CONFIGURATION**

**MENU Mode:**

- Flashing display in MENU Mode means you can make your selection by pressing button. If the flashing display is not a four digit value, pressing button will always direct the instrument one step backward of the top menu item. The second push on the button will reset the instrument except after the setpoint and the alarms, that will go to the RUN Mode without resetting the instrument. The button will always sequence the instrument thru the menu items.

- The button has two functions:
  1. To save a selected flashing display.
  2. To direct the instrument to the next submenu level.

**OPERATION - (For Thermocouple Input)**

**Step 1. Apply Power to the Instrument**

When your device is first powered up it will display the ambient temperature (assumed 77°F).

**Step 2. Enter Setpoint 1 Menu**

Press one time from run mode to get to Setpoint 1 menu.

**Step 3. Enter the Setpoint 1 Value Submenu**

Press or until desired value is displayed.

**Step 4. Change the Setpoint 1 Value**

Press until desired value is displayed.

**Step 5. Store the Setpoint 1 Value**

Press to store, display flashes message and advances to Configuration Menu.

**Step 6. Store the Setpoint 2 Value**

Repeat steps 3 and 4. Set the Setpoint 2 to 5 degree higher than Process value (SP2 = 80) and press to store, display flashes message and advances to Setpoint 2 Menu.

**Step 7. Enter the Input Type Menu**

Press to enter Input Type Menu.

**Step 8. Enter to the submenu items of Input Menu**

Press until desired value is displayed.

**Step 9. Scroll through available selection of Input Menu**

Press until a flashing message and advance to Thermocouple Input Submenu.

**Step 10. Enter to the Thermocouple Input Submenu**

Press to enter Thermocouple Input Submenu. The display will step flashing and show the top menu for Thermocouple types. If you press controller will stop to next menu item (Skip to Step 11).

**Panel Mounting Instruction:**

1. Using the dimensions from the panel cutout diagram shown above, cut an opening in the panel.
2. Remove sleeve from the rear of the case by removing thumbnuts.
3. Insert the unit into the opening from the front of the panel, so the gasket seals between the bezel and the front of the panel.
4. Slip the sleeve over the rear of the case.
5. Tighten the thumbnuts to hold the unit firmly in the panel.

**Output 1 and 2 are for -AL Limit Alarm Option only.**

**Panel Mounting Instruction:**

1. Using the dimensions from the panel cutout diagram shown above, cut an opening in the panel.
2. Remove sleeve from the rear of the case by removing thumbnuts.
3. Insert the unit into the opening from the front of the panel, so the gasket seals between the bezel and the front of the panel.
4. Slip the sleeve over the rear of the case.
5. Tighten the thumbnuts to hold the unit firmly in the panel.

**Underline denotes factory default setup**

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