Step 10. Enter to the Thermocouple Input Submenu
Press  to store Thermocouple input. The display will show flashing and show the top menu for Thermocouple types. If you press  controller will step to next menu item (Skip to Step 14).

Step 11. Enter to the Thermocouple Type Input Submenu
Press  to display, previously selected Thermocouple type.

Step 12. Scroll through available selection of TC types
Press  to sequence thru flashing Thermocouple types, (select k-type “K CHROMEL-ALUMEL”).

Step 13. Select Type TC
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 “Reading Configuration” which is the top menu for 4 submenus: Decimal Point, Degree Units, Filter Constant and Input/Reading Submenus.

Step 15. Enter to Decimal Point Submenu
Press  to show  Decimal Point position.

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
Display shows °F Temperature Unit.

Step 20. Display available Temperature Units
Press  to display the flashing Degree or °.

Step 21. Scroll through Temperature Units selection
Press  to select Degree.

Step 22. Store the Temperature Unit
Press  to display momentarily if the Degree Unit has been stored and the instrument will go automatically to the next menu item.

Step 23. Enter to the Filter Constant Submenu
Display shows °/D Filter Constant.

Step 24. Display the Filter Constant value Submenu
Press  to display, previously selected Filter Constant.

Step 25. Scroll through available Filter Constants
Press  to sequence thru Filter Constants 0008 / 0016 / 0032 / 0064 / 0128 / 0256 / 0512 / 1024

Step 26. Store the Filter Constant
Press  momentarily to store Filter Constant and the instrument will automatically go to the next menu item.

Step 27. Enter Alarm 1 Menu
The display will show °/D the top menu for Alarm 1. In the following steps we are going to enable Alarm 1, Deviation, Unatch, Normally Open, Active Above, Enable at power on and +2°F High alarm i.e. Process Value > Setpoint Value +2°F will activate Alarm 1.

Step 28. Enter Alarm 1 Enable/Disable Submenu
Press  to display flashing 0000 / 0001

Step 29. Enable Alarm 1 Submenu
If  Press  to store and显示, press  until  is displayed, then press  to store and go to the next menu item.

Step 30. Select the Deviation Control Type Submenu
Press  to display flashing, previously press  unless  is shown. Now press  to store and go to next menu item.

Step 31. Select the Latched Type Submenu
Press  if flashing  Unlatched is displayed press  otherwise press  until  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  is displayed. Press  to store and advance to next menu item.

Step 33. Select the Above Type of Active Submenu
Press  if flashing Above is displayed, press  otherwise press  until  is displayed. Press  to store and advance to next menu item.

Step 34. Enable Alarm 1 at Power On
Press  if  flashing is displayed, press  otherwise press  until  is displayed. Press  to store and advance to next menu item.

Step 35. Enter Alarm 1 High Submenu
Press  twice to skip °/D Alarm 1 Low value.  is for below & °/D for above.

Step 36. Set the Alarm 1 High value
Press  Press  to save.

Step 37. Enter the Alarm 2 Menu
The display will show °/D the top menu for Alarm 2. Repeat steps from 28 to 36 to set for Alarm 2 the same conditions as for Alarm 1.

Step 38. Configuration of Display Color Selection

Step 39. Run a Test
Press  until set the controller and return to RUN Mode to display °/D Ambient Temperature. Now you are ready to test (see note 1) 10°F higher than displayed. Touch the tip of the Thermocouple to raise the temperature above the Alarm 2 High value °/D, and AL2 will turn on, and Display Color will change from Green to Amber. Continue touching the tip to raise the temperature above the Alarm 1 High value °/D, and AL1 Color will change from Amber to Red. Annunciator “1” is turning on and off displaying output 1.

SPECIFICATION

Accuracy
0.05°C ±2°C when in steady state.

Process Temp. Range
-50 to +50°C

20°C to 60°C

Humidity
5% to 95% RH non condensing

Ambient Temp.
0 to 40°C

Display
4-digit, 8-segment LED, 10.2 mm (0.40”) with red, green and amber programmable colors

Input Type
Thermocouple, RTD, Analog Voltage and Current

RTD: 1005001000 ohm Pt Sensor 2 to 5, ±4%, 0.00503 or 0.00023

Voltage: 0 to 100 mV, 0 to 1 V or 0 to 5 V

Current: 0 to 20 mA (4 to 20 mA)

Warranty
1 year from the date of shipment for all of OMEGA Engineering, Inc. except where noted above.

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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.newportUS.com 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 EN61010-1:2001. 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 reason.
- 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.

Panel Mounting Instruction:

1. Using the dimensions from the panel cutout diagram shown above, cut an opening in the panel.
2. 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.
3. Slide the retainer over the rear of the case and tighten against the backside of the mounting panel.

Disassembly instruction:

If necessary, the unit may be removed from the panel and opened.

Warning: Do not connect ac power to your power cord 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!

WIRING

Wiring 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!

FLOW CHART

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

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

Underline denotes factory default setup

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 75°F).

Step 2. Enter Setpoint 1 Menu

Press until desired value is displayed.

Step 3. Change the Setpoint 1 Value

Press . Display shows the previous selection of Setpoint 1.

Step 4. Change the Setpoint 2 Value

Press . Display shows the previous selection of Setpoint 2.

Step 5. Store the Setpoint 1 Value

Press. Displays shows the previous selection of Setpoint 1 for Thermocouple is displayed.

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 and advances to Configuration Menu.

Step 7. Enter the Input Type Menu

Press to enter Input Type Menu.

Step 8. Enter to the submenu items of Input Menu

If flashing is displayed press and proceed to step 11.

Step 9. Scroll through available selection of Input Menu

Press until a flashing is displayed press and proceed to step 11.