The Large Displays are easy to configure and scale to virtually any engineering units with the push buttons on the front panel, or with a personal computer using the free configuration software and the optional Ethernet connectivity or Serial Communications. The Ethernet option allows the device to be connected on a standard Ethernet network and communicates using standard TCP/IP protocol. The Ethernet option (-C4EI) also includes RS485 (and RS422) Serial Communications. The serial communications option (-C24) includes both RS232 and RS485 (and RS422) on one instrument. It communicates with a straightforward ASCII communications protocol, as well as MODBUS protocol.

Control Functions
The Universal Large Displays features a choice of two optional outputs: Form C SPDT (single pole double throw) mechanical relays (-3), Solid State Relays (-2), DC pulse (-4), and/or programmable analog output (-5) selectable as either a controlling function or as retransmission of the process value.

The Universal Large Displays can control simple manual operation to ON-OFF and full Autotune PID control. (Selectable preset tune, adaptive tune, PID, PI, PD control modes.) The dual control outputs can be configured for a variety of independent control and alarm applications. The ramp-to-setpoint feature allows the user to define the rate of rise to setpoint, minimizing thermal shock to the load during start-up. Maximum ramp time: 99.59 (HH.MM), Soak: 00.00 to 99.59 (HH.MM), Damping: 1 to 8 in unit steps. Input types: 0 to 20 mA, 0 to 100 mV, 0 to 1 V, and 0 to 10 Vdc.

For applications that do not require PID control, Universal Large Displays controllers are available in a special model that offer simplified programming. The Universal Large Displays “Simplified Menu” model (specify -SM option) offers simplified programming. The menu flowchart is similar to programmable digital panel meters that are used for on/off control or alarms. (Please see the Universal Large Displays operator’s manuals for programming details.)
Programmable Color Display

The Large Display can be programmed to change colors between RED, AMBER, and GREEN at any set point or alarm point. The Large Display has a wide range of input values as well as control, alarm, and communication outputs including: RS232, RS485, MODBUS®, and Ethernet. The device with an embedded Web Server can connect directly to Ethernet/Internet. You can "see" your meter and control your process through a web browser over the Internet from halfway around the world. With the Large Display, you can also see your meter from a hundred feet.

The Large Display can be mounted flush in a panel or surface mounted with the included brackets. The entire Large Display enclosure provides NEMA 1 protection.

Configuration of the iLD-UTP or iLD-SP can be performed by using either -C24 or -C4EI options and the configuration software that is available on our website.

Universal Temperature and Process Input (Model UTP)

Accuracy: ±0.5°C temp; 0.03% reading process
Resolution: 1°/0.1°; 10 µV process
Temperature Stability:
   RTD: 0.04°C/C
   Thermocouple @ 25°C (77°F):
      0.05°C/C—cold junction compensation
Process: 50 ppm/C
NMRR: 60 dB; CMRR: 120 dB
A/D Conversion: Dual slope
Reading Rate: 3 samples per second
Digital Filter: Programmable
Display: 4-digit, 7-segment LED

Universal Strain and Process Input (Model SP)

Accuracy: 0.03% reading
Resolution: 10/1µV
Temperature Stability: 50 ppm/°C
NMRR: 60 dB; CMRR: 120 dB
A/D Conversion: Dual slope
Reading Rate: 3 samples per second
Digital Filter: Programmable
Input Types: Analog voltage, analog current
Voltage Input:
   0 to 100 mV, 0 to 1 V, 0 to 10 Vdc
Input Impedance:
   10 MΩ for 1 or 10 Vdc
Current Input:
   0 to 20 mA (5 load)
Configuration: Single-ended
Polarity: Unipolar
Step Response: 0.7 sec for 99.9%
Decimal Selection: None, 0.1, 0.01 or 0.001
Setpoint Adjustment: -1999 to 9999 cts
Span Adjustment: 0.001 to 9999 cts
Offset Adjustment: -1999 to 9999
Excitation (Optional in Place of Communication):
24 Vdc @ 25 mA

Step Response:
0.7 sec for 99.9%
Decimal Selection:
None, 0.1, 0.01 or 0.001
Setpoint Adjustment:
-1999 to 9999 cts
Span Adjustment:
0.001 to 9999 cts
Offset Adjustment:
-1999 to 9999
Excitation (Optional in Place of Communication):
24 Vdc @ 25 mA

To Order

<table>
<thead>
<tr>
<th>Basic Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Universal Temperature Thermocouple, RTD and Process Input</strong></td>
<td></td>
</tr>
<tr>
<td>iLD24-UTP</td>
<td>57 mm (2.25&quot;) 4-digit display, universal temperature/process, monitor</td>
</tr>
<tr>
<td>iLD44-UTP</td>
<td>101 mm (4&quot;) 4-digit display, universal temperature/process, monitor</td>
</tr>
</tbody>
</table>

| **Strain Gage and Process Input** |
| iLD24-SP | 57 mm (2.25") 4-digit display, strain gage/process, monitor |
| iLD44-SP | 101 mm (4") 4-digit display, strain gage/process, monitor |

**Control Outputs**

-33 2 relays—form “C” SPDT 3 A @ 120/240 Vac

**Communication Options**

- C24 Isolated RS232 and RS485/RS422
- C4EI Ethernet with embedded Web server + RS485/RS422
- FS Factory scaling (no charge, see factory scaling table above for required information)

Ordering Example: iLD24-UTP-33-C24, large 57.2 mm (2.25") 4-digit controller with temperature/process input, 2 relays and serial communication.