Ultrasonic Sensors
With Analog Output

Technical Data Sheet

Model: UT30UP-DCA4-1016-CSI
Part Number: 7600-448-001

Model: UT30UP-DCA4-2032-CSI
Part Number: 7600-448-002
Ultrasonic Sensors
with Analog Output

4-20mA and 0-10V
Wire selectable inverted
or non-inverted outputs

<table>
<thead>
<tr>
<th>Sensing range</th>
<th>101..1016 mm (4-40&quot;)</th>
<th>203..2032 mm (8-80&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switching functions/output</td>
<td>Analog 4-20mA and 0-10V</td>
<td>Analog 4-20mA and 0-10V</td>
</tr>
<tr>
<td>Ordering Information</td>
<td>Model description</td>
<td>Part number</td>
</tr>
<tr>
<td></td>
<td>UT30UP-DCA4-1016-CSI</td>
<td>7600-448-001</td>
</tr>
<tr>
<td></td>
<td>UT30UP-DCA4-2032-CSI</td>
<td>7600-448-002</td>
</tr>
</tbody>
</table>

### Electrical data

<table>
<thead>
<tr>
<th>Voltage range, min./max.</th>
<th>20-30V DC reverse polarity protected</th>
<th>20-30V DC reverse polarity protected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input current</td>
<td>50mA</td>
<td>50mA</td>
</tr>
<tr>
<td>Transducer frequency</td>
<td>212 KHz</td>
<td>150 KHz</td>
</tr>
<tr>
<td>Short circuit protected</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>LED - (strength indicator)</td>
<td>Yes - green to red; see (Note D)</td>
<td>Yes - green to red; see (Note D)</td>
</tr>
<tr>
<td>Response time</td>
<td>30 mSec</td>
<td>50 mSec</td>
</tr>
<tr>
<td>Range control</td>
<td>Zero and span (2 potentiometers)</td>
<td>Zero and span (2 potentiometers)</td>
</tr>
</tbody>
</table>

### Mechanical Data

<table>
<thead>
<tr>
<th>Temperature range, min./max</th>
<th>0°C/+60°C / 32°F/140°F</th>
<th>0°C/+60°C / 32°F/140°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of protection</td>
<td>IP 65/NEMA 12</td>
<td>IP 65/NEMA 12</td>
</tr>
<tr>
<td>Body material</td>
<td>Valox plastic</td>
<td>Valox plastic</td>
</tr>
<tr>
<td>Termination</td>
<td>cable 2 m/6 ft. PVC 4 x 22 gauge</td>
<td>Versions available to order</td>
</tr>
<tr>
<td>Body material</td>
<td>Plug/socket</td>
<td>1) Brackets</td>
</tr>
<tr>
<td>Accessories</td>
<td>1) Brackets</td>
<td>0-95% non-condensing</td>
</tr>
<tr>
<td>Humidity</td>
<td>0-95% non-condensing</td>
<td></td>
</tr>
</tbody>
</table>

### Dimensions

- 104 mm (4.1"
- 30mm (1.18"

### Wiring Data

- **Non Inverted Output**
  - Brown + 20-30V DC
  - Blue –
  - White Voltage 0-10V
  - Black Current 4-20mA

- **Current Output Inverted**
  - Brown + 20-30V DC
  - Blue –
  - White
  - Black Current 0-4mA

- **Voltage Output Inverted**
  - Brown + 20-30V DC
  - Blue –
  - White Current 10-0V
  - Black
Operation and Set-Up

Minimum Analog Ranging

Minimum analog ranging is when you desire to have the full 4-20mA or 0-10V output over the minimum 5 inch sensing span. 5 inches of minimum sensing span can be adjusted anywhere in the sensing range. For example 10°-15° or 25°-30°. To make this adjustment, you place your target at the minimum sensing range and adjust P1 to 4mA. Then move your target to the maximum sensing range and adjust P2 to 20mA. Re-check the readings and make appropriate adjustments, if necessary. See diagram (A).

Maximum Analog Ranging

Analog sensing in the maximum range means utilizing the entire 36” span (4”-40”) and 72” span (8”-80”). To adjust, set your target at the minimum range, either 4” or 8” and adjust P1 to 4mA. Move the target to the maximum range and adjust P2 to 20mA. Re-check readings and make appropriate adjustments, if necessary. See diagram (B).

Inverted Analog Outputs

Inverted outputs means that the 4-20mA or 0-10V output signal will decrease proportionally with distance. To adjust, place your target at the minimum sensing distance and adjust P1 to 20mA. Place your target at the maximum sensing distance and adjust P2 to 4mA. Re-check readings and make appropriate adjustments, if necessary. See diagram (C).

LED Operation (Note D)

The LED is green when the unit is powered up. It will fade to red as a target is detected with increased intensity as more signal is being reflected from the target. Note: Any color other than green equals a workable signal level.
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- Foot Switches
- Cable Pull Switches

Safety Technology Products
- Safety Interlocks
- Cable Pull Switches
- Coded Magnetic Monitoring Systems

Approvals and Certification
Each model is individually identified with its own certification. Documentation is available upon request.