TE's AD-101 non-invasive air bubble detector is easy to integrate and provides superior reliability, delivering confidence in overall system performance.

Using ultrasonic technology the AD-101 non-invasive air bubble detector is capable of positively identifying the presence of a break in flow of any type of liquid.

Sensor Type: Air Bubble/Air-in-line Detectors
Type: Non-Invasive

Bubble detection is critical in applications such as infusion pumps, hemodialysis and blood flow monitoring.

TE Connectivity (TE) has developed a new compact AD-101 Air Bubble Detector (ABD) for non-invasive continuous monitoring of fluid for air bubble detection. Using ultrasonic technology the AD-101 sensor is capable of positively identifying the presence of a break in flow of any type of liquid.

AD-101 Air Bubble Detector Sensor

Discover how the AD-101 air bubble detector sensor offers easy integration and provides exceptional reliability, delivering confidence in overall system performance.

Benefits
- Detects bubble size as small as 70% of tubing inner diameter
- Sensor can be customized to fit tube or pipe
- Tubing size from 3 mm to 10 mm
- Non-invasive design eliminates sterility and fluid compatibility concerns
- High noise immunity to EMI/RFI
- Acoustic coupling agent not required
- Integral electronics
- Power-on and continuous self-diagnostic tests to confirm functionality

## Applications

- Infusion Pump
- Apheresis / Auto-transfusion
- Biotech / DNA Analysis
- Blood Processing
- Immunoassay
- Chemical Analysis
- Hemodialysis
- IN-VIVO Detection of Gas

## Whitepaper

**Download Now**

Within traditional and smart pump applications, sensors are key components in controlling and monitoring infusion pumps. They are designed to provide occlusion detection, monitor fluid flow, provide feedback for motor control and, in some instances, sense the temperature of the IV fluid being administered.

## Other Sensors for Medical Pump Applications

## Features

### Product Type Features

<table>
<thead>
<tr>
<th>Sensor Type</th>
<th>Air Bubble/Air-in-line Detectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Non-Invasive</td>
</tr>
</tbody>
</table>
## Configuration Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable</td>
<td>12 Inches</td>
</tr>
</tbody>
</table>

## Electrical Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>6 - 24 VDC</td>
</tr>
<tr>
<td>Output</td>
<td>Open Collector</td>
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</tbody>
</table>

## Usage Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature Range (°C)</td>
<td>0 - 65</td>
</tr>
<tr>
<td>Operating Temperature Range (°F)</td>
<td>32 - 149</td>
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</tbody>
</table>

## Operation/Application

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Range</td>
<td>Atmosphere</td>
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</table>
# Non-Invasive Air Bubble Level Detector

**TE Model #**: AD-101  
**TE Internal #**: CAT-ULT0010

## Products (1 of 1)

<table>
<thead>
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<td>ABD, AD-101, COMPACT ASSY, 6MM</td>
<td>10217758-00</td>
<td>EU RoHS Compliant with Exemptions</td>
<td>EU ELV Compliant with Exemptions</td>
<td>MEAS</td>
<td>MEAS AD-101</td>
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<td>EU ELV Compliant with Exemptions</td>
<td>MEAS</td>
<td>MEAS AD-101</td>
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</tbody>
</table>

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*EU RoHS Directive 2011/65/EU*

These products comply with the substance restrictions of the Restriction on Hazardous Substances Directive 2011/65/EU (RoHS2). The RoHS2 Directive requires that certain electrical and electronic equipment products do not contain mercury, cadmium, hexavalent chromium, PBB, PBDE, lead, DEHP, BBP, DBP and DIBP above defined thresholds. Products indicated as 'Compliant' do not contain any of these substances above the prohibition thresholds. Finished electrical and electronic equipment products will be CE marked as required by the Directive. Components may not be CE marked.

**EU ELV Directive 2000/53/EC**

These products comply with the substance restrictions of the End of Life Vehicles Directive 2000/53/EC (ELV). The ELV Directive requires that materials and components of vehicles do not contain mercury, cadmium, hexavalent chromium, and lead above defined thresholds. Products indicated as ‘Compliant’ do not contain any of these substances above the prohibition thresholds.
Related Materials

Data Sheet
AD-101 Air Bubble Detector
English

Solution Guide
Dialysis Equipment Solutions
English

Also in the Series | MEAS AD-101

Ultrasonic Sensors(2)