



Operating Parameters & Specifications

- ◆ Temperature range: 0°C - 40°C
- ◆ Response time: 0.2ms
- ◆ Input: 5VDC-24VDC
- ◆ Output: 3.3 V TTL Logic

AD-101 Air Bubble Detector

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.

Features

- ◆ 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

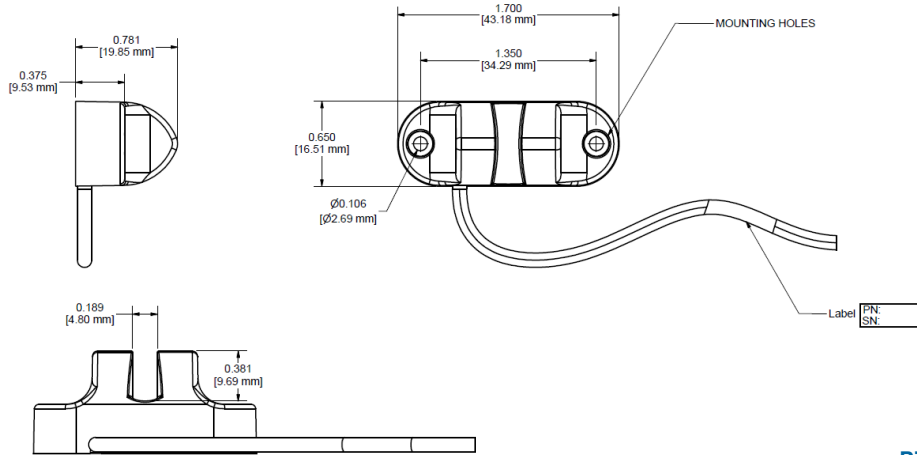
Applications

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

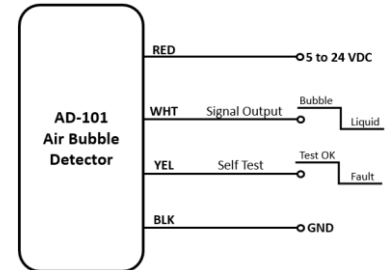
AD-101

Air Bubble Detector

Dimensions



Schematic



Specifications

Input	Red = 5 – 24 VDC Black = GND
Sensor Output	White = Output 3.3V TTL, Low When Liquid Present, High When Bubble Present
Self-Test Output	Yellow = Self-test output, 3.3V TTL, High When Pass, Low When Fault
Response Time	0.22 Milliseconds
Temp. Range	0 to 40°C
Bubble Size	Smallest bubble detected =70% of tubing I.D.
Material	ABS/PC (55/45) Plastic Blend, Injection Molded Parts, UL 94 V-2 Rated
Cable	4 Conductor 28AWG, 350mm Long UL Style Number 2725
Electronics	Integral

Pin Out

Pin	Color	Function
1	Black	GND
2	White	Output
3	Yellow	Self-test
4	Red	5 - 24 VDC

Part Number

Part Number	Description
071-06403	AD-101 compact ABD assembly 4MM
071-06402	AD-101 compact ABD assembly 6MM

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