

Air-In-Line Technology Experts



With over 15 years of experience with Air-In-Line (AIL) technology, Piezo Technologies is truly one of the industry's pioneers. We are the premier designer and manufacturer of ultrasonic AIL detectors for the medical infusion industry, and we also serve the general fluid dispensing market (*including high temperature applications*). Our industry-leading piezoelectric ceramics, combined with our renowned transducer engineering is what makes our AIL solutions the best available. From prototype development to final production runs, everything is done in-house, insuring that we exceed customer expectations in quality, performance, reliability, delivery, and price.

Contact us to learn more about how this technology can enhance the performance of your current AIL equipment, or how it can be used to create your next generation products.



PDS 15486 REV 1106

Advancing Air-In-Line Applications Through Innovative Piezo Materials and World-Class Engineering

Piezo Technologies' Air-In-Line Solutions Offer Many Advantages, Including:

- High sensitivity for detecting smaller bubbles.
- Rapid response time.
- Ability to operate in ambient and high-temp environments.
- Over 15 years of experience in providing reliable AIL solutions.
- Transducer set and/or transmit/receive electronics available for OEM use.
- Standard package and custom design capabilities.
- Enhanced contact technology to hold tubing in place better and improve AIL efficiency.

STANDARD PACKAGE SPECIFICATIONS

Operating Frequency	2.50 Mhz Nominal
Active Dimension	4.5MM
Receiving Sensitivity	>/= -20 dB w/Tube Ref. VD
Signal To Noise	>/= +20 dB Fluid to Air w/ Tube
Bandwidth	10% Typical -3 dB
Impedance	300 Ohms Nominal
Phase	0 +/- 45 Degrees
Beam Alignment	</= 2 Degrees
Max. Input Voltage (Vd)	50 Vpp Max. 10 Vpp Typical
Max. Input Power	1 W
Operating Temperature	-20 TO +50 Degrees C
Storage Temperature	-40 TO + 70 Degrees C
Tube Size	4 MM O.D. Nominal, PVC
Hsg. Matl.:Thermoplastic	BLACK ULTEM, other Materials and Colors available upon request.

Although a few standard designs are available, we pride ourselves on adapting our knowledge of materials and processes to any customer's requirement to provide optimal value. For AIL solutions, we offer transducers for soft and rigid tubing from less than 1/16 inch outside diameter to over 1 inch outside diameter. Transducers incorporating adjustable gaps for applications with more than one tube size are also available. Electronic detection circuits are available, as well as technical advice on circuit design and implementation. All of our finished products can be provided with the specific cabling and adapters you request.

PIEZO TECHNOLOGIES HEADQUARTERS

8431 Georgetown Rd., Suite 300 • Indianapolis, IN 46268 • Tel: 317-876-4670
 Fax: 317-876-4681 • Email: PiezoInfo@PiezoTechnologies.com • www.PiezoTechnologies.com