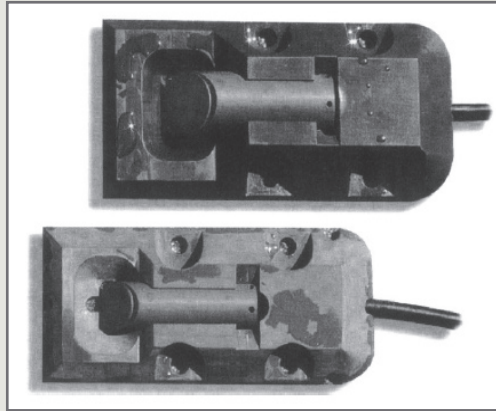


Low Profile Internal-Mount Transducers Models 7657/7658

About Accusonic

Accusonic Technologies, a division of ADS LLC, designs and manufactures ultrasonic transit-time flow measurement systems that are renowned for their precise accuracy and reliability in difficult operating environments. Accusonic flowmeter systems can be found in hydroelectric plants, thermal power plants, water and wastewater treatment facilities, sewage collection systems, and other types of water flow conveyance pipelines and channels. With over 35 years of experience and over 2500 systems installed worldwide, Accusonic offers a full range of services including installation, system integration, turbine performance testing services, and field training.



Accusonic Technologies Models 7657/7658 Low Profile Internal-Mount Transducer Assemblies.

The Accusonic Model 7657 and Model 7658 internal-mount transducers are designed for installation in open channels and buried pipes including sewers, combined sewer overflow structures, and wastewater treatment plants. Made of PVC, the transducers are suitable for long-term and permanent installation in harsh wastewater environments. They are certified by Factory Mutual (FM) and Canadian Standards Association (CSA) for intrinsically safe installation in NEC Class I, Divisions 1 & 2, Groups C & D and by CENELEC (SIRA) to ATEX requirements for Zones 0 & 1 hazardous locations, when used with approved Accusonic flowmeter configurations with energy barriers.

The Model 7657 1-MHz frequency transducer is used for measurement in wastewater pipes or channels up to 3 feet (1 meter) in diameter or width; the Model 7658 500-kHz frequency version is used in larger pipes and channels. In buried pipes or channels, Model 7657 and 7658 transducers can be mounted directly to the pipe/channel walls in special mounting assemblies or pre-mounted for installation via pipe sleeve inserts. The pipe sleeve with the complete transducer array is then inserted in the open end of the pipe via manhole or other access, thereby minimizing installation time.

When installed without the safety barriers required to meet intrinsic safety requirements, Model 7657 (1-MHz) and 7658 (500-kHz) transducers serve as a low-profile transducer option for internal mounting in clean water and nonhazardous locations.

Installation of a prefabricated sleeve in a 27-inch sewer. This sleeve has three acoustic paths and a level sensor.



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DESIGN SPECIFICATIONS

Applications:

Water and wastewater in pipelines and open channels and in hazardous atmosphere locations with appropriate electrical barriers. Maximum path length depends on sediment concentration and aeration. Contact Accusonic regarding application suitability.

Operational Frequency:

Model 7657 1 MHz
Model 7658 500 kHz

Maximum Operating Pressure:

250 psi (17 bar)

Temperature Range:

32° to 122° F (0° to 50° C) Operating
14° to 122° F (-10° to 50° C) Storage

Construction Material:

PVC

Hazardous Location Rating:

Certified by Factory Mutual (FM) and Canadian Standards Association (CSA) for intrinsically safe installation in NEC Class I, Divisions 1 & 2, Groups C & D and by CENELEC (SIRA) to ATEX requirements for Zones 0 & 1 hazardous locations, when used with approved Accusonic flowmeter configurations with energy barriers.

NOTE: Not approved where the vapors of ketones or esters are present.

Dimensions:

7657 Transducer	1 in. Diameter (25 mm) 3.27 in. Length (83 mm)
7697 Mounting Assembly	7.18 in. L x 3.25 in. W x 0.875 in. H (183 mm L x 83 mm W x 22 mm H)
7658 Transducer	1.375 in. Diameter (35 mm) 3.58 in. Length (91 mm)
7698 Mounting Assembly	7.74 in. L x 3.75 in. W x 1.25 in. H (196 mm L x 95 mm W x 32 mm H)

Electrical Connection:

Two Conductor Underwater-Pluggable Neoprene Connector on Pigtail Internal-Mount

Contact Accusonic Technologies for information on transducers recommended for specialized applications.

