

Model 7657/7658 Low Profile Internal-Mount Transducers

About Accusonic

Accusonic, a brand of ADS LLC, designs and manufactures multi-path transit-time flow measurement systems, which are renowned for their precise accuracy and reliability in difficult operating environments. Accusonic flowmeters can be found in hydroelectric and thermal power plants, water and wastewater treatment facilities, sewage collection systems, and other types of water conveyance pipelines and channels. Since 1967, Accusonic has installed thousands of systems worldwide, and offers a full range of services including installation and startup, system verification, turbine performance testing services, and field training.



Accusonic Model 7657/7658 Low Profile Internal-Mount Transducers

The Model 7657 and 7658 transducers are designed for installation in open channels and buried pipes including sewers, CSO structures, and wastewater treatment plants. Constructed of all PVC, the transducers are well suited for long-term and permanent installation in harsh wastewater environments. They are certified for intrinsically safe installations in NEC Class I, Divisions 1 & 2, Groups C & D

locations, and ATEX requirements for Zones 0 & 1 hazardous locations, when used with approved Accusonic flowmeters.

The Model 7657 1-MHz frequency transducer is used for measurement in 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, the Model 7657 and 7658 transducers can be mounted directly to the pipe or channel walls in special mounting assemblies or pre-mounted for installation via pipe sleeve inserts. The pipe sleeves with the complete transducer array are then inserted into an opening in the pipe via manhole or other access, thereby minimizing installation time.

When installed in non-hazardous locations, the Model 7657 (1-MHz) and 7658 (500-kHz) serve as a low-profile transducer option for internal mounting in clean water pipes and channels.



Internal mount pipe installation with cable conduit

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.

Operating 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 (transducer and mount)

Hazardous Location Rating:

Certified for intrinsically safe installations in NEC Class I, Divisions 1 & 2, Groups C & D locations, and ATEX requirements for Zones 0 & 1 locations, when used with approved Accusonic flowmeter consoles.

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 for information on transducers recommended for specialized applications.

