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Measurement of water flow in open channels

**Part 3.7: Velocity-area methods — Measurement by ultrasonic method
(ISO 6416:2017, IDT)**



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- Australian Bureau of Meteorology
- Australian Hydrographers Association
- Australian Industry Group
- Department of Planning, Industry and Environment, NSW
- Engineers Australia
- Institute of Instrumentation, Control & Automation Australia
- Irrigation Australia
- Joint Accreditation System of Australia & New Zealand
- National Measurement Institute
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Measurement of water flow in open channels

Part 3.7: Velocity-area methods — Measurement by ultrasonic method (ISO 6416:2017, IDT)

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Preface

This Standard was prepared by the Standards Australia Committee CE-024, Measurement of water flow in open channels and closed conduits, to supersede AS 3778.3.7 — 2007, *Measurement of water flow in open channels, Part 3.7: Velocity-area methods - Measurement by ultrasonic (acoustic) method*.

The objective of this document is to specify the requirements for the establishment and operation of an ultrasonic (transit-time) gauging station for the continuous measurement of discharge in a river, an open channel or a closed conduit. It also specifies the basic principles on which the method is based, the operation and performance of associated instrumentation and procedures for commissioning.

It is limited to the “transit time of ultrasonic pulses” technique, and is not applicable to systems that make use of the “Doppler shift” or “correlation” or “level-to-flow” techniques.

This document is not applicable to measurement in rivers with ice.

NOTE This document focuses on open channel flow measurement. IEC 60041 covers the use of the technique for full pipe flow measurement.

This document is identical with, and has been reproduced from, ISO 6416:2017, *Hydrometry — Measurement of discharge by the ultrasonic transit time (time of flight) method*.

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