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ISO 18365:2013

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Measurement of water flow in open channels

Part 2.2: General — Selection, establishment and operation of a gauging station (ISO 18365:2013, IDT)

AS 3778.2.2:2022

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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
Water NSW

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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 3778.2.2:2001, *Measurement of water flow in open channels, Part 2.2: General — Establishment and operation of a gauging station.*

The objective of this document is to give requirements for the establishment and operation of a gauging station for the measurement of stage, or stage and discharge, of a lake, reservoir, river or canal or other artificial open channel. It also describes how a gauging station utilizing one of the measurement methods listed should be operated and maintained.

Requirements are provided for stage only measurement stations, stage-discharge stations and direct-discharge measurement stations in natural channels, as well as for stage-discharge stations with artificial structures. Additionally, some requirements are given for measurements under difficult conditions, such as under ice conditions.

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Contents

Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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The committee responsible for this document is ISO/TC 113, *Hydrometry*, Subcommittee SC 1, Velocity area methods.

ISO 18365 cancels and replaces ISO 1100-1:1996 and ISO/TR 8363:1997, which have been merged and technically revised.

NOTES

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1 Scope

This International Standard gives requirements for the establishment and operation of a gauging station for the measurement of stage, or stage and discharge, of a lake, reservoir, river or canal or other artificial open channel. It also describes how a gauging station utilizing one of the measurement methods listed should be operated and maintained.

Requirements are provided for stage only measurement stations, stage–discharge stations and direct-discharge measurement stations in natural channels, as well as for stage–discharge stations with artificial structures. Additionally, some requirements are given for measurements under difficult conditions, such as under ice conditions.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 772, *Hydrometry — Vocabulary and symbols*

3 Terms, definitions and symbols

For the purposes of this document, the terms, definitions and symbols given in ISO 772 apply.

4 General requirements and considerations

4.1 Requirements

Before commencing work on establishment and operation of a gauging station, the following requirements shall be identified:

a) range of levels required to be measured;

b) range of flows required to be measured;

c) customer's requirements for type of data;

d) customer's requirements for timeliness of data;

e) allowable uncertainty in the results;

f) other potential users of the data;

g) life expectancy of the station;

h) available budget;

i) agreements for access to land and construction permits.