
Hydrometry — Direct depth sounding and suspension equipment

*Hydrométrie — Matériel de sondage et de suspension pour le mesurage
direct de la profondeur*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 3454 was prepared by Technical Committee ISO/TC 113, *Hydrometry*, Subcommittee SC 5, *Instruments, equipment and data management*.

This third edition cancels and replaces the second edition (ISO 3454:1983), which has been technically revised.

Introduction

The choice of suspension and sounding equipment depends on the depth of flow, the velocity of the current and the method of discharge measurement (by wading, from a boat, from a manned cableway or from a bridge).

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Hydrometry — Direct depth sounding and suspension equipment

1 Scope

This International Standard specifies the functional requirements of the equipment, excluding bankside cableway systems, used in the measurement of liquid flow in open channels for

- a) sounding (by direct method), and
- b) suspending the measuring equipment (for example, current-meter or sediment sampler) at the point of measurement.

2 Normative references

The following referenced documents are indispensable for the application of this document. 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 and definitions

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

4 Sounding equipment

4.1 General

To obtain the correct vertical depth of water from surface to bed, either a sounding-rod or a sounding line is used depending on the velocity and depth of flow. The sounding rod can also be a wading rod. For measurements by either sounding rod or wading rod, the rod shall be held in a vertical position. For measurements by sounding line, appropriate weights shall be attached to keep it as close as practicable to vertical. Sounding equipment can also be employed as suspension equipment. Requirements for the deployment of suspension equipment, as described in Clause 5, also apply to sounding equipment.

4.2 Sounding rod, wading rod and sounding line

A sounding rod is a graduated rigid rod with a base plate; it is used for measurement of depths up to 5 m to 6 m in medium velocities (up to 2 m/s). For smaller depths and velocities, a wading rod is used; for greater depths, a sounding line is used.