

BUREAU OF INDIAN STANDARDS

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भारतीय मानक मसौदा
जलमिति - निलंबित तलछट सैम्पलरों की कार्यकारिता
अपेक्षाएँ एवं गुणधर्म
(आई एस 3913 का तीसरा पुनरीक्षण)

Draft Indian Standard

**HYDROMETRY — FUNCTIONAL REQUIREMENTS AND
CHARACTERISTICS OF SUSPENDED-
SEDIMENT SAMPLERS**

(Third Revision of IS 3913)

Hydrometry Sectional Committee WRD 01

Last Date for Comments:
December 13, 2022

NATIONAL FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Hydrometry Sectional Committee had been approved by the Water Resources Division Council.

Suspended-sediment samplers are used to collect a representative sample of the water-sediment mixture of rivers and streams. Ideally, the sampler should be able to collect samples that represent the mean concentration of suspended sediment or define the horizontal and vertical variation of suspended-sediment concentration so that the mean concentration can be determined. Samplers have gradually evolved from those that collect an instantaneous sample at one point in a stream or river to streamlined samplers that collect time and/or depth integrated samples. There are a number of different types of samplers available for collecting suspended sediment, including open containers, vertical and horizontal cylinders, bottle samplers, pumping samplers and single-stage samplers, point-integrating samplers and depth-integrating samplers. Some samplers have also been adapted to enable the collection of clean (uncontaminated) samples of trace metal and organic compounds that are commonly associated with suspended sediment in streams and rivers.

This standard was first published in 1966. The first revision was published in 2005 under the title of ‘Hydrometry — Functional requirements and characteristics of suspended-sediment samplers’ deriving the assistance from ISO/ TS 3716 : 2016. This is the third revision of the IS 3913 to align it with the latest version of ISO 3716 : 2021 ‘Hydrometry — Functional requirements and characteristics of suspended-sediment samplers’. Main changes from the ISO 3716 : 2021 decided by the Sectional Committee are as follows:

- a) The Scope has been clarified to include samplers for collecting water-sediment mixtures of rivers, streams, lakes and reservoirs and exclude equipment for sampling closed conduits and wastewater discharges.
- b) Clauses on sampling techniques have been removed
- c) The types and models of samplers have been expanded.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.