



BSI Standards Publication

Hydrometry — Catching-type liquid precipitation measuring gauges

National foreword

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A list of organizations represented on this committee can be obtained on request to its committee manager.

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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Instrument specifications	1
4.1 General	1
4.2 General gauge specifications	2
4.3 Environment	2
4.3.1 General	2
4.3.2 Temperature	2
4.3.3 Relative humidity	3
5 Recording	3
5.1 Recording format	3
5.2 Recording interval	3
6 Environmental protection and housing	3
7 Installation	4
8 Estimation of measurement uncertainty	4
8.1 General	4
8.2 Factors of measurement uncertainty	4
8.3 Type-A estimation	7
8.4 Type-B estimation	7
8.5 Combined uncertainty	7
Annex A (Informative) Catching-type liquid precipitation measuring gauges	8
Annex B (informative) Uncertainties of catching-type liquid precipitation measuring gauges	15
Bibliography	17

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.

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 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

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

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Rainfall totals and intensity rates are measured at frequencies ranging from seconds to months, and the data are required by the user on timescales ranging from immediate to several weeks. This document covers instrumentation that measures rainfall accumulation and rainfall intensity (RI) by collecting the volume of water that falls on a fixed area. The gauge user should decide on the gauge design, measurement unit, period of rainfall and network purpose.

Unlike many other meteorological instruments, there is no absolute physical standard against which a raingauge (hereafter called catching-type liquid precipitation measuring gauges) can be compared. Many different types, shapes and sizes of catching-type liquid precipitation measuring gauges are acceptable for the measurement of rainfall and rainfall depth, each reflecting a specific requirement. Most consist of a circular collecting device, delineating the fixed area of the sample, and a funnel leading into a storage reservoir or measuring system, or both. Some types of automatic gauges do not require a funnel. Since various sizes and shapes of orifice and gauge heights are used in different countries, the measurements are not strictly comparable.

This document provides general information on the functions of catching-type liquid precipitation gauges. The annexes in this document provide guidance on the types of catching-type liquid precipitation measuring gauges currently available (see [Annex A](#)) and the measurement uncertainty associated with them (see [Annex B](#)). Although advances in measurement electronic technologies and smart instruments have led to the development of optical and hybrid type liquid precipitation measuring gauges, they are not included in this document.

NOTE 1 This document specifies only the general functions of catching-type liquid precipitation measuring gauges. For in-depth and extensive information on precipitation measuring gauges, see References [\[1\]](#) and [\[2\]](#).

NOTE 2 For detailed information on measurement unit and period of rainfall, see Reference [\[1\]](#).

NOTE 3 For detailed information on the design of a reference raingauge pit as well as installation, see Reference [\[3\]](#).

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