



**SLOVENSKI STANDARD**  
**oSIST prEN 18097:2024**  
**01-julij-2024**

---

**Hidrometrija - Merjenje intenzivnosti padavin - Meroslovne zahteve in preskusne metode zanelovne merilnike dežja**

Hydrometry - Measurement of precipitation intensity - Metrological requirements and test methods for non-catching type rain gauges

Hydrometrie - Messung der Niederschlagsintensität - Metrologische Anforderungen und Prüfverfahren für nicht auffangende Niederschlagsmessgeräte

Hydrométrie - Mesurage de l'intensité des précipitations - Exigences métrologiques et méthodes d'essai relatives aux pluviomètres non collecteurs

**Ta slovenski standard je istoveten z: prEN 18097**

oSIST prEN 18097:2024

**ICS:**

07.060

Geologija. Meteorologija.  
Hidrologija

Geology. Meteorology.  
Hydrology

**oSIST prEN 18097:2024**

**en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN 18097**

June 2024

ICS 07.060

English Version

## Hydrometry - Measurement of precipitation intensity - Metrological requirements and test methods for non- catching type rain gauges

Hydrometrie - Messung der Niederschlagsintensität -  
Metrologische Anforderungen und Prüfverfahren für  
nicht auffangende Niederschlagsmessgeräte

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 318.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

**Warning** : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

<b>Contents</b>		Page
<b>European foreword</b> .....		3
<b>Introduction</b> .....		4
<b>1</b>	<b>Scope</b> .....	5
<b>2</b>	<b>Normative references</b> .....	5
<b>3</b>	<b>Terms, definitions and symbols</b> .....	5
<b>3.1</b>	<b>Terms and definitions</b> .....	5
<b>3.2</b>	<b>Symbols</b> .....	5
<b>4</b>	<b>Measurement of rainfall intensity using non-catching rain gauges</b> .....	6
<b>4.1</b>	<b>General</b> .....	6
<b>4.2</b>	<b>Optical</b> .....	6
<b>4.3</b>	<b>Impact</b> .....	7
<b>4.4</b>	<b>Radar</b> .....	7
<b>5</b>	<b>Classification of non-catching rainfall intensity gauges</b> .....	7
<b>5.1</b>	<b>Characteristics of the laboratory device</b> .....	7
<b>5.2</b>	<b>Testing protocol</b> .....	8
<b>Bibliography</b> .....		14

iTeh Standards  
(<https://standards.iteh.ai>)  
Document Preview

[oSIST prEN 18097:2024](https://standards.iteh.ai/catalog/standards/sist/c3ff385d-f484-47f8-ba61-78261f792883/osist-pren-18097-2024)

<https://standards.iteh.ai/catalog/standards/sist/c3ff385d-f484-47f8-ba61-78261f792883/osist-pren-18097-2024>

## **European foreword**

This document (prEN 18097:2024) has been prepared by Technical Committee CEN/TC 318 “Hydrometry”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

**iTeh Standards**  
**(<https://standards.itih.ai>)**  
**Document Preview**

[oSIST prEN 18097:2024](https://standards.itih.ai/catalog/standards/sist/c3ff385d-f484-47f8-ba61-78261f792883/osist-pren-18097-2024)

<https://standards.itih.ai/catalog/standards/sist/c3ff385d-f484-47f8-ba61-78261f792883/osist-pren-18097-2024>

## Introduction

According to CEN/TR 17993:2023 “*Calibration and accuracy of non-catching precipitation measurement instruments*”, although numerous attempts were made and various approaches were tested, no fully traceable calibration procedure exists for most of the non-catching gauges (NCGs) available on the market.

The document was prepared following a request for research development submitted by CEN/TC 318 in October 2017 to EURAMET, the European Association of National Metrology Institutes, through the cooperation programme between STAIR (the joint CEN-CENELEC strategic Working Group supporting standardization in research and innovation) and EMPIR (the European Metrology Programme for Innovation and Research of EURAMET). This led to the approval and funding of the EURAMET pre-normative Research Project “EMPIR 18NRM03 - INCIPIT *Calibration and accuracy of non-catching instruments to measure liquid/solid atmospheric precipitation*” (Merlone et al., 2022 [1]) where a calibration procedure was developed and proposed for consideration as a basis for standardization. The text is derived from the work of Chinchella (2022) [2].

# iTeh Standards (<https://standards.iteh.ai>) Document Preview

[oSIST prEN 18097:2024](https://standards.iteh.ai/catalog/standards/sist/c3ff385d-f484-47f8-ba61-78261f792883/osist-pren-18097-2024)

<https://standards.iteh.ai/catalog/standards/sist/c3ff385d-f484-47f8-ba61-78261f792883/osist-pren-18097-2024>