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STN	**Hydrometria Meranie intenzity zrážok Metrologické požiadavky a skúšobné metódy pre zrážkomery bezzáchytného typu**	**STN EN 18097 75 1316**

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

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

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

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

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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European foreword

This document (EN 18097:2025) has been prepared by Technical Committee CEN/TC 318 “Hydrometry”, the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2026, and conflicting national standards shall be withdrawn at the latest by June 2026.

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Introduction

According to CEN/TR 17993:2023 "*Calibration and accuracy of non-catching precipitation measurement instruments*" [10], although many attempts have been made and various approaches have been 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 to EURAMET, the European Association of National Metrology Institutes in October 2017, through the cooperation programme between STAIR (the joint CEN-CENELEC strategic Working Group supporting standardisation in research and innovation) and EMPIR (the EURAMET's European Metrology Programme for Innovation and Research). 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]), in which a calibration procedure was developed and proposed for consideration as a basis for standardisation.

1 Scope

This document considers liquid atmospheric precipitation (rain) and defines the procedures and equipment to perform laboratory tests, in steady-state conditions, for the calibration, check and metrological confirmation of non-catching rainfall measurement instruments. This document is not applicable to field performance.

It provides a classification of non-catching measurement instruments based on their laboratory performance. The classification does not relate to the physical principle used for the measurement, nor does it refer to the technical characteristics of the instrument assembly but is solely based on the instrument calibration.

Attribution of a given class to an instrument is not intended as a high/low ranking of its quality but rather as a quantitative standardized method to declare the achievable measurement accuracy to provide guidance on the suitability for a particular purpose, while meeting the user's requirements.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 17277:2019, *Hydrometry — Measurement requirements and classification of rainfall intensity measuring instruments*

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