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Stationary source emissions - Data acquisition and handling systems - Part 2: Specification of requirements on data acquisition and handling systems

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Emissionen aus stationären Quellen - Datenerfassungs- und Auswerteeinrichtungen - Teil 2: Festlegung von Anforderungen an Datenerfassungs- und Auswerteeinrichtungen

This European Standard was approved by CEN on 7 March 2020.

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EN 17255-2:2020 (E)**European foreword**

This document (EN 17255-2:2020) has been prepared by Technical Committee CEN/TC 264 “Air Quality”, the secretariat of which is held by DIN.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2020, and conflicting national standards shall be withdrawn at the latest by October 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document is Part 2 of the EN 17255 series.

The EN 17255 series, published under the general title Stationary source emissions — Data acquisition and handling systems, specifies:

- requirements for the handling and reporting of data;
- requirements on data acquisition and handling systems;
- requirements for the performance test of data acquisition and handling systems;
- requirements for the installation and on-going quality assurance and quality control of data acquisition and handling systems.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this document: 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, Turkey and the United Kingdom.

Introduction

This document forms part of a series of standards which, between them, govern the process for the quality assurance of data received by a data acquisition and handling system (DAHS) from automated measuring systems (AMS), being used for monitoring emissions from stationary sources and quality ensured to EN 14181.

The input data can be either in analogue representation or in digital form directly from an AMS or via a digital bus system. Inputs can include the data from the AMS, peripheral data needed for calculation of the reported values and information on plant conditions needed to apply data selection criteria.

The data acquisition and handling system (DAHS) receives the raw data, as they are measured, averaged and presented by the AMS, and converts, averages, stores and reports data as required by legislation.

This series of standards suggests that the process of data handling is best performed in a dedicated DAHS. It does not preclude the use of other options for all or part of the process provided that it can be shown to meet all of the requirements of the standard, particularly in relation to speed, accuracy, access, security and validation.

This series of standards applies to all DAHS installed after the date of implementation of this document.

EN 17255-2 specifies the implementation of the calculations laid down in EN 17255-1 and the specific requirements on functionality of the DAHS.

EN 17255-2:2020 (E)**1 Scope**

This document specifies the performance requirements on data acquisition and handling systems (DAHS) regarding implementation of the procedures defined in EN 17255-1 including

- data acquisition;
- data processing;
- data storage;
- data output;
- generation of reports;
- system functions;
- data integrity;
- documentation.

This document supports the requirements of EN 14181 and legislation such as the IED and E-PRTR. It does not preclude the use of additional features and functions provided the minimum requirements of this document are met and that these features do not adversely affect data quality, clarity or access.

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 14181:2014, *Stationary source emissions - Quality assurance of automated measuring systems*

EN 17255-1, *Stationary source emissions - Data acquisition and handling systems - Part 1: Specification of requirements for the handling and reporting of data*

IEEE 754, *Floating-point arithmetic*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 17255-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1**warning signal**

binary value or enumerated value signifying the need for action

Note 1 to entry: Warnings can be derived from measurement values or conditions, which are still within the specified limits, but where the value is close to the specified limit. Warnings are for the benefit of the plant operator.