



**NSAI**  
Standards

Irish Standard  
I.S. EN 17255-3:2021

# Stationary source emissions - Data acquisition and handling systems - Part 3: Specification of requirements for the performance test of data acquisition and handling systems

**I.S. EN 17255-3:2021**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

*This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):*

*NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.*

*This document is based on:*

EN 17255-3:2021

*Published:*

2021-10-20

*This document was published  
under the authority of the NSAI  
and comes into effect on:*

2021-11-07

ICS number:

13.040.40

NOTE: If blank see CEN/CENELEC cover page

NSAI  
1 Swift Square,  
Northwood, Santry  
Dublin 9

T +353 1 807 3800  
F +353 1 807 3838  
E standards@nsai.ie  
W NSAI.ie

Sales:  
T +353 1 857 6730  
F +353 1 857 6729  
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

## National Foreword

I.S. EN 17255-3:2021 is the adopted Irish version of the European Document EN 17255-3:2021, Stationary source emissions - Data acquisition and handling systems - Part 3: Specification of requirements for the performance test of data acquisition and handling systems

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

**Compliance with this document does not of itself confer immunity from legal obligations.**

*In line with international standards practice the decimal point is shown as a comma (,) throughout this document.*

This page is intentionally left blank

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN 17255-3

October 2021

ICS 13.040.40

English Version

Stationary source emissions - Data acquisition and  
handling systems - Part 3: Specification of requirements  
for the performance test of data acquisition and handling  
systems

Émissions de sources fixes - Systèmes d'acquisition et  
de traitement de données - Partie 3 : Spécification des  
exigences relatives aux essais de performance des  
systèmes d'acquisition et de traitement de données

Emissionen aus stationären Quellen - Datenerfassungs-  
und Auswerteeinrichtungen - Teil 3: Festlegung von  
Anforderungen an die Eignungsprüfung von  
Datenerfassungs- und Auswerteeinrichtungen

This European Standard was approved by CEN on 27 September 2021.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists 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, Turkey and United Kingdom.



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

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

**EN 17255-3:2021 (E)**

Contents	Page
<b>European foreword</b> .....	<b>3</b>
<b>Introduction</b> .....	<b>4</b>
<b>1 Scope</b> .....	<b>5</b>
<b>2 Normative references</b> .....	<b>5</b>
<b>3 Terms and definitions</b> .....	<b>5</b>
<b>4 Symbols and abbreviations</b> .....	<b>6</b>
<b>5 Performance testing process</b> .....	<b>6</b>
<b>6 Test procedures</b> .....	<b>7</b>
6.1 General .....	7
6.2 Data acquisition .....	8
6.2.1 Input data .....	8
6.2.2 Interfaces .....	8
6.2.3 Manual data input .....	9
6.2.4 Remote data logger unit .....	9
6.3 Input data processing .....	9
6.3.1 Validity of input data .....	9
6.3.2 First level data (FLD) .....	10
6.3.3 Implementation of QAL3 .....	10
6.4 Reported data .....	10
6.4.1 General .....	10
6.4.2 Warnings, alarms and violations .....	11
6.5 Reports .....	12
6.5.1 General .....	12
6.5.2 Emission reports .....	12
6.5.3 System reports .....	12
6.6 Data storage .....	12
6.6.1 General .....	12
6.6.2 Time stamping .....	12
6.6.3 Storage of FLD .....	12
6.6.4 Storage of STA .....	12
6.6.5 Storage of standardized STA (SSTA) .....	12
6.6.6 Storage of validated STA (VSTA) .....	13
6.6.7 Storage of QAL3 data .....	13
6.6.8 Storage of warnings, alarms and violations .....	13
6.6.9 Storage of the event-log and configuration parameters .....	13
6.7 System functions .....	13
6.7.1 Event log .....	13
6.7.2 Configuration .....	13
6.7.3 Export of data .....	13
6.7.4 Test mode .....	13
6.8 Data integrity .....	14
6.8.1 DAHS availability .....	14
6.8.2 Tamper-proof data transfer and handling .....	14
6.8.3 Preventing loss of data .....	14
6.8.4 Data back-up .....	14
6.8.5 DAHS identification .....	14
6.8.6 Time management .....	14
6.9 Documentation .....	14
<b>Bibliography</b> .....	<b>15</b>

## **European foreword**

This document (EN 17255-3:2021) has been prepared by Technical Committee CEN/TC 264 “Air quality”, the secretariat of which is held by DIN.

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 April 2022, and conflicting national standards shall be withdrawn at the latest by April 2022.

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 3 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.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: 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.

**EN 17255-3:2021 (E)****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 reported data 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 that they meet all of the requirements of the standard, particularly in relation to speed, accuracy, access, security and validation.

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

EN 17255-3 specifies the performance test of DAHS.

**NOTE 1** The certification of DAHS will be covered by the revised version of EN 15267-1 [5], which is currently in preparation.

**NOTE 2** The manufacturing quality control of DAHS will be covered by the revised version of EN 15267-2 [6], which is currently in preparation.



## 1 Scope

This document specifies the performance test of data acquisition and handling systems (DAHS). This includes:

- specification of test procedures;
- description of laboratory tests;
- requirements on the testing laboratory.

This document supports the requirements of EN 14181 and legislation such as the IED, MCPD 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 17255-1:2019, *Stationary source emissions - Data acquisition and handling systems - Part 1: Specification of requirements for the handling and reporting of data*

EN 17255-2:2020, *Stationary source emissions - Data acquisition and handling systems - Part 2: Specification of requirements on data acquisition and handling systems*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 17255-1 and EN 17255-2 and the following apply.

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

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

### 3.1

#### **testing laboratory**

laboratory carrying out the performance test

### 3.2

#### **documentation test**

##### **DT**

verification of the correct DAHS documentation for a characteristic in accordance with the specified performance criterion

### 3.3

#### **generic test**

##### **GT**

demonstration of the capability of the DAHS to handle a characteristic in line with the specified performance criterion without use of specific test equipment and test procedures

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- Looking for additional Standards? Visit Intertek Inform Infostore
  - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-