



Irish Standard
I.S. EN 50379-2:2012

Specification for portable electrical
apparatus designed to measure
combustion flue gas parameters of
heating appliances -- Part 2:
Performance requirements for
apparatus used in statutory inspections
and assessment

I.S. EN 50379-2:2012

Incorporating amendments/corrigenda 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.

<i>This document replaces:</i> EN 50379-2:2004	<i>This document is based on:</i> EN 50379-2:2012 EN 50379-2:2004	<i>Published:</i> 6 April, 2012 13 August, 2004
This document was published under the authority of the NSAI and comes into effect on: 19 April, 2012		ICS number: 13.320
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		

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 50379-2

April 2012

ICS 13.320

Supersedes EN 50379-2:2004

English version

**Specification for portable electrical apparatus designed to measure
combustion flue gas parameters of heating appliances -
Part 2: Performance requirements for apparatus used in statutory
inspections and assessment**

Spécification pour les appareils
électriques portatifs conçus pour mesurer
les paramètres des gaz de combustion
dans les conduits d'évacuation des
appareils de chauffage -
Partie 2: Prescriptions des
caractéristiques des appareils utilisés au
cours des inspections et évaluations
réglementaires

Anforderungen an tragbare elektrische
Geräte zur Messung von
Verbrennungsparametern von
Heizungsanlagen -
Teil 2: Anforderungen an das
Betriebsverhalten von Geräten für den
Einsatz bei gesetzlich geregelten
Messungen und Beurteilungen

This European Standard was approved by CENELEC on 2012-03-19. CENELEC 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 CENELEC 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 CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Contents

Foreword	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 General requirements	5
5 Test methods and performance requirements	6
5.1 General requirements for tests	6
5.2 Normal conditions for tests	6
5.3 Mechanical tests	6
5.4 Electrical and software tests	7
5.5 Tests with test gases	7
5.6 Tests with real flue gases	8
5.7 Calculated values	9
5.8 Temperature	9
5.9 Pressure	10
Bibliography	11

Foreword

This document (EN 50379-2:2012) has been prepared by CENELEC TC 216 "Gas detectors".

The following dates are fixed:

- latest date by which this document has (dop) 2013-03-19
to be implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2015-03-19
standards conflicting with this
document have to be withdrawn

This document supersedes EN 50379-2:2004.

EN 50379-2:2012 includes the following significant technical changes with respect to EN 50379-2:2004:

- 5.5.7 considers calibration curves for sensors with nonlinear signal;
- 5.5.8 considers influence of pressure variations;
- 5.5.9 considers the influence of water vapour on the gas signal;
- 5.7.2 for calculated values was amended;
- 5.7.4 considers 15 min. average concentration for solid fuels;
- 5.9.1 was amended to cover measurement at the circular orifice.

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

Introduction

This European Standard covers apparatus for measuring gas concentrations and other combustion parameters, as used in the installation and maintenance of heating appliances. It forms a specification for portable electrical apparatus designed to measure combustion flue gas parameters of heating appliances, and includes the following parts under the generic title *Specification for portable electrical apparatus designed to measure combustion flue gas parameters of heating appliances*:

Part 1: General requirements and test methods;

Part 2: Performance requirements for apparatus used in statutory inspections and assessments;

Part 3: Performance requirements for apparatus used in non-statutory servicing of gas fired heating appliances.

EN 50379-1 specifies general requirements for the construction, testing and performance of portable spot reading apparatus designed to give an assessment of specific combustion flue gas parameters such as concentration of gaseous compounds, temperature and/or pressure to check the combustion performance of heating appliances for domestic residential and commercial applications using commercially available fuels.

EN 50379-2 is for apparatus intended to be used for statutory measurement. In several European countries, legal requirements exist for the performance of heating appliances. Authorised inspectors use these apparatus to measure the flue gas parameters, in order to test compliance with national regulations. Due to the legal consequences resulting from the measurement there are strict requirements regarding the measuring uncertainty of these apparatus. Therefore EN 50379-2 includes maximum values for measuring uncertainty of the apparatus. Tests with real flue gases form a key part of the verification of the performance of the apparatus for statutory measurement. The measuring uncertainty has to be justified by internationally accepted methods over the whole measuring range.

EN 50379-3 is for apparatus intended to be used for non-statutory applications. There are reduced performance requirements, because the apparatus are designed to decide if maintenance for a gas fired appliance is required, and for adjusting the appliance during maintenance. There will be no determination of the measuring uncertainty for the apparatus.

1 Scope

This European Standard covers apparatus designed to measure flue gas parameters of heating appliances for domestic residential and commercial applications using commercially available fuels in compliance with metrological specification.

The apparatus may consist of different functional modules that may be tested separately for complying with this standard and will be combined in different ways according to the different applications. Part 1 of EN 50379 specifies the general requirements and is supplemented by the requirements in EN 50379-2 and/or EN 50379-3.

This European Standard specifies the performance requirements of portable spot reading apparatus designed to give a measurement of specific combustion flue gas parameters such as concentration of gaseous compounds, temperature and/or pressure to be used for testing the compliance with national regulations for the above mentioned appliances.

This European Standard excludes apparatus for

- continuous emission, safety monitoring and control, and
- use in vessels with an international load line.

NOTE 1 When this apparatus is used in industrial premises, national regulations should be observed.

NOTE 2 Apparatus may contain functional modules that are not covered by this standard e.g. measurement of smoke spot number (see EN 267:2009+A1:2011, Annex A) and/or measurement of indoor ambient air (see EN 50543).

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 50270:2006, *Electromagnetic compatibility – Electrical apparatus for the detection and measurement of combustible gases, toxic gases or oxygen*

EN 50271:2010, *Electrical apparatus for the detection and measurement of combustible gases, toxic gases or oxygen – Requirements and tests for apparatus using software and/or digital technologies*

EN 50379-1:2012, *Specification for portable electrical apparatus designed to measure combustion flue gas parameters of heating appliances – Part 1: General requirements and test methods*

EN 60335-1:2002, *Household and similar electrical appliances – Safety – Part 1: General requirements (IEC 60335-1:2001, mod.)*

EN 60529:1991, *Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 50379-1:2012 apply.

4 General requirements

Unless otherwise stated, the general requirements of EN 50379-1:2012 are applicable and shall be checked by visual inspection.

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
-