



NSAI
Standards

Irish Standard
I.S. EN 61770:2009

Electric appliances connected to the water mains - Avoidance of backsiphonage and failure of hose-sets (IEC 61770:2008 (EQV))

I.S. EN 61770:2009

Incorporating amendments/corrigenda issued since publication:

EN 61770:2009/AC:2011

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 61770:1999	<i>This document is based on:</i> EN 61770:2009 EN 61770:1999	<i>Published:</i> 7 May, 2009 22 December, 1999
This document was published under the authority of the NSAI and comes into effect on: 12 August, 2009		ICS number: 91.140.60 97.030
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Corrigendum to EN 61770:2009

English version

Annex ZB to be inserted after Annex ZA

Annex ZB (informative)

A-deviations

A-deviation: National deviation due to regulations, the alteration of which is for the time being outside the competence of the CEN/CENELEC member.

This European Standard falls under Directive 2006/95/EC.

A-deviations in an EFTA-country are **valid instead** of the relevant provisions of the European Standard in that country until they have been removed.

Clause

Deviation

1 **United Kingdom** (The England and Wales Water Supply (Water Fittings) Regulations 1999 and equivalent Water Byelaws in Scotland and Northern Ireland)

The following additional requirement applies:

Constructional materials of the appliance shall not adversely affect the quality of the water with which they may come into contact upstream of the backflow prevention device.

Compliance is checked by the tests specified in BS 6920.

4.1 **United Kingdom** (The England and Wales Water Supply (Water Fittings) Regulations 1999 and equivalent Water Byelaws in Scotland and Northern Ireland)

The following additional requirement applies:

The backflow prevention device shall be in accordance with the Secretary of State Specification for the Requirements for the Prevention of Backflow.

English version

**Electric appliances connected to the water mains -
Avoidance of backsiphonage and failure of hose-sets
(IEC 61770:2008)**

Appareils électriques raccordés
au réseau d'alimentation en eau -
Exigences pour éviter le retour d'eau
par siphonnage et la défaillance
des ensembles de raccordement
(CEI 61770:2008)

Elektrische Geräte zum Anschluss
an die Wasserversorgungsanlage -
Vermeidung von Rücksaugung
und des Versagens von Schlauchsätzen
(IEC 61770:2008)

This European Standard was approved by CENELEC on 2009-04-22. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, 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 and the United Kingdom.

CENELEC

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

Central Secretariat: avenue Marnix 17, B - 1000 Brussels

I.S. EN 61770:2009

EN 61770:2009

– 2 –

Foreword

The text of document 61/3647/FDIS, future edition 2 of IEC 61770, prepared by IEC TC 61, Safety of household and similar electrical appliances, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61770 on 2009-04-22.

This European Standard supersedes EN 61770:1999 + A1:2004 + A2:2006 + corrigendum August 2007.

The principal changes in EN 61770:2009 as compared with EN 61770:1999 are as follows (minor changes are not listed):

- normative references are updated;
- some notes have been converted to normative text (3.10, 5.2, 6.3, 7.2 and Annex A);
- the type of petroleum spirit has been specified (9.3).

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2010-05-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2012-05-01

NOTE The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61770:2008 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60730-2-8 (mod)	- ¹⁾	Automatic electrical controls for household and similar use - Part 2-8: Particular requirements for electrically operated water valves, including mechanical requirements	EN 60730-2-8	2002 ²⁾

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references	5
3 Terms and definitions	5
4 General requirements	6
5 General conditions for the tests	7
6 Airgaps.....	8
7 Pipe interrupters.....	8
8 Dynamic backflow preventers	9
9 Hose-sets	10
Annex A (normative) Backsiphonage test.....	21
Figure 1 – Arrangement for the determination of "h" for pipe interrupters	14
Figure 2 – Arrangement for the determination of maximum and critical water levels for pipe interrupters	15
Figure 3 – Kinking test	16
Figure 4 – Arrangement for verifying the resistance of hose-sets to pulses	16
Figure 5 – Mandrel for testing coupling nuts	17
Figure 6 – Mandrel for ozone test on hose-sets	17
Figure 7 – Arrangement for the flexing test	18
Figure 8 – Arrangement for the bending test	19
Figure 9 – Detail for applying the bending moment to coupling tubes	19
Figure 10 – Detail for the impact test on coupling tubes	20
Table 1 – Tests applicable to different types of hoses	10

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRIC APPLIANCES CONNECTED TO THE WATER MAINS – AVOIDANCE OF BACKSIPHONAGE AND FAILURE OF HOSE-SETS

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61770 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

This second edition cancels and replaces the first edition published in 1998 including its Amendment 1 (2004) and Amendment 2 (2006). It constitutes a technical revision.

The principal changes in this edition as compared with the first edition are as follows (minor changes are not listed):

- normative references are updated;
- some notes have been converted to normative text (3.10, 5.2, 6.3, 7.2 and Annex A);
- the type of petroleum spirit has been specified (9.3).

The text of this standard is based on the following documents:

FDIS	Report on voting
61/3647/FDIS	61/3687/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

NOTE 1 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

NOTE 2 The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this standard be adopted for implementation nationally not earlier than 12 months nor later than 36 months from the date of its publication.

ELECTRIC APPLIANCES CONNECTED TO THE WATER MAINS – AVOIDANCE OF BACKSIPHONAGE AND FAILURE OF HOSE-SETS

1 Scope

This International Standard specifies requirements for appliances for household and similar purposes to prevent the backsiphonage of **non-potable water** into the water mains. It also specifies requirements for **hose-sets** used for connecting such appliances to the water mains that supply water at a pressure not exceeding 1 MPa.

NOTE 1 Examples of similar purposes are the installation of appliances in canteens, restaurants, laundrettes and communal flats.

NOTE 2 This standard does not apply to

- appliances used for dry cleaning;
- appliances for medical purposes;
- appliances intended for industrial purposes;
- water heaters that are an integral part of the water supply system;
- water coolers that are an integral part of the water supply system.

NOTE 3 The connection of the appliance to the water mains may be temporary or permanent.

NOTE 4 When reference is made to the water mains, water supplied from a cistern or similar system is also included.

NOTE 5 Many countries have requirements concerning the prevention of contamination of potable water as a result of contact with unsuitable materials upstream of a **backflow prevention device**.

2 Normative references

The following referenced documents are indispensable for the application 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.

IEC 60730-2-8, *Automatic electrical controls for household and similar use – Part 2: Particular requirements for electrically operated water valves, including mechanical requirements*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

potable water

water which is obtained directly from the potable water mains and remains in a closed system up to the **backflow prevention device**

3.2

non-potable water

water which leaves the closed system after having passed the **backflow prevention device**

3.3

backflow prevention device

means to prevent contamination of **potable water** by backflow of **non-potable water**

NOTE Examples are **airgaps**, **dynamic backflow preventers** and **pipe interrupters**.

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