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# PREDSTANDARD

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Domestic cooking appliances burning gas - Part 1-4: Safety - Appliances having one or more burners with an automatic burner control system – Amendment A1

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# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

# DRAFT EN 30-1-4:2002

## prA1

March 2005

ICS

English version

# Domestic cooking appliances burning gas - Part 1-4: Safety -Appliances having one or more burners with an automatic burner control system

Appareils de cuisson domestiques utilisant les combustibles gazeux - Partie 1-4 : Sécurité - Appareils comportant un ou plusieurs brûleurs avec système automatique de commande pour brûleurs Haushalt-Kochgeräte für gasförmige Brennstoffe - Teil 1-4: Sicherheit - Geräte mit einem oder mehreren Brenner(n) mit Feuerungsautomat

This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 49.

This draft amendment A1, if approved, will modify the European Standard EN 30-1-4:2002. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

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## Foreword

This document (EN 30-1-4:2002/prA1:2005) has been prepared by Technical Committee CEN/TC 49 "Gas cooking appliances", the secretariat of which is held by UNI.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

### 1 Scope

Replace the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> paragraphs with the following.

This standard specifies the construction and performance characteristics as well as the requirements and methods of test for the safety and marking of domestic cooking appliances, capable of using the combustible gases defined in EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004, that have one or more burners with an automatic burner control system, referred to in the text as "appliances".

This standard includes specific requirements and methods of test that are applicable to burners having an automatic burner control system, whether or not the appliance is equipped with a fan for the supply of combustion air to, and/or the evacuation of the products of combustion from, the burner concerned. These specific requirements and methods of test are only applicable when the burner has a automatic burner control system and do not apply to burners having automatic ignition that fall within the scope of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004.

This Standard is intended to be used in conjunction with EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 and, where appropriate, other parts of EN 30-1 covering appliances having:

- forced-convection ovens and/or grills;
- a glass ceramic hotplate.

In the 6<sup>th</sup> paragraph, delete the 4<sup>th</sup> indent and replace it with the following:

- appliances having automatic burner control systems that a) have a second safety time (see EN 298: 2003), or b) control one or more burners that incorporate a separate ignition burner;
- In the 6<sup>th</sup> Paragraph add the following indents:
  - appliances having one or more burners that are capable of remote operation (type1), unless the burner(s) concerned are:
    - oven burners equipped with an automatic burner control system, or
    - the oven burners of time-controlled ovens that are designed for a delayed start without the user being present.
  - -appliances having one or more burners that are capable of remote operation (type 2), unless the burner(s) concerned are:
    - oven, grill or hotplate burners equipped with automatic burner control systems, or
    - the oven burners of a time-controlled ovens that are designed for a delayed start without the user being present.

#### 2 Normative references

Replace the second paragraph with the following:

The normative references in clause 2 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 apply with the following additions:

Replace the reference to prEN 30-1-3 with the following:

EN 30-1-3: 2003, Domestic cooking appliances burning gas - Part 1-3: Safety – Appliances having a glass ceramic hotplate

Delete the date 1993 of EN 298 with the date 2003.

Add:

EN 30-1-1: 1998/A2: 2003, Domestic cooking appliances burning gas - Part 1-1: Safety – General.

EN 30-1-1: 1998/A3: 2004, Domestic cooking appliances burning gas - Part 1-1: Safety - General.

## 3 Terms and definitions

*Replace the 1<sup>st</sup> paragraph with the following:* 

Unless specifically modified as described in 3.1 hereafter the definitions of clause 3 of EN 30-1-1:1998, its\_A1: 1999, its A2: 2003 and its A3: 2004 apply, as well as the additional definitions given in 3.2 of this standard.

Delete 3.1.1 and re-number 3.1.2 as 3.1.1.

Add the following:

#### 3.1.2 Remote operation (type 1)

operation by means of a control intended to be actuated out of sight of the appliance, such as by telecommunications or bus systems.

#### 3.1.3 Remote operation (type 2)

operation by means of a separate hand-held control (e.g. an infrared device) designed for use only when the appliance is directly visible to an operator of the control who is present within the same room as the appliance.

### 4 Classification

*Replace the* 1<sup>*st*</sup> *paragraph with the following:* 

The classification given in clause 4 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 applies with the following modifications.

#### 4.2.2.3 Appliances designed for use with gases of the third family

Replace the 1st paragraph with the following:

The text of 4.2.2.3 "Appliances designed for use with gases of the third family" of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 is replaced with the following:

## 5 Constructional requirements

#### 5.1 General

#### Replace the 1<sup>st</sup> paragraph with the following:

Unless specifically modified as described hereafter, the appliance shall comply with the requirements of 5.1 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 which are applicable to them, any verifications in the form of tests being carried out in accordance with clause 7 of this standard, and not in accordance with the corresponding clause of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004.

Replace the 2<sup>nd</sup> sentence of the note with the following:

Additional constructional requirements are given in EN 30-1-2:1999 and EN 30-1-3: 2003 respectively.

#### 5.1.1 Conversion to different gases

Replace the 1<sup>st</sup> paragraph with the following:

5.1.1 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 applies with the following modification:

#### 5.2 Special requirements

#### 5.2.1 General

Replace the 1<sup>st</sup> paragraph with the following:

Unless specifically modified as described hereafter, the appliance shall comply with the requirements of 5.2 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 which are applicable to them, any verifications in the form of tests being carried out in accordance with clause 7 of this standard, and not in accordance with the corresponding clause of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004.

Replace the 2<sup>nd</sup> sentence of the note with the following:

Additional constructional requirements are given in EN 30-1-2:1999 and EN 30-1-3: 2003 respectively.

#### 5.2.2 Taps

Replace the 1<sup>st</sup> sentence of the 1<sup>st</sup> paragraph with the following:

5.2.1 of EN 30-1-1:1988, its A1: 1999, its A2: 2003 and its A3: 2004 is applicable to all direct-acting manually operated burner controls.

#### 5.2.3 Control handles

Replace the 1<sup>st</sup> sentence of the 1<sup>st</sup> paragraph with the following:

5.2.2 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 is applicable to control handles for all direct-acting manually operated burner controls.

#### 5.2.4 Injectors and adjusters

Replace the 1<sup>st</sup> line with the following:

5.2.3 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 is applicable with the following modification.

#### 5.2.5 Oven thermostats

Replace the 1<sup>st</sup> sentence of the 1<sup>st</sup> paragraph with the following:

5.2.4 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 is applicable where the oven burner is not equipped with an automatic burner control system.

#### 5.2.6 Ignition systems

Replace the 1<sup>st</sup> line with the following:

5.2.5 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 is replaced with the following.

#### 5.2.7 Flame supervision devices

Replace the 1<sup>st</sup> sentence of the 1<sup>st</sup> paragraph with the following:

5.2.6 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 is only applicable to burners not equipped with an automatic burner control system.

#### 5.2.8 Governors

Replace the 1<sup>st</sup> line with the following:

5.2.7 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 is replaced with the following.

#### 5.2.9 Hotplates

Replace the 1<sup>st</sup> paragraph with the following:

5.2.8 of EN 30-1-1:1998 its A1: 1999, its A2: 2003 and its A3: 2004 is applicable, with the following modification, to all hotplates except glass ceramic hotplates<sup>1</sup>).

Replace the  $2^{nd}$  paragraph with the following:

5.2.8.2.2 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 is replaced by the following:

# 5.3 Additional requirements for appliances having one or more burners with an automatic control system

#### 5.3.2.1.2 Marking

Replace the 1<sup>st</sup> paragraph with the following:

The requirements of 5.2.2.2 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 are applicable.

<sup>&</sup>lt;sup>1)</sup> Additional requirements for glass ceramic hotplates are given in EN 30-1-3: 2003.

#### 5.4 Additional requirements for burners having automatic burner control systems

#### 5.4.1 General

Replace the 1<sup>st</sup> paragraph with the following:

Automatic single burner and multi-burner control systems shall comply with the following requirements of EN 298: 2003, even if the automatic burner control system is designed for use with a heat sensitive flame supervision device:

- clauses 4, 5 and 6;
- all sub-clauses of clause 7 except 7.2.5, 7.3.4 and 7.3.5;
- clauses 8, 9, 10, and 11.

Add the following new clause:

# 5.5 Additional requirements for appliances having one or more burners that are capable of remote operation

#### 5.5.1 Application

The appliance shall not incorporate an oven that is capable of remote control unless:

- a) it is a time-controlled oven designed for delayed ignition, or
- b) the oven burner is equipped with an automatic burner control system.

if an oven is capable of remote operation, the appliance shall comply the requirements given in 5.5.2 and, depending on whether the remote operation is type 1 or type 2 (see 3.1.2 and 3.1.3), the requirements given in 5.5.3 or 5.5.4.

The appliance shall not incorporate hotplate or grill burners that are capable of remote operation unless this means of remote operation is type 2 (see 3.1.3) and the burners are equipped with automatic burner control systems.

If hotplate or grill burners are capable of remote operation, the appliance shall comply with the requirements given in 5.5.2 and 5.5.3.

#### 5.5.2 General

The appliance shall be so designed and arranged that remote operation of the burner or burners may only be achieved after the user has set the appliance for remote operation. When the burner or burners are set for remote operation this condition shall be indicated visually.

Each burner that is capable of remote operation shall be provided with a direct acting or an indirect manually operated control that enables the burner to be used safely in accordance with manufacturers instructions when remote operation is not in use. The appliance shall be so designed and arranged that it is always possible for the user to utilise these manual operated controls to override remote operation of the burner or burners.

Direct-acting manually operated controls shall comply with 5.2.2 and 5.2.3. Indirect manually operated controls shall comply with 5.3.1 and 5.3.2.

When the appliance, and any hand-held control supplied for type 2 remote operation, are tested in accordance with all the tests described in 19.101 of EN 50165: 1997 and its A1: 1999, it shall be verified that:

- the burner or burners are not put into operation when in the stand-by mode and that any gas valves supplying these burners remain closed;
- the burner or burners are not put into operation when the burner control system is in non-volatile lock-out and that any gas valves supplying these burners remain closed;
- the burner or burners, when in remote operation, continue to operate safely or the burner(s) are shut off by the burner control system.

#### 5.5.3 Remote operation (type 2)

The appliance shall be supplied with the separate hand-operated control for remote operation of the burner or burners.

The separate hand–operated control shall be designed and/or programmed by the manufacturer so as to minimise the risk of its signals operating another appliance.

The appliance signal receiver shall be designed and/or programmed by the manufacturer so as to minimise the risk of the appliance being operated by the hand-held controls for other appliances.

The separate hand-held control shall be so designed that operation of the appliance by means of this control is only possible when the appliance is **directly visible to an operator of the control who is present in the same room as the appliance**.

The separate hand-held control shall be so designed that:

- at least two distinct manual actions are required to start the operation of any burner (e.g. activation of two different buttons) and
- the burner or burners can be shut off quickly by means of a single action if necessary.

#### 5.5.4 Remote operation (type 1)

The appliance signal receiver/control system shall be provided with a unique recognition code or address and, possibly, a password that has to be signalled to the appliance by the user in order to initiate remote operation.

Where a password is utilised this may be changed by the user but only after the existing password has been entered and recognised by the appliance control system.

The appliance signal receiver /control system shall be so designed that the duration of any remote operation cycle is required to be set before the burner or burners can be operated, unless the burner or burners shut off automatically at the end of a cycle or continuous operation of the burner or burners is not hazardous.

The appliance signal receiver/control system shall be designed so as to enable the user, when signalling the appliance remotely:

- To shut off any burner which can be operated remotely, and
- To cancel any remote operating programme.

## 6 Performance requirements

#### 6.1 General

#### Replace the 1<sup>st</sup> paragraph with the following:

Unless specifically modified as described hereafter, the appliance shall comply with the requirements of 6.1 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 which are applicable to them, any verifications in the form of tests being carried out in accordance with clause 7 of this standard, and not in accordance with the corresponding clause of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004.

Replace the  $2^{nd}$  sentence of the note with the following:

Additional or alternative performance requirements are given in EN 30-1-2:1999 and EN 30-1-3: 2003 respectively.

#### 6.1.1.1 Obtaining the nominal heat input

Replace the 1<sup>st</sup> sentence of the 1<sup>st</sup> paragraph with the following:

6.1.2.1 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 applies to all burners without automatic burner control systems.

#### 6.1.1.2 Obtaining the reduced heat input

Replace the 1<sup>st</sup> sentence of the 1<sup>st</sup> paragraph with the following:

6.1.2.2 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 applies to all burners without automatic burner control systems.

#### 6.1.2 Flame supervision devices

*Replace the 1<sup>st</sup> sentence of the 1<sup>st</sup> paragraph with the following:* 

6.1.3 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 applies to all burners without automatic burner control systems.

#### 6.1.3.1 Resistance to overheating

Replace the text with the following:

6.1.4.1 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 is replaced with the following text.

#### **Resistance to overheating**

6.1.4.1 of EN30-1-1: 1998, its A1: 1999, its A2: 2003 and its A3: 2004 is applicable to all burners except those with a fan for the supply of combustion air and/or for the evacuation of the products of combustion.

#### 6.1.3.2 Escape of unburnt gas

Replace the1st paragraph with the following:

6.1.4.2 of EN 30-1-1:1998, its A1: 1999, its A2: 2003 and its A3: 2004 is applicable to all burners except those with a fan for the supply of combustion air and/or for the evacuation of the products of combustion.