

**Gaasi/õhu suhte kontrollimine  
gaasipõletites ja gaasipõleti seadmetes.  
Osa 1: Pneumaatilised tüübid**

Gas/air ratio controls for gas burners and gas  
burning appliances - Part 1: Pneumatic types

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12067-1:1999 sisaldab Euroopa standardi EN 12067-1:1998 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 12.12.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12067-1:1999 consists of the English text of the European standard EN 12067-1:1998.</p> <p>This document is endorsed on 12.12.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>Standardi see osa esitab ohutus-, konstruktsiooni- ja toimimisnõuded gaasi/õhu suhte kontrollseadmetele sisendrõhul kuni 500 mbar (kaasa arvatud), ühenduse nimisuurusel kuni DN 150 mm (kaasa arvatud), ette nähtud kasutamiseks gaasiseadmetes, mis kasutavad ühte või mitut küttegaasi esimesest, teisest või kolmandast gaasiklassist. Standard kirjeldab ka testimistoiminguid nende nõuete hindamiseks ja esitab vajaliku teabe nende seadmete paigaldamiseks ja kasutamiseks.</p>	<p><b>Scope:</b></p>
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ICS 27.060.20

**Võtmesõnad:** gaas, gaasiseadmed, materjalid, mõõtmed, ohutus, põletid, rõhuregulaatorid, seadmete tehnilised andmed, testid, tööomaduste hindamine, vastupidavus, õhk, ära kasutamine, ühenduskohad

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Descriptors: Gas appliances, controls, testing.

**English version**

**Gas/air ratio controls for gas burners and  
gas burning appliances**

**Part 1: Pneumatic types**

Dispositifs de régulation du rapport  
air/gaz pour brûleurs à gaz et appa-  
reils à gaz – Partie 1: Dispositifs  
pneumatiques

Gas-Luft-Verbundregler für Gas-  
brenner und Gasgeräte – Teil 1:  
Pneumatische Ausführung

This European Standard was approved by CEN on 1998-02-15.

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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

**CEN**

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

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## Contents

	Page
<b>Foreword</b>	3
1 Scope	4
2 Normative references	4
3 Definitions	5
4 Construction requirements	6
5 Performance requirements	12
6 Test methods	16
7 Instructions and declarations	27
8 Marking	28
<b>Annexes</b>	
A (informative) Use of ISO 7-1: 1994 and ISO 228-1: 1994 threads for gas connections	29
B (informative) Leak tightness test - volumetric method	30
C (informative) Leak tightness test - pressure loss method	32
D (informative) Conversion of pressure loss into leakage rate	33
ZA (informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives	34

## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 58, "Safety and control devices for gas-burners and gas-burning appliances", the secretariat of which is held by BSI.

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 1999, and conflicting national standards shall be withdrawn at the latest by April 1999.

This European Standard 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 standard.

This standard covers type testing only.

This Part of EN 12067 covers pneumatic type gas/air ratio controls. Other types will be covered in subsequent parts.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This Part of this European Standard, EN 12067 specifies the safety, construction and performance requirements for gas/air ratio controls for inlet pressures up to and including 500 mbar of nominal connection size up to and including DN 150 , intended for use with gas appliances for use with one or more fuel gases of the first, second or third families. It also describes the test procedures for evaluating these requirements and specifies information necessary for installation and use.

It applies to gas/air ratio controls for gas burning appliances that can be tested independently of the appliance.

It applies to gas/air ratio controls which function by controlling a gas pressure (or differential pressure) output in response to an air pressure (or differential pressure) signal input, but gas/air ratio controls which change the air pressure in response to the gas pressure are not excluded.

It does not cover mechanically linked valves and electronic systems.

NOTE: Parts of the standard can be applied to the construction and performance of the ratio control function of multi-functional controls.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publications referred to applies.

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|--------------------|---|
| EN 161: 1991       | <i>Automatic shut-off valves for gas burners and gas appliances</i>   |
| EN 60529: 1991     | <i>Degrees of protection provided by enclosures (IP codes).</i>   |
| EN 60730-1: 1995   | <i>Automatic electrical controls for household and similar use<br/>Part 1: General requirements</i>   |
| EN 60998-2-1: 1995 | <i>Connecting devices for low voltage circuits for household and similar purposes; part 2-1 : particular requirements for connecting devices as separate entities with screw-type clamping units.</i>     |
| EN 60998-2-2: 1995 | <i>Connecting devices for low voltage circuits for household and similar purposes; part 2-2 : particular requirements for connecting devices as separate entities with screwless type clamping units.</i> |

ISO 7-1: 1994	<i>Pipe threads where pressure-tight joints are made on the threads. Part 1: Dimensions, tolerances and designation.</i>
ISO 228-1: 1994	<i>Pipe threads where pressure-tight joints are not made on the thread. Part 1: Dimensions, tolerances and designation.</i>
ISO 262: 1973	<i>ISO General purpose metric screw threads Selected sizes for screws, bolts and nuts</i>
ISO 274: 1975	<i>Copper tubes of circular section - Dimensions</i>
ISO 301: 1981	<i>Zinc alloy ingots intended for casting.</i>
ISO 1817: 1985	<i>Rubber vulcanized - Determination of the effect of liquids</i>
ISO 7005	<i>Metallic flanges</i>

### 3 Definitions

For the purposes of this standard, the following definitions apply.

**3.1 gas/air ratio control:** (hereafter referred to as ratio control). control which supplies gas at specified pressures or differential pressures at it's outlet in response to a signal.

**3.2 standard conditions:** standard reference conditions are 15 °C, 1 013 mbar, dry.

#### 3.3 pressures

**3.3.1 inlet pressure:** gas pressure at the inlet of the ratio control.

**3.3.2 outlet pressure:** gas pressure at the outlet of the ratio control.

**3.3.3 signal pressure:** pressure input, differential pressure input or a combination of both applied to the ratio control in order to provide the specified gas outlet pressure or differential pressure.

**3.3.4 gas/air ratio:** slope of a straight line relationship between the outlet pressure and signal pressure applied to the ratio control.

#### 3.4 flow rates

**3.4.1 flow rate:** volume flowing through the ratio control per unit time in m<sup>3</sup>/h of air at standard conditions.