Gaasipõletite ja gaasiseadmete nullrõhu regulaatorid

Zero governors for gas burners and gas burning appliances



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

| Käesolev Eesti standard EVS-EN |
|---------------------------------------|
| 12078:1999 sisaldab Euroopa standardi |
| EN 12078:1998 ingliskeelset teksti. |

Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 12078:1999 consists of the English text of the European standard EN 12078:1998.

This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

Käsitlusala:

See standard määrab kindlaks ohutus-, konstruktsiooni- ja töönõuded gaasiseadmete nullrõhu regulaatoritele. Standard esitab ka nende nõuete hindamise protseduurid ning ostjale ja kasutajale vajaliku teabe. See standard kehtib gaasiseadmete nullrõhu regulaatorite kohta, mida saab kasutada ja katsetada neist seadmetest eraldi. Need nullrõhu regulaatorid sobivad ühe või enama 1., 2. ja 3. klassi küttegaasiga sisselaskerõhul kuni 200 mbar (kaasa arvatud).

Scope:

ICS 23.060.40

Võtmesõnad: gaasiseadmed, katsed, käituskatsed, lekketestid, materjalid, mõõtmed, määratlused, ohutus, põletid, rõhuregulaatorid, seadmete eristuskiri, tööomaduste hindamine, vastupidavus, ühenduskohad

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 12078

August 1998

ICS 23.060.40

Descriptors: Gas appliances, zero governors, testing.

English version

Zero governors for gas burners and gas burning appliances

Détendeurs à zéro pour brûleurs à gaz et appareils à gaz

Nulldruckregler für Gasbrenner und Gasgeräte

This European Standard was approved by CEN on 1998-07-26.

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

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Contents

| 1 | Page |
|---|--|
| Foreword | 3 |
| 1 Scope | 4 |
| 2 Normative references | 4 |
| 3 Definitions | 5 |
| 4 Units of measurement | 6 |
| 5 Construction requirements 5.1 General 5.2 Materials 5.3 Connections 5.4 Seals for glands for moving parts 5.5 Pressure test nipples | 6 6 7 8 9 |
| 6 Performance requirements 6.1 General 6.2 External leak-tightness 6.3 Torsion and bending 6.4 Durability 6.5 Zero governor performance 6.6 Endurance 6.7 Lock-up pressure 6.8 Response time | 9 9 10 10 11 12 12 12 13 |
| 6.6 Endurance 6.7 Lock-up pressure 6.8 Response time 7 Test methods 7.1 Mounting position 7.2 Test conditions 7.3 External leak-tightness 7.4 Torsion and bending 7.5 Durability 7.6 Zero governor performance test 7.7 Pressure drop (fully open) 7.8 Endurance 7.9 Lock-up pressure 7.10 Dynamic response test 8 Marking, installation and operating instructions 8.1 Marking 8.2 Installation, operating and servicing instructions 8.3 Warning notice Annex ZA (informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives Tables 1: Connection sizes 2: Maximum external leakage rates 3: Torque and bending moment 4: Gas pressure at injust to the zero governor. | 13 13 13 13 13 16 17 20 20 20 21 21 21 21 |
| Annex ZA (informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives | 22 |
| Tables | |
| 1: Connection sizes 2: Maximum external leakage rates 3: Torque and bending moment 4: Gas pressure at inlet to the zero governor | 8 10 11 12 |

Figures

| 1: Arrangement for torsion test | 14 |
|---|----|
| 2: Arrangement for bending moment test | 15 |
| 3: Paint scratch test apparatus | 17 |
| 4: Performance test rig | 19 |
| 5: Characteristics of p_2 as p_1 varies | 19 |
| 6: Characteristics of p_2 as q varies | 20 |

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

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.

Page 4

EN 12078: 1998

1 Scope

This standard specifies the safety, constructional and performance requirements for zero pressure governors, hereafter referred to as zero governors, intended for use with gas appliances. It also gives the test procedures for evaluating these requirements and information necessary for the purchaser and user.

This standard applies to zero governors for gas-burning appliances that may be used and tested independently of these appliances. These zero governors are suitable for one or more of the fuel gases of the 1st, 2nd and 3rd families, at inlet pressures up to and including 200 mbar.

This standard does not cover:

- a) zero governors connected directly to distribution pipework or to a container that maintains a standard distribution pressure;
- b) zero governors intended for gas appliances to be installed out-of-doors and exposed to the environment.

This standard covers type testing only

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 publication referred to applies.

| ISO 7-1: 1994 | Pipe threads where pressure-tight joints are made on the threads. Part 1: Dimensions, tolerances and designation. |
|------------------|---|
| ISO 65: 1981 | Carbon steel tubes suitable for screwing in accordance with ISO 7-1 |
| ISO 68: 1973 | ISO general purpose screw threads. Basic profile. |
| ISO 228-1: 1994 | Pipe threads where pressure-tight joints are not made on the threads. Part 1: Dimensions, tolerances and designation. |
| ISO 262: 1973 | ISO general purpose metric screw threads - Selected sizes for screws, bolts and nuts |
| ISO 274: 1975 | Copper tubes of circular section - Dimensions |
| ISO 301: 1981 | Zinc alloy ingots intended for casting |
| ISO 1817: 1985 | Rubber, vulcanized - Determination of the effect of liquids |
| ISO 7005 | Metallic flanges |
| EN 60730-1: 1995 | Automatic electrical controls for household and similar use Part 1: General requirements |