

Nederlandse norm

# NEN-EN 125+A1

(en)

Vlambeveiligingsinrichtingen voor  
gasverbruikstoestellen - Thermo-elektrische  
ontstekingsbeveiligingen

Flame supervision devices for gas burning  
appliances - Thermoelectric flame supervision  
devices

Vervangt NEN-EN 125:2010;  
NEN-EN 125:2010/2e Ontw. A1:2014

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

November 2015

ICS 27.060.20

Supersedes EN 125:2010

English Version

## Flame supervision devices for gas burning appliances - Thermoelectric flame supervision devices

Dispositifs de surveillance de flamme pour appareils à gaz - Dispositifs thermoelectriques de surveillance de flamme

Flammenüberwachungseinrichtungen für Gasgeräte - Thermoelektrische Züandsicherungen

This European Standard was approved by CEN on 22 April 2010 and includes Amendment 1 approved by CEN on 5 September 2015.

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Preview

## European foreword

This document (EN 125:2010+A1:2015) has been prepared by Technical Committee CEN/TC 58 "Safety and control devices for burners and appliances burning gaseous or liquid fuels", 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of an identical text or by endorsement, at the latest by May 2016, and conflicting national standards shall be withdrawn at the latest by May 2016.

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

This document includes Amendment 1 approved by CEN on 2015-09-05.

This document supersedes <sup>A1</sup> EN 125:2010 <sup>A1</sup>.

The start and finish of text introduced or altered by amendment is indicated in the text by tags <sup>A1</sup> <sup>A1</sup>.

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.

This document is intended to be used in conjunction with EN 13611:2007. This document refers to clauses of EN 13611:2007 and adapts clauses by stating "with the following modification", "with the following addition", "is replaced by the following" or "is not applicable" in the corresponding clause. This European Standard adds clauses or subclauses to the structure of EN 13611:2007 which are particular to this standard. It should be noted that these clauses and subclauses are not indicated as an addition.

It should be noted that the following significant technical changes compared to the previous edition have been incorporated in this European Standard:

- a) alignment with EN 13611:2007;
- b) updating of Clause 2, Normative references;
- c) new declaration of nominal diameter and maximum inlet pressure.

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## 1 Scope

This European Standard specifies the safety, construction and performance requirements for thermoelectric flame supervision devices, energized by a thermocouple intended for use with gas burners, gas appliances and similar use, hereafter referred to as "controls".

This European Standard is applicable to controls with declared maximum inlet pressures up to and including 500 kPa (5 bar) of nominal connection sizes up to and including DN 50 for use with one or more fuel gases in accordance with EN 437.

This European Standard is not applicable to:

- a) the thermocouple;
- b) controls which use auxiliary energy (e.g. electrical energy supplied externally).

## 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.

EN 13611:2007, *Safety and control devices for gas burners and gas burning appliances — General requirements*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13611:2007 and the following apply.

### 3.101

#### **thermocouple**

thermoelectric flame sensing element that responds to the temperature of the supervised flame, and in which the flame effect produces an electromotive force (e.m.f.)

### 3.102

#### **flame supervision device**

control which, in response to the e.m.f. produced by the thermocouple, maintains the gas way to the main burner or the main burner and the pilot burner open and which shuts off the gas way to the main burner at least, after extinction of the supervised flame

NOTE For further reference see Figure AA.1 and Figure AA.2.

### 3.103

#### **ignition interlock**

part which prevents the igniter from operating as long as the main gas way is open

### 3.104

#### **re-start interlock**

mechanism which prevents the re-opening of the gas way to the main burner or to the main burner and the pilot burner until the armature plate has separated from the magnetic element

NOTE For further reference see Figure AA.1 and Figure AA.2.



**3.105****sealing force**

force acting on the closure member when the closure member is in the closed position, independent of any force provided by fuel gas pressure

**3.106****closed position**

position of the closure member(s) in the absence of the thermoelectric energy

**4 Classification****4.1 Classes of control**

EN 13611:2007, 4.1 is replaced by the following:

Controls shall be classified A, B or C according to the number of operations as tested in 7.105.2.2.

**4.2 Groups of control**

Shall be according to EN 13611:2007, 4.2.

**4.3 Classes of control functions**

EN 13611:2007, 4.3 is not applicable.

**5 Units of measurement and test conditions**

Shall be according to EN 13611:2007, Clause 5.

**6 Construction requirements****6.1 General**

Shall be according to EN 13611:2007, 6.1 with the following addition:

Controls shall shut off the gas way to the burner automatically with at least the sealing force specified in 7.104 in case of failure in the thermoelectric current. Controls shall also be designed so that during ignition either the gas way to the main burner is open, if there is no pilot burner, or the gas way to the main burner is closed and that to the pilot burner is open.

**6.2 Mechanical parts of the control****6.2.1 Appearance**

Shall be according to EN 13611:2007, 6.2.1.

**6.2.2 Holes**

Shall be according to EN 13611:2007, 6.2.2.

**6.2.3 Breather holes**

EN 13611:2007, 6.2.3 is not applicable.

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