

GAASIPÕLETITE JA GAASIKÜTTESEADMETE OHUTUS- JA  
JUHTSEADMED. AUTOMAATSED SULGEVENTIILID  
TÖÖRÕHUGA ÜLE 500 KPA KUNI 6300 KPA

Safety and control devices for gas burners and gas  
burning appliances - Automatic shut-off valves for  
operating pressure of above 500 kPa up to and  
including 6 300 kPa

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 16678:2015 sisaldab Euroopa standardi EN 16678:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 16678:2015 consists of the English text of the European standard EN 16678:2015.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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English Version

## Safety and control devices for gas burners and gas burning appliances - Automatic shut-off valves for operating pressure of above 500 kPa up to and including 6 300 kPa

Équipements auxiliaires pour brûleurs à gaz et appareils à gaz - Robinets automatiques de sectionnement pour pression de service supérieure à 500 kPa et inférieure ou égale à 6 300 kPa

Sicherheits- und Regeleinrichtungen für Gasbrenner und Gasbrennstoffgeräte - Automatische Absperrventile für einen Betriebsdruck über 500 kPa bis einschließlich 6 300 kPa

This European Standard was approved by CEN on 19 September 2015.

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## European foreword

This document (EN 16678:2015) 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of an identical text or by endorsement, at the latest by May 2016, and conflicting national standards shall be withdrawn at the latest by May 2016.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 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 Directives 2009/142/EC and 97/23/EC.

For relationship with EU Directives, see informative Annexes ZA and ZB, which are an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This European Standard specifies the safety, design, construction and performance requirements and testing for automatic shut-off valves with or without modulating control functions (hereafter referred to as 'valves') for burners and appliances burning one or more gaseous fuels according to EN 437:2003+A1:2009.

This European Standard is applicable to valves with declared maximum inlet pressures of more than 500 kPa (5 bar) and up to and including 6 300 kPa (63 bar).

This European Standard is applicable to

- electrically operated valves and to valves actuated by fluids including the pilot valves for these fluids if actuated electrically and including release valves, but not to any external electrical devices for switching the actuating energy;
- automatic shut-off valves where the flow rate is controlled by external electrical signals proportional to the applied signal.

This European Standard is not applicable to valves specifically designed for use in transmission and distribution networks.

NOTE Provisions for final product inspection and testing by the manufacturer are not specified.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 161:2011+A3:2013, *Automatic shut-off valves for gas burners and gas appliances*

EN 549:1994, *Rubber materials for seals and diaphragms for gas appliances and gas equipment*

EN 682:2002, *Elastomeric Seals — Materials requirements for seals used in pipes and fittings carrying gas and hydrocarbon fluids*

EN 1092-1:2007+A1:2013, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 1: Steel flanges*

EN 1092-2:1997, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 2: Cast iron flanges*

EN 1092-3:2003, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 3: Copper alloy flanges*

EN 1092-4:2002, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 4: Aluminium alloy flanges*

EN 1759-1:2004, *Flanges and their joint — Circular flanges for pipes, valves, fittings and accessories, Class designated — Part 1: Steel flanges, NPS 1/2 to 24*

EN 1759-3:2003, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, Class designated — Part 3: Copper alloy flanges*

EN 1759-4:2003, *Flanges and their joint — Circular flanges for pipes, valves, fittings and accessories, class designated — Part 4: Aluminium alloy flanges*

EN 10226-1:2004, *Pipe threads where pressure tight joints are made on the threads — Part 1: Taper external threads and parallel internal threads — Dimensions, tolerances and designation*

EN 10226-2:2005, *Pipe threads where pressure tight joints are made on the threads — Part 2: Taper external threads and taper internal threads — Dimensions, tolerances and designation*

EN 12516-1:2014, *Industrial valves — Shell design strength — Part 1: Tabulation method for steel valve shells*

EN 12516-2:2014, *Industrial valves — Shell design strength — Part 2: Calculation method for steel valve shells*

EN 12516-3:2002, *Valves — Shell design strength — Part 3: Experimental method*

EN 12516-4:2014, *Industrial valves — Shell design strength — Part 4: Calculation method for valve shells manufactured in metallic materials other than steel*

EN 12627:1999, *Industrial valves — Butt welding ends for steel valves*

EN 12760:1999, *Valves — Socket welding ends for steel valves*

EN 13611:2007+A2:2011, *Safety and control devices for gas burners and gas burning appliances — General requirements*

EN 60529:1991, *Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989)*

EN 60730-1:2011, *Automatic electrical controls for household and similar use — Part 1: General requirements (IEC 60730-1:2010)*

EN 61058-1:2002, *Switches for appliances — Part 1: General requirements (IEC 61058-1:2000)*

EN 175301-803:2006, *Detail Specification: Rectangular connectors — Flat contacts, 0,8 mm thickness, locking screw not detachable*

ISO 188, *Rubber, vulcanized or thermoplastic — Accelerated ageing and heat resistance tests*

ISO 1431-1, *Rubber, vulcanized or thermoplastic — Resistance to ozone cracking — Part 1: Static and dynamic strain testing*

ISO 1817, *Rubber, vulcanized or thermoplastic — Determination of the effect of liquids*

ISO 8573-1:2010, *Compressed air — Part 1: Contaminants and purity classes*

### **3 Terms and definitions**

For the purposes of this document, the terms and definitions given in EN 13611:2007+A2:2011, EN 161:2011+A3:2013, and the following apply.

#### **3.101**

##### **pilot valve**

valve which controls the fluid (e.g. compressed air) supplied to the actuating mechanism