Ohutusseadmed kaitseks ülerõhu eest. Osa 4: Pilootjuhitavad kaitseklapid

Safety devices for protection against excessive CE pt-op. pressure - Part 4: Pilot-operated safety valves (ISO 4126-4:2013)



FESTI STANDARDI FESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 4126-4:2013 sisaldab Euroopa standardi EN ISO 4126-4:2013 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 4126-4:2013 consists of the English text of the European standard EN ISO 4126-4:2013.	
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.	
,	Date of Availability of the European standard is 17.07.2013.	
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.	

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 13.240

Võtmesõnad: performance tests, pneumatic tests, pressure, pressure control valves, pressure overload, pressure tests, safety device, safety devices, safety requirements, safety valves, specification, specification (approval), specifications, testing, tests, type testing, valves,

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega: Aru 10, 10317 Tallinn, Eesti; <u>www.evs.ee</u>; telefon 605 5050; e-post <u>info@evs.ee</u>

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation: Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

EN ISO 4126-4

NORME EUROPÉENNE EUROPÄISCHE NORM

July 2013

ICS 13.240

Supersedes EN ISO 4126-4:2004

English Version

Safety devices for protection against excessive pressure - Part 4: Pilot-operated safety valves (ISO 4126-4:2013)

Dispositifs de sécurité pour protection contre les pressions excessives - Partie 4: Soupapes de sûreté pilotées (ISO 4126-4:2013)

Sicherheitseinrichtungen gegen unzulässigen Überdruck -Teil 4: Pilotgesteuerte Sicherheitsventile (ISO 4126-4:2013)

This European Standard was approved by CEN on 28 December 2012.

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 CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

This document (EN ISO 4126-4:2013) has been prepared by Technical Committee ISO/TC 185 "Safety devices for protection against excessive pressure" in collaboration with Technical Committee CEN/TC 69 "Industrial valves" the secretariat of which is held by AFNOR.

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 January 2014, and conflicting national standards shall be withdrawn at the latest by January 2014.

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 supersedes EN ISO 4126-4:2004.

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.

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.

Endorsement notice

The text of ISO 4126-4:2013 has been approved by CEN as EN ISO 4126-4:2013 without any modification.

Annex ZA (informative)

Relationship between this International Standard and the Essential Requirements of EU Directive 97/23/EC (PED)

By agreement between ISO and CEN, this CEN annex is included in the DIS and the FDIS but will not appear in the published ISO standard.

This International Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide one means of conforming to Essential Requirements of the New Approach Directive 97/23/EC (PED).

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this International Standard and Directive 97/23/EC (PED)

Sub-clauses of this International	Essential Requirements of Directive 97/23/EC (PED)		
Standard	Essential Requirements	Annex I of PED	
5,6,7,8,9	Safety accessories	2.11.1	
5.1.5	Safety of operation	2.3	
5.1.6	Drain and venting	2.5	
6.3	Proof test	3.2.2	
10	Marking and labelling	3.3	

WARNING: Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

Cor	itent	ts		Page
Fore	word			iv
1	Scop	oe		1
2	Norr	mative references		1
3	Tern	ns and definitions		1
4	Sym	bols and units		5
5		gn		
	5.1	General		5
	5.2	Valve end connections		
	5.3 5.4	Minimum requirements for springs Materials		
6	6.1	Purpose		
	6.2	General		
	6.3	Hydrostatic testing		
	6.4	Pneumatic testing		
	6.5 6.6	Adjustment of set or cold differential tes		
	6.7	Pressure seals		
7	Tyne	e testing		q
,	7.1	General		9
	7.2	Tests to determine operating characteris	stics	10
	7.3	Tests to determine flow characteristics		
	7.4 7.5	Determination of the coefficient of disch Certification of coefficient of discharge		
0				
8		ermination of pilot operated safety valve	7	
9	Sizin	ng of pilot operated safety valves		14
10		king and sealing		14
	10.1 10.2	0		14 15
D:1.1:			2-	4.0
	ogi api	hy		<u> </u>

Safety devices for protection against excessive pressure —

Part 4:

Pilot operated safety valves

1 Scope

This part of ISO 4126 specifies general requirements for pilot operated safety valves, irrespective of the fluid for which they are designed. In all cases, the operation is carried out by the fluid in the system to be protected.

It is applicable to pilot operated safety valves having a valve flow diameter of 4 mm and above which are for use at set pressures of 0,1 bar gauge and above. No limitation is placed on temperature.

This is a product standard and it is not applicable to applications of pilot operated safety valves.

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.

ISO 4126-7:2013, Safety devices for protection against excessive pressure — Part 7: Common data

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

pilot operated safety valve

self-actuated device comprising a main valve and an attached pilot

Note 1 to entry: The pilot responds to the pressure of the fluid without any other actuating energy than the fluid itself and controls the operation of the main valve. The main valve opens when the fluid pressure that keeps it closed is removed or reduced. The main valve re-closes when the pressure is re-applied.

Note 2 to entry: See Figure 1 for a list of main components.

3.2

main valve

parts of a pilot operated safety valve, through which the discharge capacity is achieved

3.3

flowing pilot

pilot which discharges the fluid throughout the relieving cycle of the pilot operated safety valve