BS ISO 23551-6:2014

BSI Standards Publication

Safety and control devices for gas burners and gas-burning appliances — Particular requirements

Part 6: Thermoelectric flame supervision controls

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National foreword

This British Standard is the UK implementation of ISO 23551-6:2014.

The UK participation in its preparation was entrusted to Technical Committee GSE/22, Safety and control devices for gas and oil burners and gas burning appliances.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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ISBN 978 0 580 79573 2

ICS 27.060.20

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 August 2014.

Amendments issued since publication

Date	Text affected

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INTERNATIONAL STANDARD

ISO 23551-6

First edition
2014-08-15

Safety and control devices for gas burners and gas-burning appliances — Particular requirements —

Part 6: Thermoelectric flame supervision controls

Dispositifs de commande et de sécurité pour brûleurs à gaz et appareils à gaz — Exigences particulières —

Partie 6: Équipements thermoélectriques de surveillance de flamme

Reference number
ISO 23551-6:2014(E)

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Published in Switzerland

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 161, *Control and protective devices for gas and/or oil burners and appliances*.

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Introduction

This part of ISO 23551 is designed to be used in combination with ISO 23550. This part, together with ISO 23550, establishes the full requirements as they apply to the product covered by this International Standard. This part adapts ISO 23550, where needed, by stating "with the following modification", "with the following addition", "is replaced by the following", or "is not applicable", in the corresponding clause. In order to identify specific requirements that are particular to this part, that are not already covered by ISO 23550, this International Standard might contain clauses or subclauses that are additional to the structure of ISO 23550. These clauses are numbered starting from 101 or, in the case of an Annex, are designated AA, BB, CC etc.

In an attempt to develop a fully International Standard, it has been necessary to take into consideration the differing requirements resulting from practical experience and installation practices in various regions of the world and to recognize the variation in basic infrastructure associated with gas and/or oil controls and appliances, some of which are addressed in Annexes E, F, and G. This International Standard intends to provide a basic framework of requirements that recognize these differences.

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INTERNATIONAL STANDARD ISO 23551-6:2014(E)

Safety and control devices for gas burners and gas-burning appliances — Particular requirements —

Part 6: Thermoelectric flame supervision controls

1 Scope

This part of ISO 23551 specifies safety, constructional, and performance requirements for thermoelectric flame supervision controls, energized by a thermocouple, intended for use with gas burners and gas-burning appliances, hereafter referred to as "controls".

This part of ISO 23551 applies to thermoelectric flame supervision controls for gas burners and gas-burning appliances of nominal connection size up to, and including DN 50, that can be used and tested independently of these appliances.

These thermoelectric flame supervision controls are suitable for fuel gases, such as natural gas, manufactured gas, or liquefied petroleum gas (LPG) at inlet pressures up to and including 50 kPa.

This International Standard covers type testing only.

This International Standard is not applicable to

a) the thermocouple and

b) controls which use auxiliary energy (e.g. electrical energy supplied externally).

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.

ISO 23550:2011, *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 ISO 23550 and the following apply.

3.101
thermocouple
thermoelectric flame sensing element that responds to the temperature of the supervised flame, resulting in an electromotive force (e.m.f.)

3.102
thermoelectric flame supervision control
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 after extinction of the supervised flame

Note 1 to entry: For example, see Figure AA.1.

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