

# Non-electrical equipment intended for use in potentially explosive atmospheres —

## Part 5: Protection by constructional safety “c”

The European Standard EN 13463-5:2003 has the status of a  
British Standard

ICS 13.230

## National foreword

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Appareils non électriques destinés à être utilisés en  
atmosphères explosibles - Partie 5: Protection par sécurité  
de construction "c"

Nicht-elektrische Geräte für den Einsatz in  
explosionsgefährdeten Bereichen - Teil 5: Schutz durch  
Konstruktive Sicherheit "c"

This European Standard was approved by CEN on 1 September 2003.

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## Foreword

This document EN 13463-5:2003 has been prepared by Technical Committee CEN/TC 305 "Potentially explosive atmospheres - Explosion prevention and protection", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by June 2004, and conflicting national standards shall be withdrawn at the latest by June 2004.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.

Annex A is informative. Annex B is normative.

This document includes a Bibliography.

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

## Introduction

Non-electrical equipment has been used for over 150 years in industries having potentially explosive atmospheres and a great deal of experience has been gained in the application of protective measures to reduce the risk of ignition to an acceptably safe level. With the introduction of the ATEX Directive 94/9/EC and the inclusion of non-electrical equipment in its scope, it became necessary to produce ignition protection concept standards which clearly defined these protective measures and incorporated the extensive and diverse experience gained over the years.

One of the methods of applying ignition protection, had been to select types of equipment not containing an ignition source in normal service and then apply good engineering principles, so that risk of mechanical failures likely to create incendive temperatures or sparks, was reduced to a very low level. Such protective measures are referred to in this standard as ignition protection by 'Constructional Safety', or type of protection 'c'.

The purpose of this standard, is therefore to specify the requirements for equipment, protected by the type of protection 'c' which meets the essential safety and health requirements described in Directive 94/9/EC.

## 1 Scope

**1.1** This European standard specifies the requirements for the design and construction of non-electrical equipment, intended for use in potentially explosive atmospheres, protected by the type of protection Constructional Safety "c".

**1.2** This standard supplements the requirements in EN 13463-1, the contents of which also apply in full to equipment constructed in accordance with this standard.

**1.3** Equipment complying with the relevant clauses of this standard meet the requirements for the following categories:

- Equipment Group I Category M2;
- Equipment Group II Category 2G or 2D;
- Equipment Group II Category 1G or 1D;

**NOTE** The requirements for Group I, Category M1 equipment, are given in EN 50303 which specifies the requirements for both electrical and non-electrical equipment.

**1.4** The type of ignition protection described in the standard can be used either on it's own or in combination with other types of ignition protection to meet the requirements for equipment of Group I, categories M1 and M2 or Group II, categories 1 and 2 depending on the ignition hazard assessment in EN 13463-1.