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Edition 1

**EN 13763-9:2003**

Edition 1

# **SOUTH AFRICAN NATIONAL STANDARD**

## **Explosives for civil uses — Detonators and relays**

### **Part 9: Determination of resistance to bending of detonators**

This national standard is the identical implementation of EN 13763-9:2003, and is adopted with the permission of CEN, rue de Stassart 36, B-1050 Brussels.

#### **WARNING**

**This document references other documents normatively.**

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**Table of changes**

<b>Change No.</b>	<b>Date</b>	<b>Scope</b>

**National foreword**

This South African standard was approved by National Committee SABS/TC 1064, *Explosives and detonators*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

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## Explosives for civil uses - Detonators and relays - Part 9: Determination of resistance to bending of detonators

Explosifs à usage civil - Détonateurs et relais - Partie 9:  
Détermination de la résistance à la flexion des détonateurs

Explosivstoffe für zivile Zwecke - Zünder und  
Verzögerungselemente - Teil 9: Bestimmung des  
Widertandes von Zündern gegen Biegespannung

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
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## Foreword

This document (EN 13763-9:2003) has been prepared by Technical Committee CEN/TC 321 "Explosives for civil uses", the Secretariat of which is held by AENOR.

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of an identical text or by endorsement, at the latest by May 2004, and conflicting national standards shall be withdrawn at the latest by May 2004.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 the relationship with EU Directive(s), see informative annex ZA, which is an integral part of this document.

This European Standard is one of a series of standards with the generic title *Explosives for civil uses – Detonators and relays*. The other parts of this series are listed below:

- prEN 13763-1 Part 1: *Requirements.*
- EN 13763-2 Part 2: *Determination of thermal stability.*
- EN 13763-3 Part 3: *Determination of sensitiveness to impact.*
- EN 13763-4 Part 4: *Determination of resistance to abrasion of leading wires and shock tubes.*
- EN 13763-5 Part 5: *Determination of resistance to cutting damage of leading wires and shock tubes.*
- EN 13763-6 Part 6: *Determination of resistance to cracking at low temperatures of leading wires.*
- EN 13763-7 Part 7: *Determination of the mechanical strength of leading wires, shock tubes, connections, crimps and closures.*
- EN 13763-8 Part 8: *Determination of resistance to vibration of plain detonators.*
- EN 13763-11 Part 11: *Determination of resistance to damage by dropping of detonators and relays.*
- EN 13763-12 Part 12: *Determination of resistance to hydrostatic pressure.*
- prEN 13763-13 Part 13: *Determination of resistance of electric detonators against electrostatic discharge.*
- prEN 13763-15 Part 15: *Determination of equivalent initiating capability.*
- prEN 13763-16 Part 16: *Determination of delay accuracy.*
- prEN 13763-17 Part 17: *Determination of no-fire current of electric detonators.*
- prEN 13763-18 Part 18: *Determination of series firing current of electric detonators.*
- prEN 13763-19 Part 19: *Determination of firing impulse of electric detonators.*
- EN 13763-20 Part 20: *Determination of total electrical resistance of electric detonators.*
- prEN 13763-21 Part 21: *Determination of flash-over voltage of electric detonators.*