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**Varnost strojev - Splošne zahteve za brezžično povezavo upravljalnikov e nadzornih sistemov strojev (IEC 62745:2017)**

Safety of machinery - General requirements for cableless control systems of machinery (IEC 62745:2017)

Sicherheit von Maschinen - Anforderungen für kabellose Steuerungen an Maschinen (IEC 62745:2017)

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Sécurité des machines – Exigences générales pour les systèmes de commande sans fil des machines (IEC 62745:2017)

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**ICS:**

13.110	Varnost strojev	Safety of machinery
35.100.01	Medsebojno povezovanje odprtih sistemov na splošno	Open systems interconnection in general

**SIST EN 62745:2017**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 62745**

June 2017

ICS 13.110; 29.020; 35.100.01

English Version

**Safety of machinery - Requirements for cableless control  
systems of machinery  
(IEC 62745:2017)**

Sécurité des machines - Exigences générales pour les  
systèmes de commande sans fil des machines  
(IEC 62745:2017)

Sicherheit von Maschinen - Anforderungen für kabellose  
Steuerungen an Maschinen  
(IEC 62745:2017)

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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

**EN 62745:2017****European foreword**

The text of document 44/783/FDIS, future edition 1 of IEC 62745, prepared by IEC/TC 44 "Safety of machinery - Electrotechnical aspects" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62745:2017.

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IEC 60068-2-1	NOTE	Harmonized as EN 60068-2-1.
IEC 60068-2-2	NOTE	Harmonized as EN 60068-2-2.
IEC 60068-2-6	NOTE	Harmonized as EN 60068-2-6.
IEC 60068-2-27	NOTE	Harmonized as EN 60068-2-27.
IEC 60068-2-30	NOTE	Harmonized as EN 60068-2-30.
IEC 60068-2-64	NOTE	Harmonized as EN 60068-2-64.
IEC 60204 (Series)	NOTE	Harmonized as EN 60204 (Series).
IEC 60870-5-1	NOTE	Harmonized as EN 60870-5-1.
IEC 60947-5-8	NOTE	Harmonized as EN 60947-5-8.
IEC 61508 (Series)	NOTE	Harmonized as EN 61508 (Series).
IEC 61784-1	NOTE	Harmonized as EN 61784-1.
IEC 61784-3:2016	NOTE	Harmonized as EN 61784-3:2016.
ISO 12100	NOTE	Harmonized as EN ISO 12100.

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2-31	2008	Environmental testing -- Part 2-31: Tests - Test Ec: Rough handling shocks, primarily for equipment-type specimens	EN 60068-2-31	2008
IEC 60204-1 (mod)	2005	Safety of machinery - Electrical equipment of machines -- Part 1: General requirements	EN 60204-1	2006
-	-		+ corrigendum Feb. 2010	
IEC 60947-5-1	2016	Low-voltage switchgear and controlgear - Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices	EN 60947-5-1	2016
IEC 60947-5-5	-	Low-voltage switchgear and controlgear -- Part 5-5: Control circuit devices and switching elements - Electrical emergency stop device with mechanical latching function	EN 60947-5-5	-
IEC 62061	-	Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems	EN 62061	-
ISO 13849-1	-	Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design	EN ISO 13849-1	-
ISO 13849-2	-	Safety of machinery - Safety-related parts of control systems - Part 2: Validation	EN ISO 13849-2	-
ISO 13850	-	Safety of machinery - Emergency stop function - Principles for design	EN ISO 13850	-

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IEC 62745

Edition 1.0 2017-03

# INTERNATIONAL STANDARD



**Safety of machinery – Requirements for cableless control systems of machinery**  
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INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

ICS 13.110; 29.020; 35.100.01

ISBN 978-2-8322-4013-7

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CABLELESS CONTROL SYSTEMS OF MACHINERY****FOREWORD**

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International Standard IEC 62745 has been prepared by IEC technical committee 44: Safety of machinery – Electrotechnical aspects.

The text of this standard is based on the following documents:

FDIS	Report on voting
44/783/FDIS	44/785/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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## INTRODUCTION

Cableless control systems (CCS) are increasingly being used to provide an operator interface on a wide range of machinery. The functionality of a CCS and the way in which it interfaces with the overall machine control system can therefore affect the safety of the machinery.

IEC 62745 specifies requirements for the functionality of a CCS that is interfaced with or is part of a machine control system for use as an operator control station on a machine.

The extent to which the functionality of a CCS is relied upon to minimise risk on a machine is a key selection criterion. It is therefore important to select a CCS that provides suitable control functions with an appropriate safety integrity in accordance with the risk assessment at the machine.

In some particular applications, the requirements for a CCS can exceed those specified in this document.

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