

Low-voltage switchgear and controlgear

**Part 5-5. Control circuit devices and
switching elements — Electrical
emergency stop devices with
mechanical latching function
(IEC 60947-5-5:1997)**

ICS 29.130.20

National foreword

This British Standard is the UK implementation of EN 60947-5-5:1998+A2:2017. It is derived from IEC 60947-5-5:1997, incorporating amendments 1:2005 and 2:2016. It supersedes BS EN 60947-5-5:1998+A11:2013 which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by **A1** **A1**.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CENELEC text carry the number of the CENELEC amendment. For example, text altered by CENELEC amendment A11 is indicated by **C11** **C11**.

The UK participation in its preparation was entrusted by Technical Committee PEL/121, Switchgear and Controlgear and their assemblies for low voltage, to Subcommittee PEL/121/1, Low voltage switchgear and controlgear.

A list of organizations represented on this subcommittee 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.

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard, having been prepared under the direction of the Electrotechnical Sector Board, was published under the authority of the Standards Board and comes into effect on 15 April 1998

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Amendments/corrigenda issued since publication

Amd. No.	Date	Comments
15592	31 October 2006	Implementation of IEC amendment 1:2005, with CENELEC endorsement A1:2005
	30 April 2013	Implementation of CENELEC amendment A11:2013. Annex ZZ inserted
	31 March 2017	Implementation of IEC amendment 2:2016, with CENELEC endorsement A2:2017

ICS 29.120.60

Descriptors: Control circuit device, emergency stop device, latching function

English version

Low-voltage switchgear and controlgear
Part 5-5: Control circuit devices and switching elements –
Electrical emergency stop device with mechanical latching function
(IEC 60947-5-5:1997)

Appareillage à basse tension
Partie 5-5: Appareils et éléments
de commutation pour circuits de
commande - Appareil d'arrêt d'urgence
électrique à accrochage mécanique
(CEI 60947-5-5:1997)

Niederspannungsschaltgeräte
Teil 5-5: Steuergeräte und
Schaltelemente
Elektrisches NOT-AUS-Gerät mit
mechanischer Verrastfunktion
(IEC 60947-5-5:1997)

This European Standard was approved by CENELEC on 1997-10-01. CENELEC 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 Central Secretariat or to any CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

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Foreword

The text of document 17B/837/FDIS, future edition 1 of IEC 60947-5-5, prepared by SC 17B, Low-voltage switchgear and controlgear, of IEC TC 17, Switchgear and controlgear, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60947-5-5 on 1997-10-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 1998-08-01
- latest date by which the national standards conflicting
with the amendment have to be withdrawn (dow) 1998-08-01

This standard is to be used in conjunction with EN 60947-1 : 1997 and EN 60947-5-1 : 1997.

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annex ZA is normative and annex A is informative.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of International Standard IEC 60947-5-5:1997 was approved by CENELEC as a European Standard without any modification.

Foreword to amendment A1

The text of document 17B/1389/FDIS, future amendment 1 to IEC 60947-5-5:1997, prepared by SC 17B, Low-voltage switchgear and controlgear, of IEC TC 17, Switchgear and controlgear, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60947-5-5:1997 on 2005-03-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2005-12-01
- latest date by which the national standards conflicting
with the amendment have to be withdrawn (dow) 2008-03-01

 This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2006/42/EC.

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

This document covers the principle elements of the safety objectives for electrical equipment designed for use within certain voltage limits (LVD - 2006/95/EC).

Annexes ZA and ZZ have been added by CENELEC. 

Endorsement notice

The text of amendment 1:2005 to the International Standard IEC 60947-5-5:1997 was approved by CENELEC as an amendment to the European Standard without any modification.

Foreword to amendment A11

This document (EN 60947-5-5:1997/A11:2013) has been prepared by CLC/TC 17B "Low-voltage switchgear and controlgear".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2013-12-03
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2015-12-03

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

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For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

Foreword to amendment A2

The text of document 121A/60/FDIS, future IEC 60947-5-5:1997/A2, prepared by SC 121A "Low-voltage switchgear and controlgear" of IEC/TC 121 "Switchgear and controlgear and their assemblies for low voltage" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60947-5-5:1997/A2:2017.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2017-08-24
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2020-02-24

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For the relationship with EU Directive see informative Annex ZZ, which is integral part of this document.

Endorsement notice

The text of the International Standard IEC 60947-5-5:1997/A2:2016 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068-2-75	NOTE	Harmonized as EN 60068-2-75.
IEC 60073:2002	NOTE	Harmonized as EN 60073:2002 (not modified).
IEC 60204-1:2005	NOTE	Harmonized as EN 60204-1:2006 (modified).
IEC 60204-1:2005/A1:2008	NOTE	Harmonized as EN 60204-1:2006/A1:2009 (not modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE Where an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-441	1984	International Electrotechnical Vocabulary (IEV) Chapter 441: Switchgear, controlgear and fuses	-	-
A1	2000		-	-
IEC 60068-2-1	2007	Environmental testing - Part 2-1: Tests - Test A: Cold	EN 60068-2-1	2007
IEC 60068-2-2	2007	Environmental testing - Part 2-2: Tests - Test B: Dry heat	EN 60068-2-2	2007
IEC 60068-2-6	2007	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	2008
IEC 60068-2-11	1981	Part 2: Tests - Test Ka: Salt mist	EN 60068-2-11	1999
IEC 60068-2-27	2008	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	EN 60068-2-27	2009
IEC 60068-2-30	2005	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	EN 60068-2-30	2005
IEC 60073	2002	Basic and safety principles for man-machine interface, marking and identification - Coding principles for indicators and actuators	EN 60073	2002
IEC 60204-1	1997	Safety of machinery - Electrical equipment of machines Part 1: General requirements	EN 60204-1 + corr. September	1997 1998
A1	1999		-	-
IEC 60417-DB	2002	Graphical symbols for use on equipment	-	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60721-3-3	1994	Classification of environmental conditions Part 3: Classification of groups of environmental parameters and their severities -- Section 3: Stationary use at weatherprotected locations	EN 60721-3-3	1995
A1	1995		-	-
A2	1996		A2	1997
IEC 60947-1	2007	Low-voltage switchgear and controlgear - Part 1: General rules	EN 60947-1	2007
+A1	2010		+A1	2011
+A2	2014		+A2	2014
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	201X ¹⁾
IEC 61310-1	2007	Safety of machinery - Indication, marking and actuation - Part 1: Requirements for visual, acoustic and tactile signals	EN 61310-1	2008
ISO 3864	1984	Safety colours and safety signs	-	-
ISO 13850	2015	Safety of machinery - Emergency stop function - Principles for design	EN ISO 13850	2015

¹⁾ To be published.

Annex ZZ (informative)

Relationship between this European standard and the safety objectives of Directive 2014/35/EU [2014 OJ L96] aimed to be covered

This European standard has been prepared under a Commission's standardisation request relating to harmonised standards in the field of the Low Voltage Directive, M/511, to provide one voluntary means of conforming to safety objectives of Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits [2014 OJ L96].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZ.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding safety objectives of that Directive, and associated EFTA regulations.

**Table ZZ.1 – Correspondence between this European standard and Annex I of
Directive 2014/35/EU [2014 OJ L96]**

Safety objectives of Directive 2014/35/EU	Clause(s) / sub-clause(s) of this EN	Remarks/note ¹
1 a)	Foreword, 4	
1 b)	Foreword, 4	
1 c)	-	Not relevant.
2 a)	Foreword, 5.2, 5.3, 5.4, 7.7	
2 b)	Foreword, 5.2, 5.4, 7.4	
2 c)	Foreword, 4.2, 5.4, 6.4, 7.2, 7.3, 7.5, 7.6, 7.7, Annex A	
2 d)	Foreword, 5.2, 5.4, 6.4, 7.4, 7.7	
3 a)	Foreword, 5.2, 5.4, 6.4, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7	
3 b)	-	No hazard identified for products falling under the scope of this standard.
3 c)	Foreword, 6.4, 7.4, 7.7	
¹ Only special requirements for emergency stop pushbuttons with latching function are covered by this standard. All other relevant requirements are given in EN 60947-1 and EN 60947-5-1 as described in the foreword.		

WARNING 1: Presumption of conformity stays valid only as long as a reference to this European standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2: Other Union legislation may be applicable to the product(s) falling within the scope of this standard.