

Australian/New Zealand Standard™

Low-voltage switchgear and controlgear

**Part 5.5: Control circuit devices and
switching elements—Electrical
emergency stop device with mechanical
latching function**



AS/NZS IEC 60947.5.5:2015

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-006, Industrial Switchgear and Controlgear. It was approved on behalf of the Council of Standards Australia on 28 May 2015 and on behalf of the Council of Standards New Zealand on 4 August 2015. This Standard was published on 23 September 2015.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-006, Industrial Switchgear and Controlgear, to supersede AS/NZS 3947.5.5:2000.

The objective of this Standard is to provide detailed specifications relating to the electrical and mechanical construction of emergency stop devices with mechanical latching function and to their testing.

This Standard is identical with, and has been reproduced from, IEC 60947-5-5, Ed. 1.1 (2005), *Low-voltage switchgear and controlgear*, Part 5.5: *Control circuit devices and switching elements—Electrical emergency stop device with mechanical latching function*. A vertical line in the margin shows where IEC 60947-5-5, Ed. 1.0 (1997), is modified by its Amendment 1 (2005).

As this Standard is reproduced from an International Standard, the following applies:

- (a) In the source text ‘this section of IEC 60947-5’ should read ‘this Australian/New Zealand Standard’.
- (b) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
IEC		AS	
60068	Environmental testing	60068	Environmental testing
60068-2-1	Part 2-1: Tests—Test A: Cold Amendment 1 (1993) Amendment 2 (1994)	60068.2.1	Part 2.1: Tests—Test A: Cold
60068-2-2	Part 2-2: Tests—Test B: Dry heat Amendment 1 (1993) Amendment 2 (1994)	60068.2.2	Part 2.2: Tests—Test B: Dry heat
60068-2-6	Part 2-6: Tests—Test Fc: Vibration (sinusoidal)	60068.2.6	Part 2.6: Tests—Test Fc: Vibration (sinusoidal)
60068-2-11	Part 2-11: Tests—Test Ka: Salt mist	60068.2.11	Part 2.11: Tests—Test Ka: Salt mist
60068-2-27	Part 2-27: Tests—Test Ea and guidance: Shock	60068.2.27	Part 2.27: Tests—Test Ea and guidance: Shock
60068-2-30	Part 2-30: Tests—Test Db and guidance: Damp heat, cyclic (12+12-hour cycle) Amendment 1 (1985)	60068.2.30	Part 2.30: Tests—Test Db and guidance: Damp heat, cyclic (12+12-hour cycle)
60204	Safety of machinery—Electrical equipment of machines	60204	Safety of machinery—Electrical equipment of machines
60204-1	Part 1: General requirements Amendment 1 (1999)	60204.1	Part 1: General requirements (IEC60204-1, Ed. 5 (FDIS) MOD)
		AS/NZS IEC	
60947	Low-voltage switchgear and controlgear	60947	Low-voltage switchgear and controlgear
60947-1	Part 1: General rules	60947.1	Part 1: General rules
60947-5-1	Part 5-1: Control circuit devices and switching elements— Electromechanical control circuit devices	60947.5.1	Part 5.1: Control circuit devices and switching elements— Electromechanical control circuit devices

Only normative references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

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INTRODUCTION

The present IEC 60947-5-5 deals specifically with electrical emergency stop devices with mechanical latching function and gives additional electrical and mechanical requirements to those given in the following International Standards:

- ISO 13850 giving requirements for the emergency stop function of a machine, whatever be the energy used;
- IEC 60204-1 giving additional requirements for an emergency stop function realized by the electrical equipment of a machine;
- IEC 60947-5-1 specifying electrical characteristics of electromechanical control circuit devices.

AUSTRALIAN/NEW ZEALAND STANDARD

Low-voltage switchgear and controlgear

Part 5.5:

Control circuit devices and switching elements—Electrical emergency stop device with mechanical latching function**1 Scope**

This section of IEC 60947-5 provides detailed specifications relating to the electrical and mechanical construction of emergency stop devices with mechanical latching function and to their testing.

This standard is applicable to electrical control circuit devices and switching elements which are used to initiate an emergency stop signal. Such devices may be either provided with their own enclosure, or installed according to the manufacturer's instructions.

This standard does not apply to:

- emergency stop devices for non-electrical control circuit, for example hydraulic, pneumatic;
- emergency stop devices without mechanical latching function.

An emergency stop device may also be used to provide an emergency switching off function (see annex A).

2 Normative references

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.

IEC 60050(441):1984, *International Electrotechnical Vocabulary (IEV) – Chapter 441: Switchgear, controlgear, fuses*
Amendment 1 (2000)

IEC 60068-2-1:1990, *Environmental testing – Part 2: Tests – Test A: Cold*
Amendment 1 (1993)
Amendment 2 (1994)

IEC 60068-2-2:1974, *Environmental testing – Part 2: Tests – Test B: Dry heat*
Amendment 1 (1993)
Amendment 2 (1994)

IEC 60068-2-6:1995, *Environmental testing – Part 2: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-11:1981, *Environmental testing – Part 2: Tests – Test Ka: Salt mist*