

# General-use snap switches



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# **Update No. 1**

## **C22.2 No. 111-10**

### **February 2012**

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The following revisions have been formally approved and are marked by a vertical line in the margin on the attached replacement pages:

|                |   |
|----------------|---|
| <b>Revised</b> | Copyright page, Preface, Clauses 5.1.1, 5.2.1, 5.5.3, 5.21.3, 5.24, 5.25.1, 5.26.1, 7.1.1, 7.3.2, and 8.2.4.2 and Annex A                             |
| <b>New</b>     | Clauses 2.8.1, 2.8.2, 2.18, 4.4.2.7, 4.4.2.8, 4.5A, 5.1.4, 5.2.12.1, 5.20.2, 5.21.1.1, 5.25.1.1, 5.28, 5.29, 7.1.5.1, 7.1.6.1, and 7.2.4 and Figure 6 |
| <b>Deleted</b> | None  |

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**Underwriters Laboratories Inc.  
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## **General-Use Snap Switches**

May 10, 2010

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**ANSI/UL 20-2012**

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## Preface

This is the harmonized CSA and UL Standard for General-Use Snap Switches. It is the fourth edition of CSA C22.2 No.111 and the thirteenth edition of UL 20. This edition of CSA C22.2 No. 111 supersedes the previous edition published in 2000.

This harmonized Standard was prepared by the Canadian Standards Association (CSA) and Underwriters Laboratories Inc. (UL). The efforts and support of NEMA (National Electrical Manufacturers Association), EFC (Electro-Federation of Canada), and the CANENA Technical Harmonization Committee are gratefully acknowledged.

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

This standard was reviewed by the CSA Integrated Committee on Wiring Devices for Household and General Use, under the jurisdiction of the CSA Technical Committee on Wiring Products and the CSA Strategic Steering Committee on Requirements for Electrical Safety, and has been formally approved by the CSA Technical Committee.

This standard has been approved by the American National Standards Institute (ANSI) as an American National Standard.

Where reference is made to a specific number of samples to be tested, the specified number shall be considered a minimum quantity.

*Note: Although the intended primary application of this standard is stated in its scope, it is important to note that it remains the responsibility of the users of the standard to judge its suitability for their particular purpose.*

### Level of Harmonization

This standard is published as an equivalent standard. An equivalent standard is a standard that is substantially the same in technical content, except as follows. Technical national differences are allowed for codes and governmental regulations and those recognized as being in accordance with NAFTA Article 905, for example because of fundamental, climatic, geographical, technological, or infrastructural factors, scientific justification, or the level of protection that the country considers appropriate. Presentation is word for word except for editorial changes.

### Interpretations

The interpretation by the standards development organization of an identical or equivalent standard is based on the literal text to determine compliance with the standard in accordance with the procedural rules of the standards development organization. If more than one interpretation of the literal text has been identified, a revision is to be proposed as soon as possible to each of the standards development organizations to more accurately reflect the intent.

### CSA Effective Date

The effective date for CSA International will be announced through *CSA Informs* or a CSA certification notice.

**UL Effective Date**

| As of February 17, 2012, all products Listed, Recognized, or Classified by UL must comply with the requirements in this Standard and is not part of the ANSI approved standard.

A UL effective date is one established by Underwriters Laboratories Inc.

## 1 Scope

1.1 The requirements of this Standard apply to manually operated, general-use snap switches for connection to copper (Cu) or copper-clad conductors used in accordance with the National Electrical Code(NEC), ANSI/NFPA 70, or the Canadian Electrical Code (CEC), Part I, and intended for connection to wiring systems recognized by the NEC or the CEC, Part I. In Canada, requirements for switches for connection to aluminum (Al) conductors used in accordance with the CEC, Part I, and intended for connection to wiring systems recognized by the CEC, Part I, are covered in Annex B.

1.2 This Standard applies to ac/dc rated switches for which the load ratings do not exceed 60 A at 250 V or less, 30 A at 251 V – 600 V, and 2 hp at 125 V – 600 V or less. This Standard also covers ac-only rated switches for which the load ratings do not exceed 30 A at 347 Vac or less.

1.3 This Standard applies to switches constructed to be installed readily in a flush device box or on an outlet-box cover and intended for connection to branch-circuit wiring.

1.4 This Standard applies to pendant and through-cord switches intended for field installation on flexible cord and provided with one “on” and one “off” position.

1.5 This Standard applies to switches intended for surface mounting and provided with a separable base and cover for connection to exposed wiring consisting of nonmetallic sheathed cable or open wiring on insulators (knob and tube).

1.6 This Standard applies to self-contained switches intended for flush mounting without a separate outlet box and for connection to branch-circuit wiring consisting of one or more non-metallic sheathed cables containing copper conductors.

1.7 This Standard applies to ac/dc fixture switches intended to be installed in fixtures to control incandescent lighting or fans for connection to branch-circuit wiring.

1.8 This Standard also applies to single-pole, momentary-contact door switches constructed to be installed readily in a special-purpose device box or on an outlet-box cover for connection to branch-circuit wiring.

1.9 This Standard does not apply to:

- a) Clock operated switches specified in the Standard for Clock-Operated Switches, UL 917, and CSA Standard C22.2 No. 177;
- b) Dimmer switches specified in the Standard for Solid-State Dimming Controls, UL 1472, and CSA Standard C22.2 No. 184.1;
- c) Industrial control equipment specified in the Standard for Industrial Control Equipment, UL 508, and CSA Standard C22.2 No. 14;
- d) Solid-state, single-phase motor speed controls specified in the Standard for Solid-State Fan Speed Controls, UL 1917, and CSA Standard C22.2 No. 156;
- e) Special-use and ac-only fixture switches specified in the Standard for Special-Use Switches, UL 1054, and CSA Standard C22.2 No. 55; and
- f) Switches for use in hazardous locations specified in the Standard for Switches for Use in Hazardous (Classified) Locations, UL 894, and CSA Standard C22.2 No. 159.