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NATIONAL STANDARD

ANSI/CAN/UL/ULC 33:2022

STANDARD FOR SAFETY

Heat Responsive Links for Fire-Protection Service

Approved American National Standard
ANSI

ANSI/UL 33-2022

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UL Standard for Safety for Heat Responsive Links for Fire-Protection Service, ANSI/CAN/UL/ULC 33

Ninth Edition, Dated June 21, 2021

Summary of Topics

This revision of ANSI/CAN/UL/ULC 33 dated October 31, 2022 includes editorial changes and the Tolerance for Operating Temperature Bath Test, 9.1, 10.1, 10.4 and Figure 11.1

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

The revised requirements are substantially in accordance with Proposal(s) on this subject dated August 5, 2022.

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Standard for Heat Responsive Links for Fire-Protection Service

The first, second, and third editions were titled "Fusible Links for Fire-Protection Service."

First Edition – November, 1968
Second Edition – July, 1973
Third Edition – March, 1980
Fourth Edition – June, 1982
Fifth Edition – October, 1987
Sixth Edition – October, 1993
Seventh Edition – March, 2003
Eighth Edition – March, 2010

Ninth Edition

June 21, 2021

This ANSI/CAN/UL/ULC Safety Standard consists of the Ninth Edition including revisions through October 31, 2022.

The most recent designation of ANSI/UL 33 as an American National Standard (ANSI) occurred on October 31, 2022. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, Preface or SCC Foreword.

This standard has been designated as a National Standard of Canada (NSC) on October 31, 2022.

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Preface

This is the Ninth Edition of the ANSI/CAN/UL/ULC 33, Standard for Heat Responsive Links for Fire-Protection Service.

UL is accredited by the American National Standards Institute (ANSI) and the Standards Council of Canada (SCC) as a Standards Development Organization (SDO).

This Standard has been developed in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization. ULC Standards is accredited by the Standards Council of Canada (SCC) as a Standards Development Organization (SDO).

Annex B, identified as normative, form a mandatory part of this standard.

Annex A, identified as informative, is for information purposes only.

This ANSI/CAN/UL/ULC 33 Standard is under continuous maintenance, whereby each revision is approved in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization. In the event that no revisions are issued for a period of four years from the date of publication, action to revise, reaffirm, or withdraw the standard shall be initiated.

In Canada, there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

This Joint American National Standard and National Standard of Canada is based on, and now supersedes, the Eighth Edition UL 33, Standard for Standard for Heat Responsive Links for Fire-Protection Service, and the First Edition ULC-S505, Standard for Fusible Links for Fire Protection Service.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at http://csds.ul.com.

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This Edition of the Standard has been formally approved by the UL Standards Technical Panel (STP) on Sprinkler Equipment for Fire Protection, STP 199.

This list represents the STP 199 membership when the final text in this standard was balloted. Since that time, changes in the membership may have occurred.

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This Standard is intended to be used for conformity assessment.

The intended primary application of this standard is stated in its scope. It is important to note that it remains the responsibility of the user of the standard to judge its suitability for this particular application.

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INTRODUCTION

1 Scope

1.1 These requirements cover heat responsive links used for fire-protection service. These links consist of devices intended for installation under load conditions such as for use with automatic fire suppression systems; or automatic closure devices for doors, windows, dampers or smoke relief vents.

1.2 Heat responsive links are categorized by temperature rating, type of coating or plating, minimum and maximum design load, and other factors which may have a bearing on their intended use.

2 Units of Measurement

2.1 Where values of measurement are specified in both SI and U.S. Customary units, it is the responsibility of the user of this standard to determine the unit of measurement appropriate for the user's needs.

3 Components

3.1 Except as indicated in 3.2, a component of a product covered by this standard shall comply with the requirements for that component.

3.2 A component is not required to comply with a specific requirement that:

a) Involves a feature or characteristic not required in the application of the component in the product covered by this standard, or

b) Is superseded by a requirement in this standard.

3.3 A component shall be used in accordance with its rating established for the intended conditions of use.

3.4 Specific components are incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions.

4 Normative References

4.1 Any undated reference to a code or standard appearing in the requirements of this Standard shall be interpreted as referring to the latest edition of that code or standard.

4.2 The following standard is referenced in this standard, and portions of this referenced standard may be essential for compliance:

American Society for Testing and Materials (ASTM) Standards

ASTM B117, *Standard Practice for Operating Salt Spray (Fog) Apparatus*

5 Glossary

5.1 For the purpose of this standard, the following definitions describe various types of heat responsive links.

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