



UL 2333

STANDARD FOR SAFETY Infrared Thermometers

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UL Standard for Safety for Infrared Thermometers, UL 2333

Third Edition, Dated May 31, 2016

Summary of Topics

This Third Edition of ANSI/UL 2333 has been issued to remove the reference to the withdrawal date of UL 873 and to address universal upkeep of UL Standards for Safety. Any changes are considered to be non-substantive and not subject to UL's STP process.

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MAY 31, 2016

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UL 2333

Standard for Infrared Thermometers

First Edition – May, 2001
Second Edition – March, 2008

Third Edition

May 31, 2016

This ANSI/UL Standard for Safety consists of the Third edition.

The most recent designation of ANSI/UL 2333 as an American National Standard (ANSI) occurred on July 8, 2014. ANSI approval for a standard does not include the Cover Page, Transmittal Pages and Title Page.

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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CONTENTS

INTRODUCTION

1 Scope	5
2 Devices	5
3 Reference publications	5
4 Units of Measurement	6
5 Definitions	6
6 Components	6

CONSTRUCTION

7 Enclosures and Lenses	7
8 Operating Mechanism	7
9 Accessories	8
10 Batteries	8
11 Lasers	8
12 User Information	9
13 Power Supplies	9

PERFORMANCE

14 General	9
15 Initial Accuracy Verification Test	9
16 Ambient Temperature – Accuracy Verification Tests	10
16.1 General	10
16.2 Extended exposure conditioning	10
16.3 Extreme ambient conditioning	10
17 Ambient Moisture – Accuracy Verification Test	11
18 Resistance to Electrostatic and Electromagnetic Noise – Accuracy Verification Tests	11
18.1 General	11
18.2 Electrostatic discharge immunity	11
18.3 Radiated electromagnetic field immunity	12
19 Mechanical Abuse – Accuracy Verification Test	12

MARKING

20 General	13
------------------	----

INSTRUCTIONS

21 Use and Care Instructions	14
------------------------------------	----

MANUFACTURING AND PRODUCTION TESTS

22 General	16
------------------	----

APPENDIX A

Standards for Components	A1
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APPENDIX B

B1 Use and Care Instruction Manual Example	B1
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INTRODUCTION

1 Scope

1.1 These requirements cover portable, battery operated infrared thermometers and accessories affecting accuracy intended for food safety.

1.2 These requirements do not cover temperature indicating devices intended for non-food uses.

2 Devices

2.1 The devices covered by this standard are evaluated for their intended use as SCREENING TOOLS only. As such, they are not intended to take the place of or supersede the readings of food contact thermometers used in accordance with the FDA Food Code or the related requirements of Authorities Having Jurisdiction.

2.2 The devices indicate surface temperature at a minimum accuracy of $\pm 2.2^{\circ}\text{C}$ (4°F) for food product surfaces at 60°C (140°F) and 5°C (41°F). This accuracy is determined at an intended use range of 2.54 cm (1 in) to 30.5 cm (1 ft) with a surface area larger than the area of measurement of the unit in a range of ambient air temperatures.

2.3 Because external environmental use conditions, thermal shock, cleanliness of optics, mechanical abuse and other use factors influence the accuracy of the devices, the operator needs to adhere to all manufacturer's instructions for their use and care.

3 Reference publications

3.1 Equipment shall comply with the applicable requirements of the following publications:

- a) Food and Drug Administration (FDA) Food Code, 1999;
- b) Code of Federal Regulations (CFR), Title 21, Chapter I, Subchapter J, 1999;
- c) International Electrotechnical Commission 1000-4-2 (IEC 1000-4-2): Electromagnetic Compatibility (EMC) Part 4; Testing and Measuring Techniques – Section 2: Electrostatic Discharge Immunity Test – Basic EMC Publication (1995);
- d) International Electrotechnical Commission 1000-4-3 (IEC 1000-4-3): Electromagnetic Compatibility (EMC) Part 4; Testing and Measurement Techniques – Section 3: Radiated, Radio Frequency, Electromagnetic Field Immunity Test (1995);
- e) Standard for Marking and Labeling Systems, UL 969; and
- f) Standard for Class 2 Power Units, UL 1310

3.2 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.