



UL 2333

STANDARD FOR SAFETY

Infrared Thermometers

UL Standard for Safety for Infrared Thermometers, UL 2333

Third Edition, Dated May 31, 2016

Summary of Topics

This revision of ANSI/UL 2333 dated August 7, 2019 is being issued to update the title page to reflect the most recent designation as a Reaffirmed American National Standard (ANS). No technical changes have been made.

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 requirements are substantially in accordance with Proposal(s) on this subject dated May 17, 2019.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical photocopying, recording, or otherwise without prior permission of UL.

UL provides this Standard "as is" without warranty of any kind, either expressed or implied, including but not limited to, the implied warranties of merchantability or fitness for any purpose.

In no event will UL be liable for any special, incidental, consequential, indirect or similar damages, including loss of profits, lost savings, loss of data, or any other damages arising out of the use of or the inability to use this Standard, even if UL or an authorized UL representative has been advised of the possibility of such damage. In no event shall UL's liability for any damage ever exceed the price paid for this Standard, regardless of the form of the claim.

Users of the electronic versions of UL's Standards for Safety agree to defend, indemnify, and hold UL harmless from and against any loss, expense, liability, damage, claim, or judgment (including reasonable attorney's fees) resulting from any error or deviation introduced while purchaser is storing an electronic Standard on the purchaser's computer system.

No Text on This Page

MAY 31, 2016
(Title Page Reprinted: August 7, 2019)



ANSI/UL 2333-2003 (R2019)

1

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 including revisions through August 7, 2019.

The most recent designation of ANSI/UL 2333 as a Reaffirmed American National Standard (ANS) occurred on August 7, 2019. 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 <https://csds.ul.com>.

UL's Standards for Safety are copyrighted by UL. Neither a printed nor electronic copy of a Standard should be altered in any way. All of UL's Standards and all copyrights, ownerships, and rights regarding those Standards shall remain the sole and exclusive property of UL.

COPYRIGHT © 2019 UNDERWRITERS LABORATORIES INC.

No Text on This Page

CONTENTS

INTRODUCTION

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

CONSTRUCTION

7	Enclosures and Lenses	6
8	Operating Mechanism	7
9	Accessories	7
10	Batteries	7
11	Lasers	8
12	User Information	8
13	Power Supplies	8

PERFORMANCE

14	General	8
15	Initial Accuracy Verification Test	8
16	Ambient Temperature – Accuracy Verification Tests	9
16.1	General	9
16.2	Extended exposure conditioning	9
16.3	Extreme ambient conditioning	9
17	Ambient Moisture – Accuracy Verification Test	9
18	Resistance to Electrostatic and Electromagnetic Noise – Accuracy Verification Tests	10
18.1	General	10
18.2	Electrostatic discharge immunity	10
18.3	Radiated electromagnetic field immunity	10
19	Mechanical Abuse – Accuracy Verification Test	10

MARKING

20	General	11
----	---------------	----

INSTRUCTIONS

21	Use and Care Instructions	12
----	---------------------------------	----

MANUFACTURING AND PRODUCTION TESTS

22	General	14
----	---------------	----

APPENDIX A

Standards for Components	15
--------------------------------	----

APPENDIX B

B1 Use and Care Instruction Manual Example	16
--	----