



# UL 1425

## STANDARD FOR SAFETY

Cables for Non-Power-Limited Fire-Alarm Circuits

This is a preview. [Click here to purchase the full publication.](#)

UL Standard for Safety for Cables for Non-Power-Limited Fire-Alarm Circuits, UL 1425

Third Edition, Dated January 26, 2015

### **Summary of Topics**

***This revision of ANSI/UL 1425 dated January 14, 2022 includes the introduction of optional suffixes HF, LSHF and ST1 and deletion of limited combustible; [25.1](#), Section [38](#), [41.1\(m\)](#)***

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 November 5, 2021.

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

**JANUARY 26, 2015**  
(Title Page Reprinted: January 14, 2022)



**ANSI/UL 1425-2022**

1

**UL 1425**

**Standard for Cables for Non-Power-Limited Fire-Alarm Circuits**

First Edition – January, 1998  
Second Edition – October, 2005

**Third Edition**

**January 26, 2015**

This ANSI/UL Standard for Safety consists of the Third Edition including revisions through January 14, 2022.

The most recent designation of ANSI/UL 1425 as an American National Standard (ANSI) occurred on January 14, 2022. 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 © 2022 UNDERWRITERS LABORATORIES INC.**

This is a preview. [Click here to purchase the full publication.](#)

No Text on This Page

**CONTENTS**

**INTRODUCTION**

1 Scope .....5  
 2 Units of Measurement .....6  
 3 References .....6

**CONSTRUCTION**

4 Materials .....7  
 5 Circuit and Grounding Conductors .....7  
 6 Metal Coating of Conductors .....9  
 7 Insulation .....9  
     7.1 General .....9  
     7.2 Conductors other than NEC wires .....9  
     7.3 NEC wires .....13  
 8 Electromagnetic Shields .....14  
 9 Optical-Fiber Members .....15  
 10 Binders .....16  
 11 Core Wrap .....16  
 12 Assembly of the Cable .....16  
 13 Overall Cable Jacket .....16  
     13.1 Material, application, and thicknesses .....16  
     13.2 Thicker jacket .....18  
     13.3 Cable temperature rating .....18  
 14 Metal Covering (Armor) .....19  
     14.1 General .....19  
     14.2 Smooth metal sheath .....19  
     14.3 Welded and corrugated metal sheath .....20  
     14.4 Extruded and corrugated metal sheath .....20  
     14.5 Interlocked armor .....21  
 15 Jacket over Armor .....22

**PERFORMANCE**

16 Continuity Test of Conductors and Shields .....22  
 17 D-C Resistance Test of Conductors .....23  
     17.1 Requirements .....23  
     17.2 General method .....24  
     17.3 Kelvin-bridge referee method .....26  
 18 Heat Shock Test .....27  
 19 Deformation Test .....27  
 20 Cold Bend Test of the Insulation .....28  
 21 Cold Bend Test of the Complete Cable .....29  
 22 Smoke and Flame Testing of NPLFP Cables .....30  
 23 Flame Testing of Riser Cables .....30  
 24 Alternative Vertical-Tray Flame Tests of General-Purpose Cables .....31  
     24.1 Choice of test by the manufacturer .....31  
     24.2 Changes in construction .....31  
     24.3 UL test .....31  
     24.4 FT4/IEEE 1202 test .....32  
 25 Sunlight-Resistance Test .....32  
 26 Alternative Spark and Dielectric Voltage-Withstand Tests .....32  
     26.1 Choice of test by the manufacturer .....32

This is a preview. [Click here to purchase the full publication.](#)