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# UL 48

## STANDARD FOR SAFETY

### Electric Signs

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UL Standard for Safety for Electric Signs, UL 48

Fifteenth Edition, Dated September 2, 2011

### **Summary of Topics**

***These revisions to ANSI/UL 48 dated March 16, 2021 include the following changes in requirements:***

***Switch not serving as sign disconnect; [4.3.4.1](#), [7.1.4](#), [7.1.7](#), [7.1.8](#) and [8.1.8](#)***

***Accessibility of through wiring; [4.2.2.1.6](#)***

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The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated December 4, 2020.

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1

## **UL 48**

### **Standard for Electric Signs**

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**September 2, 2011**

This ANSI/UL Standard for Safety consists of the Fifteenth Edition including revisions through March 16, 2021.

The most recent designation of ANSI/UL 48 as an American National Standard (ANSI) occurred on February 19, 2021. 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>.

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No Text on This Page

## CONTENTS

1	Scope .....	5
2	Glossary .....	5
3	General .....	11
	3.1 Components .....	11
	3.2 Reference publications .....	11
	3.3 Units of measurement .....	11
4	Construction .....	12
	4.1 Mechanical .....	12
	4.2 Electrical .....	25
	4.3 Devices and components .....	50
	4.4 Supplementary requirements .....	60
5	Performance .....	75
	5.1 General .....	75
	5.2 Temperature .....	75
	5.3 Dielectric .....	79
	5.4 Strain relief .....	79
	5.5 Stability .....	80
	5.6 Mounting .....	80
	5.7 Gasket aging .....	80
	5.8 Gasket adhesion .....	80
	5.9 Exclusion of water .....	81
	5.10 Bond impedance .....	81
	5.11 Accessibility barrier dielectric .....	82
	5.12 Glass fragmentation test .....	82
	5.12A Glass impact test .....	82
	5.13 Lamp containment barrier melt-through test .....	83
	5.14 Polymeric ground/bond strength test .....	83
	5.15 Straight accessibility probe test .....	83
	5.16 Mold stress relief distortion test .....	83
	5.17 Torque, bending moment and conduit pullout tests .....	84
	5.18 Conduit knockout and twistout test .....	84
	5.19 Leakage current .....	85
	5.20 Self-threading screw torque test .....	87
6	Manufacturing and Production Line Testing – Production Line Grounding Continuity .....	87
7	Marking .....	87
	7.1 General .....	87
	7.2 All signs .....	88
	7.3 Illumination specific .....	89
	7.4 Portable/stationary/mobile .....	89
	7.5 Permanently connected signs .....	90
	7.6 Outline lighting .....	90
	7.7 Section signs .....	90
	7.8 Neon signs for use in dwellings .....	90
	7.9 Photovoltaic signs .....	91
8	Instructions .....	91
	8.1 General .....	91
	8.2 Section signs .....	91
	8.3 Skeleton neon tubing .....	92
	8.4 Awning signs .....	92
	8.5 Cord-connected .....	92
	8.6 Photovoltaic signs .....	92

## APPENDIX A

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

Standards for Components .....94

## 1 Scope

1.1 These requirements cover all electric signs, art forms and outline lighting for use in accordance with the National Electrical Code, NFPA 70.

1.2 Electric signs include all signs (regardless of voltage) that are electrically operated and/or electrically illuminated, including but not limited to the following methods of illumination: incandescent, fluorescent, high intensity discharge (HID), electric discharge tubing including neon tubing, light-emitting diode (LED), skeleton neon tubing, cold-cathode lamps, and electroluminescence. Unless otherwise noted the term "sign" includes signs, outline lighting, art forms, and skeleton neon tubing.

1.3 Electric signs covered by these requirements also include, but are not limited to, awning signs, trailer-mounted signs, electrically or mechanically animated signs, signs supplied by photovoltaic systems and other independent power sources, changing message signs, including scrolling, flipper, tri-view, liquid crystal display (LCD), and light-emitting diode (LED) type and other electrically operated signs that are not necessarily illuminated.

1.4 These requirements do not cover the following:

- a) Illuminated clocks operating at 600 V or less; refer to the Standard for Household Electric Clocks, UL 826 or for commercial use clocks to the Standard for Time-Indicating and -Recording Appliances, UL 863;
- b) Exit signs; refer to the Standard for Emergency Lighting and Power Equipment, UL 924;
- c) The trailer of a trailer mounted sign;
- d) Luminaires mounted to function as outline lighting; refer to the Standard for Luminaires, UL 1598;
- e) Luminaires mounted within an Awning Sign; refer to Standard for Luminaires, UL 1598;
- f) Signs that do not use electricity;
- g) Luminaires intended for billboard illumination; refer to Standard for Luminaires, UL 1598;
- h) Fiber optics or Fiber optic Illuminators;
- i) Signs for use in hazardous (classified) locations as defined in the National Electrical Code, NFPA 70.

## 2 Glossary

2.1 For the purpose of this standard the following definitions apply.

2.2 ACCESSIBILITY BARRIER – A material provided to limit access to the following in items (a) – (d) below. If all or part of the barrier also serves as an enclosure, see Enclosure, [2.21](#).

- a) Uninsulated live parts,
- b) Dead metal parts that are at a risk of being energized and are not grounded, and
- c) Live parts insulated with materials not intended to be subject to user contact, or
- d) Moving parts that present a risk of injury.

2.3 ACCESSIBLE PART – See Part, Accessible, [2.44](#).

- 2.4 ADHESIVE – Bonding material (i. e. epoxy, paste, cement) placed between parts to be fastened together that adheres to each part, and remains the securement medium between the parts.
- 2.5 AWNING SIGN – A fixed structure with flexible or rigid sign face material extending over a window, door, patio, walkway, etc. providing protection from the weather and integral illumination of the signage.
- 2.6 BARRIER – See Accessibility Barrier, [2.2](#), Heat Barrier [2.28](#), Insulating Barrier, [2.31](#), and Water Shield, [2.76](#).
- 2.7 BONDING – Permanent joining of metallic parts to form an electrical conductivity path that provides electrical continuity between dead metal parts and the capacity to conduct any fault current that may occur.
- 2.8 CANOPY – A device provided with a sign, or separately, that is used to cover an outlet box. A canopy is capable of being secured to an outlet box or to a ceiling.
- 2.9 CANOPY SIGN – A sign that is supported and suspended from an outlet box by a chain, stem, or cable.
- 2.10 CLASS 2 CIRCUIT – Wiring, conductors, and components connected only to a Class 2 supply source. See Class 2 Supply Source, [2.11](#).
- 2.11 CLASS 2 SUPPLY SOURCE – An electrical source such as a transformer, power supply, or battery having an open-circuit voltage that is less than 30 Vrms (42.4 Vpeak) or 60 Vdc and having limited energy available in the circuit under load conditions, including short circuit and extremely low resistance as specified by the current and VA limitations of the Article 725 of the National Electrical Code, NFPA 70.
- 2.12 COLD-CATHODE LAMP – An electric-discharge lamp that is characterized by an arc discharge, and in which the cathode drop is relatively high and the current density at the cathodes is relatively low.
- 2.13 DAMP LOCATION – See Location of Use Designation, [2.36](#).
- 2.14 DECORATIVE PART – A part which, if removed, does not result in the product no longer complying with the requirements.
- 2.15 DRY LOCATION – See Location of Use Designation, [2.36](#).
- 2.16 ELECTRIC DISCHARGE LIGHTING – System of illumination whereby current is passed through a gas medium. This includes neon tubing, cold cathode lamps, fluorescent, and high intensity discharge (HID) types of illumination.
- 2.17 ELECTRICAL EQUIPMENT – A general term including fittings, boxes, wireways, switches, receptacles, panelboards, appliances, luminaries (fixtures), and the like used as a part of an electric sign.
- 2.18 ELECTRODE RECEPTACLE – A contact device intended to accept electrodes of neon tubing. An individual receptacle may or may not be provided with an integral outer enclosure of metal or other material.
- 2.19 ELECTRODE SPLICE ENCLOSURE – Component specifically intended to enclose a splice between a GTO cable conductor and the leads of a neon tube electrode.
- 2.20 ELECTROLUMINESCENT – The emission of light from phosphor coatings excited by an electrostatic (capacitive) field.