



UL 753

STANDARD FOR SAFETY

Alarm Accessories for Automatic Water-Supply
Control Valves for Fire Protection Service

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UL Standard for Safety for Alarm Accessories for Automatic Water-Supply Control Valves for Fire Protection Service, UL 753

Eighth Edition, Dated October 25, 2013

Summary of Topics

This new edition of UL 753 has been published to reflect the first time ANSI approval of the Standard.

The requirements are substantially in accordance with Proposal(s) on this subject dated August 9, 2013.

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UL 753



ANSI/UL 753-2013

Standard for Alarm Accessories for Automatic Water-Supply Control

Valves for Fire-Protection Service

First Edition – November, 1967

Second Edition – July, 1971

Third Edition – March, 1976

Fourth Edition – October, 1982

Fifth Edition – August, 1989

Sixth Edition – July, 1995

Seventh Edition – May, 2004

Eighth Edition

October 25, 2013

This ANSI/UL Standard for Safety consists of the Eighth Edition.

The most recent designation of ANSI/UL 753 as an American National Standard (ANSI) occurred on October 25, 2013. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, or effective date information.

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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INTRODUCTION

1 Scope

1.1 These requirements cover alarm accessories for automatic water-supply control valves for use in automatic sprinkler equipment for fire protection service. Accessories may include water motors and gongs, pressure-operated switches, and other electrical and nonelectrical attachments, components, or units commonly used with alarm, dry-pipe and pre-action valves.

1.2 Requirements for the installation and use of alarm accessories with automatic water-supply control valves are included in the Standard for Installation of Sprinkler Systems, NFPA 13.

1.3 The electrical alarm accessories for automatic water-supply control valves are intended for fire-protective signaling use in ordinary locations in accordance with the National Electrical Code, ANSI/NFPA 70.

2 Components

2.1 Except as indicated in 2.2, a component of a product covered by this standard shall comply with the requirements for that component. See Appendix A for a list of standards covering components generally used in the products covered by this standard.

2.2 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.

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

2.4 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.

3 Units of Measurement

3.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

4 Undated 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.

5 Glossary

5.1 For the purpose of this standard, the following definitions apply.

5.2 HIGH-VOLTAGE ELECTRIC CIRCUIT— A circuit involving a potential of not more than 600 volts and having circuit characteristics in excess of those of a low-voltage (or Class 2) circuit (or power limited circuit).

5.3 LOW-VOLTAGE ELECTRIC CIRCUIT— A circuit involving a potential of not more than 30 volts rms alternating current (ac) [42.4 volts peak or direct current (dc)] and supplied by:

- a) A Class 2 transformer; or by a battery, by a battery and fixed impedance, or by a transformer and fixed impedance, each of which, as a unit, complies with all the performance requirements for a Class 2 transformer; or
- b) Is limited to a maximum of 100 volt-amperes (va).

A circuit derived from a source of supply classified as high-voltage circuit, using resistance in series with the supply circuit as a means of limiting the voltage and current, is not considered to be a low-voltage or an isolated limited secondary circuit.

5.4 SET POINT — A predetermined value to which a control or interlock is adjusted and at which it performs its intended function.

CONSTRUCTION

6 Adjustment and Stops

6.1 The set point of a pressure actuated control shall be indicated on the control in a recognizable and legible manner.

6.2 If a control is nonadjustable following factory calibration, it may be marked with a single set point.

6.3 If a control is adjustable in the field, the set points over the range of allowable field adjustment shall be indicated on the control.

6.4 An adjustable stop employed for limiting a set point shall not be used for other adjustments. It shall be firmly secured by a means provided solely for that purpose and in a manner so that the maximum intended setting cannot be increased except by the use of tools or by deliberate bending or removal of some part. A nut, screw, or the like, used for this purpose shall be provided with an integral lock washer, or the equivalent. A part used for support of the adjustment means shall have strength sufficient to resist unintentional bending.

6.5 If it is evident that a set point will be altered by resetting or removing the stop, or if directions are included on the control for altering the set point, a statement shall appear on the dial, scale, or stop, or directly adjacent thereto, or on the outside (not inside) of the cover. This statement shall be to the effect that the setting is a safety stop and is not to be altered to permit a higher or less safe operating point, for example, SAFETY STOP – DO NOT ALTER.

7 Calibration Means

7.1 Means provided for factory calibration of pressure actuated controls shall be factory secured against disturbances. The means for calibration, if accessible or apparent, shall be modified, guarded, or sealed to effectively prevent manipulation by hand or by commonly available tools subsequent to the factory calibration as specified in 8.2.

7.2 Sealing means used shall not permit evidence of tampering to be destroyed by replacement with commonly available material.

7.3 A calibration means considered to be not accessible or apparent is one not exposed to manipulation by commonly available tools, as specified in 8.2, or one not readily displaced. The complete concealment of conventional tool engaging means in a screw, such as a slot or recessed head, by the use of solder or brazing material is acceptable for preventing manipulation if the calibration means cannot be changed by gripping with commonly available tools, and if engagement or manipulation is prevented at all other locations.

8 Tampering Protection

8.1 A door, cover, panel, or mounting means of a pressure actuated device, that permits access to internal components that may be subject to tampering, shall be provided with means for supervision.

8.2 The cover of a pressure actuated device shall be provided with a tamper switch, unless the cover cannot be removed by using commonly available tools, such as hex-head wrenches, slotted or cross-recessed screwdrivers, or pliers.