UL 2075

STANDARD FOR SAFETY

Gas and Vapor Detectors and Sensors

UL Standard for Safety for Gas and Vapor Detectors and Sensors, UL 2075

Second Edition, Dated March 5, 2013

Summary of Topics

This revision to ANSI/UL 2075 dated August 31, 2021 was issued to incorporate the following changes:

– Scope revisions; 1.1, 1.1A, 1.1B, 1.2, 1.4, 3.11A and 15.1

– One Year Sensor Stability Test for Gas Sensors; 33.4

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 new and revised requirements are substantially in accordance with Proposal(s) on this subject dated April 9, 2021 and July 9, 2021.

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ANSI/UL 2075-2021

UL 2075

Standard for Gas and Vapor Detectors and Sensors

First Edition – November, 2004

Second Edition

March 5, 2013

This ANSI/UL Standard for Safety consists of the Second edition including revisions through August 31, 2021.

The most recent designation of ANSI/UL 2075 as an American National Standard (ANSI) occurred on August 31, 2021. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page. Any other portions of this ANSI/UL standard that were not processed in accordance with ANSI/UL requirements are noted at the beginning of the impacted sections.

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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INTRODUCTION

1 Scope

1.1 This standard applies to fixed, portable and transportable toxic and combustible gas and vapor detectors and sensors intended for use in ordinary (non-hazardous) locations for use in indoor, unconditioned spaces, or outdoor locations.

1.1A This standard covers gas and vapor detectors and sensors that are factory-calibrated and sealed with no means for recalibration or field maintenance by a qualified service personnel including:

a) A toxic gas sensor and/or detector with detection and/or alarm limits within the applicable Time Weighted Average (TWA) concentration, as specified by the National Institute for Occupational Safety and Health, or

b) A combustible gas detector with detection and/or alarm limits at or below 25% of the Lower of the Lower Explosive Limit (LEL),

c) A combustible gas sensor up to and including the LEL.

1.1B A gas detector and/or sensor and/or vapor detector, as covered by these requirements, consists of an assembly of electrical components coupled with a sensing means inside a chamber or by separate components to detect toxic and/or combustible gases or vapors and in accordance with National Electrical Code, NFPA 70, the Fire Alarm and Signaling Code, NFPA 72, and Fuel Gases and Warning Equipment, NFPA 715. The detector includes provision for the connection to a source of power and signaling circuits.

1.2 These requirements cover the following types of detectors:

a) Detectors intended for monitoring the environment and detectors intended for open area protection and for connection to a compatible power supply or control unit for operation as part of gas detection or emergency signaling systems;

b) Detectors intended solely for control of ventilation or shut off devices such as fans or control valves;

c) Detectors intended for both the above applications;

d) Sensors and sensing circuits intended for use with or in gas detectors, alarms or gas detection circuits within fuel cell systems;

e) Portable gas detectors;

f) Multi-gas gas detectors;

g) Multi-gas sensors.

1.3 These requirements also cover all remote accessories that are intended to be connected to a gas or vapor detector and/or sensor.

1.4 This standard does not cover the following:

a) Control units to which the detectors are intended to be connected that are covered by the Standard for Control Units for Fire-Protective Signaling Systems, UL 864;

b) Control units to which the detectors are intended to be connected that are covered by the Standard for General Purpose Signaling Devices and Systems, UL 2017;