



NYC Department of Buildings
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Report of Materials and Equipment Acceptance Division

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use subject to the terms and conditions contained herein.

MEA 59-02-E Vol.2

Manufacturer:	Kidde-Fenwal, Inc., 400 Main Street, Ashland , MA 01721
Trade Name(s):	Kidde
Product:	Orion XT High -Sensitivity Smoke Detection System
Pertinent Code Section(s):	Subchapter 17, Article 6, Sections 27-978 through 27-981; Reference Standard RS-17
Prescribed Test(s):	UL Standards 268 and 268 A
Laboratory:	Underwriters Laboratories, Inc.
Test Report(s):	UL Reports: UL S1064, Project 00NK29213, Volume 19, Section 1, Issued June 28, 2001, Revised March 3, 2006.

Description – The ORION XT High-Sensitivity Smoke Detection (HSSD). System is intended for early warning smoke detection applications in such as telecommunications facilities, data processing facilities, museums and warehouses. For use with compatible approved fire alarm controls. One ORION XT HSSD system, when connected to a pipe network designed using “SNIFF” software, provides coverage for an area up to 20,000 sq. feet.

The ORION XT HSSD system consists of: an air sampling pipe network, a laser-based high-sensitivity detector (with a dynamic sensitivity range of 0.00075% to 0.3%/ft obscuration) and a high-efficiency fan. The self-contained power supply provides 24 VDC power for one detector from 120/240 VAC. The Multi-Zone Power Supply provides 24 VDC power for up to eight detectors from 120/240 VDC.

The optional user interface Display Module provides visual indication of the detector’s alarm and trouble status on an LCD screen. It can be mounted either within the detector or remotely and communicates via an RS-485 connection.

A local PC station running the ORION Configuration Software (OCS), UL Listed for Electronic Data Processing (EDP) equipment, connected to the ORION XT via an RS-232 port and is used to configure and monitor the system.

The Intelligent Interface Module (IIM) provides a communication link to a network of up to 127 ORION XT detectors and reports alarms, troubles, etc. Their status changes can be reported to either a local PC monitoring station UL Listed for Electronic Data Processing (EDP) equipment via an RS-232 port, a remote PC monitoring station UL Listed for Electronic Data Processing (EDP) equipment via a standard voice telephone line utilizing its on-board modem, or to an ARIES Control Panel via an RS-232 port. The PC monitoring station shall be running the OCS software and a remote station must also be equipped with a modem.

The PEGAsys Addressable Loop Module (PALM) provides an addressable interface for an ORION XT to connect to the PEGAsys or ARIES Control Panel, via a two-wire communication loop.

The High -Sensitivity Smoke Detection system is UL Listed as follows.

Model/ Part No.	Description
297101	Detector Assembly
297102	Display Module
297103	PEGAsys Addressable Loop Module
297104	Self-Contained Power Supply
297106	Multi-Zone Power Supply
297107	Multi-Zone Power Supply Enclosure
77-297114-002	ORION XT IIM with Modem
77-297114-001	ORION XT IIM without Modem

Pursuant to "Promulgation of the Rules relating to Materials and Equipment Application Procedures" dated November 5, 1992, the Bureau of Fire Prevention has no objections letter dated June 14, 2006, F.P. Index #0605062A.

Terms and Conditions: The above units are accepted on conditions that:

1. All uses, configurations, arrangements, and functions, application and installations shall comply with all applicable provisions of New York City Building Code, specifically Subchapter 17, and Reference Standard 13.
2. Alarm silence, alarm resetting, and/or any other control of the detection system shall be in accordance with the requirements of MEA report 59-02-E, as follows:

- a) The unit shall not be installed as a primary detector unit in areas for which the Building Code specially calls for the installation of an ionization and photoelectric smoke detector.
 - b) Each unit shall be viewed and limited to the operation of a single detector only.
 - c) The ORION XT shall be installed with its own fuse cut-out.
 - d) When installed in a building with a Fire Command Station, all troubles and fire alarms from the ORION XT unit shall be reported to the main fire command station and the signal shall latch on at the main fire panel until it is manually reset.
 - e) Every plan and permit application for installation shall be accompanied with a piping layout and network calculation, to verify that the design meets the manufacturer's recommendations with regards to the minimum suction pressure of 0.05 inches and the maximum period of 180 seconds transmit time from the furthest sampling port.
 - f) In order to prevent building moisture and condensation, the sampling tubes shall be installed with a pitch of 1/16 of an inch per linear foot away from the ORION XT unit. Flexible piping or tubing may not be utilized in this installation.
 - g) The system must be configured with an LCD display module.
3. Installation of the above models shall be in compliance with Underwriters Laboratories Inc.'s listing requirements and limitations
 4. Installation of all above-referenced models shall be in accordance with the manufacturer's recommendations, maintenance requirements and limitations.
 5. All shipments and deliveries of such equipment shall be provided with a metal tag, suitably placed, certifying that the equipment shipped or delivered is equivalent to that tested and accepted for use, as provided for in Section 37-131 of the Building Code.

Final Acceptance July 28, 2006
Examined by Donald [Signature]