TECHNICAL DATA

FIRECYCLE® MULTI-CYCLE OH DETECTOR MODEL C

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
Telephone: 269-945-9501 Technical Services 877-384-5464 Fax: 269-945-4495 Email: techsvcs@vikingcorp.com

1. DESCRIPTION

The Viking Firecycle® Multi-Cycle OH Detector is a heat sensitive, normally closed, electrical detector, which operates at a fixed temperature. It is rate compensating and features automatic recycling. The detection units are connected with fire-resistant detector cable in series from and to the Firecycle® III Multi-Cycle Control Panel. When a detector is heated to the temperature set point, a mechanical switch opens and breaks the series circuit interrupting the flow of current. When the temperature drops below the set point, the circuit is re-established.

WARNING: Cancer and Reproductive Harm- www.P65Warnings.ca.gov

FEATURES

1. The detector trip temperature is factory set and is not adjustable in the field.
2. At 300°F (149°C) sustained ambient temperature, the heat exposure dot will turn black, indicating possible detector damage.
3. Maximum area coverage per detector is 2,500 square feet (232.3 sq. m) 50’ x 50’ (15.2 m x 15.2 m) spacing under optimum conditions. Refer to specific installation instructions for Firecycle® III Multi-Cycle OH. Refer to Detector Spacing Table 2.

2. LISTINGS AND APPROVALS:

UL Listed - VLTR
cUL Listed

3. TECHNICAL DATA

Specifications:

Weight: 4 oz. (.11 kg)
Electrical Rating: 5 Amps at 125 VAC 0.5 AMP at 24-125 VDC
Resistance drop across closed detector: 0.03 Ohms
Conduit Box: 4” Octagonal Outlet Box

Material Standards:

Heat Probe: Stainless Steel
Name Plate: Aluminium
Heat exposure dot: Heat activated Wax

Ordering Information:

Fenwal P/N - 06-L01202-001
Available since 2002
Part Number - Refer to Table 1

Viking Technical Data may be found on The Viking Corporation’s Web site at http://www.vikinggroupinc.com. The Web site may include a more recent edition of this Technical Data Page.

Table 1 - Part Numbers	
Flush Mounted Detector	
Part No.	**Description**
11723	140° (60°) Detector Package
11724	160° (71°) Detector Package
11725	190° (88°) Detector Package
11726	225° (107°) Detector Package
Surface Mounted Detector	
Part No.	**Description**
11727	140° (60°) Detector Package
11728	160° (71°) Detector Package
11729	190° (88°) Detector Package
11730	225° (107°) Detector Package

Table 2 - Detector Spacing			
Temperature	**Color Coding**	**UL**	**cUL**
140° (60°C)	Black	50' x 50'	50' x 50'
160° (71°C)	Black	25' x 25'	25' x 25'
190° (88°C)	White	50' x 50'	50' x 50'
225° (107°C)	White	25' x 25'	50' x 50'

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4. INSTALLATION

CAUTION: FIRECYCLE® III MULTI-CYCLE OH DETECTORS ARE NOT TO BE INSTALLED AS REPLACEMENT DETECTORS ON FIRECYCLE® III MULTI-CYCLE OR FIRECYCLE® II SYSTEMS.

1. The detector must be mounted as shown in Figures 1 or 2.
2. The temperature rating of the detector must be lower than the temperature rating of adjacent sprinklers.
3. For installation of detectors, refer to NFPA 72 for spot type heat detectors. Do not exceed recommended spacing between detectors. Refer to Spacing Chart on page 1. The minimum spacing from any wall or partition must not exceed one-half the maximum spacing allowed by NFPA 72 for spot type heat detectors.
4. A minimum of two detectors should be installed in every compartment for Firecycle® III installations. This reduces the possibility of short cycling caused from direct wetting of actuated detectors by operating sprinklers. Exceptions to this requirement include:
   a. Light and Ordinary Hazard occupancy compartments (rooms) of 400 square feet (37,16 square meters) or less require only one detector. Also refer to c, and d below.
   b. All areas protected by only one sprinkler require only one detector.
   c. In compartments having only one sprinkler, locate the detector as remote as practical from the sprinkler, but not less than 4" (102 mm) from the sidewall.
   d. In compartments described in a and b above, having two or more sprinklers, locate the detector approximately midway between the sprinklers.
5. The detector set point will be affected if the probe is dented or bent. Extreme care should be taken during installation to prevent any mechanical damage.
6. The detector must be installed into a mounting box.
7. The detector mounting box (supplied by contractor) should be supported by suitable building structures such as beams, bar joist, joist roof deck, or member that is not easily affected by a fire of minor intensity.
8. The detector probe should be kept out of contact with other material, such as ceiling tile, metal framing, etc., because such material may dissipate, heat and slow the operation of the detector.
9. Detectors must be mounted in such a way that the sensing shell will not be damaged and that the ability of the detector to absorb heat is not impaired. Refer to Figures 3 or 4.
10. Listed power limited fire alarm cable (FPL) wire must be used to wire the detection loop. Reference NEC 760-51 and NEC 760-53. A continuous loop must be created. Two non-stranded number 16 AWG or 18 AWG conductors will be placed on one terminal of the detection block within the Firecycle® III Release Control Panel, ran through the detectors and terminate on the second terminal in the detection block. (Refer to Figures 5 or 6)
11. Consult with the Local Authority Having Jurisdiction on the installation of the FPL wire.
12. Care must be taken when securing FPL wire to the detector box. Be sure not to over-tighten the wire retaining mechanism to the wire.
13. Perform initial and subsequent detector testing in accordance with NFPA 72.

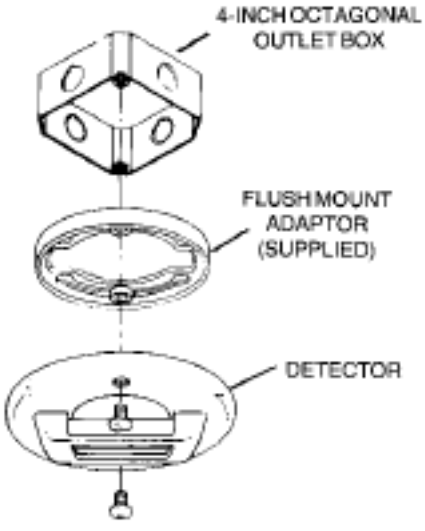

Figure 1 - Flush Mount Installation

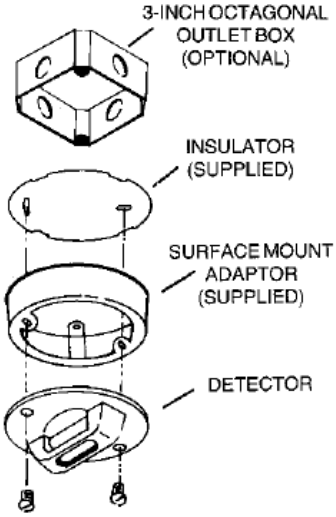

Figure 2 - Surface Mount Installation

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Surface Mounting: (Exposed Wiring)

1. Four knockouts are located on the side of the surface mounted adaptor. Remove appropriate knockouts and install supplied rubber grommets.
2. Mount Adapter to solid ceiling surface through slotted holes in adapter mounting brackets. Supplied insulator gasket should be placed between ceiling and adaptor. Adaptor may be rotated to position of detector.
3. Run system wiring through rubber grommets and connect to terminals on detector per Figure 5 observing applicable electrical codes.
4. Mount detector to adaptor with two #8-32 screws supplied.

For optional outlet box mount, proceed as follows:

1. Bend the mounting brackets on the supplied adaptor to fit standard 4-inch outlet box.
2. Mount adaptor to outlet box through two slotted holes in adaptor mounting brackets. Adaptor may be rotated to position detector.
3. Connect system wiring to terminals on detector per Figure 5 observing applicable electrical codes.
4. Mount detector to adaptor with two #8-32 screws supplied.

Flush Mount Units:

1. It is recommended that a standard 4-inch outlet box be used to mount detector. Care should be taken that a neat 4-inch diameter hole be cut in ceiling to allow mounting clearance for detector. An oversized hole or ragged hole may show around the mounted unit.
2. Attach supplied flush mounted adaptor to outlet box. Adaptor may be rotated in screw slots to position detectors as desired.
3. Connect system wiring to terminals on detector per Figure 5 observing applicable electrical codes.
4. Mount detector to adaptor with two #8-32 screws supplied.

Warnings:

1. In order to function properly, the shell of the unit must remain free from paint, grease, oil, etc. If the detector shell has been painted or if grease or oil or other substance has been applied to the unit, the detector must be replaced.
2. Detectors shall be protected from physical abuse or damage.
3. Do not install the unit where the shell would be physically damaged by sand, grain, rocks, etc.
4. Any detectors that have been abused or damaged must be replaced.

Any of the above could change the factory temperature setting, which may result in property damage and/or personal injury or death. It is possible for a unit to have been abused or damaged and not display any outward indication of the damage. All units should be tested periodically in accordance with the requirements set forth in NFPA 72 or the Authority Having Jurisdiction.

5. OPERATION

The Viking Firecycle® Multi-Cycle OH Detector is a mechanical switch that is closed at normal room temperature. When the ambient temperature increases to the set point, the contacts open. When the ambient temperature drops below the set point, the contacts close.

6. INSPECTIONS, TESTS AND MAINTENANCE

The detector should be kept clean and tested for operation annually. Detectors may be tested by the use of a heat gun directed at the shell of the detector or by immersing the probe in a container of heated water. When the detector operates, an Ohm-meter connected across the detector leads will indicate an open circuit. The detector set point will be affected if the probe is dented or bent. If a detector is subject to a sustained minimum temperature of 300°F (149°C), the heat exposure dot will turn black. In either case, the detector should be replaced.

7. AVAILABILITY

The Viking Firecycle® Multi-Cycle OH Detector is available through a network of domestic and international distributors. See the Viking Corp. Web site for closest distributor or contact The Viking Corporation.

8. GUARANTEES

For details of warranty, refer to Viking's current list price schedule or contact Viking directly.

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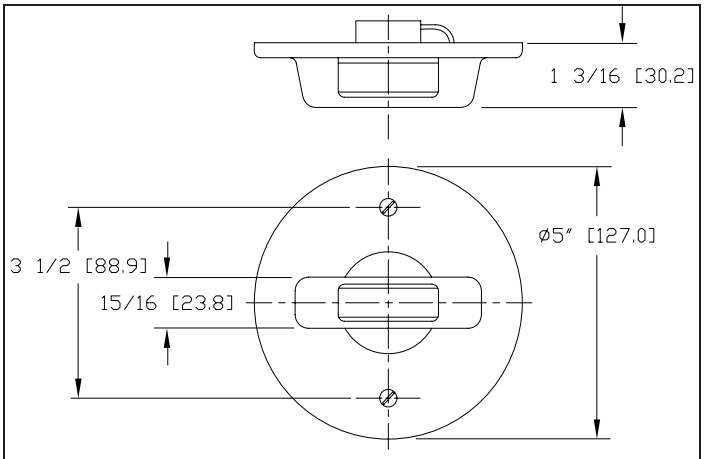

Figure 3 -
Flush Mounted Detector

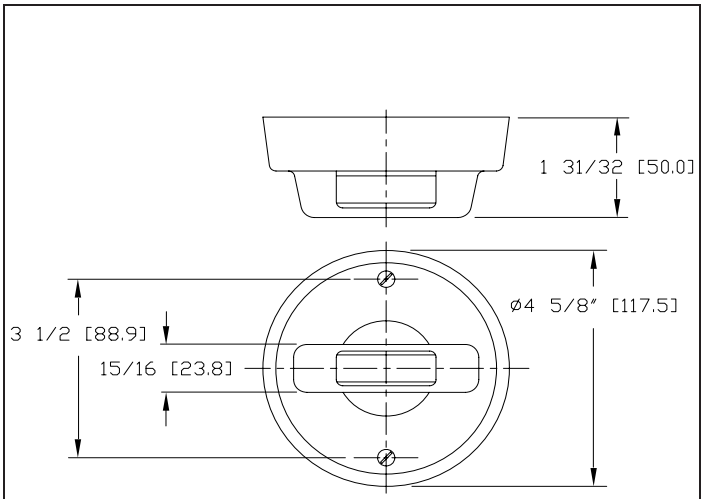

Figure 4 -
Surface Mounted Detector

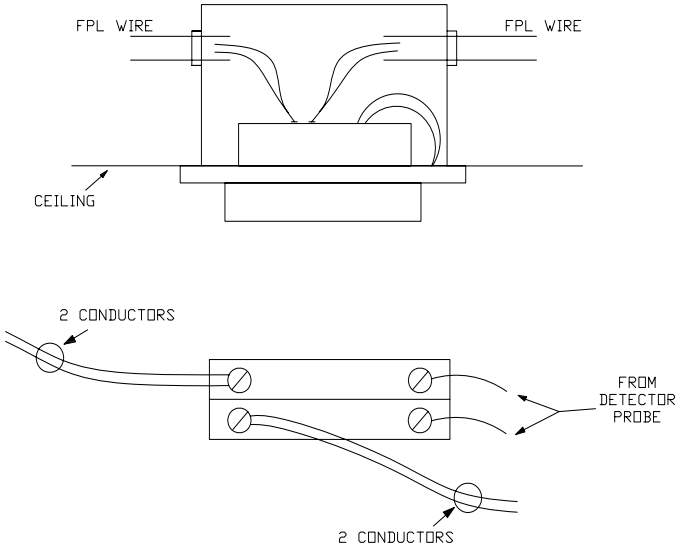

Figure 5 -
Detector Wiring Schematic

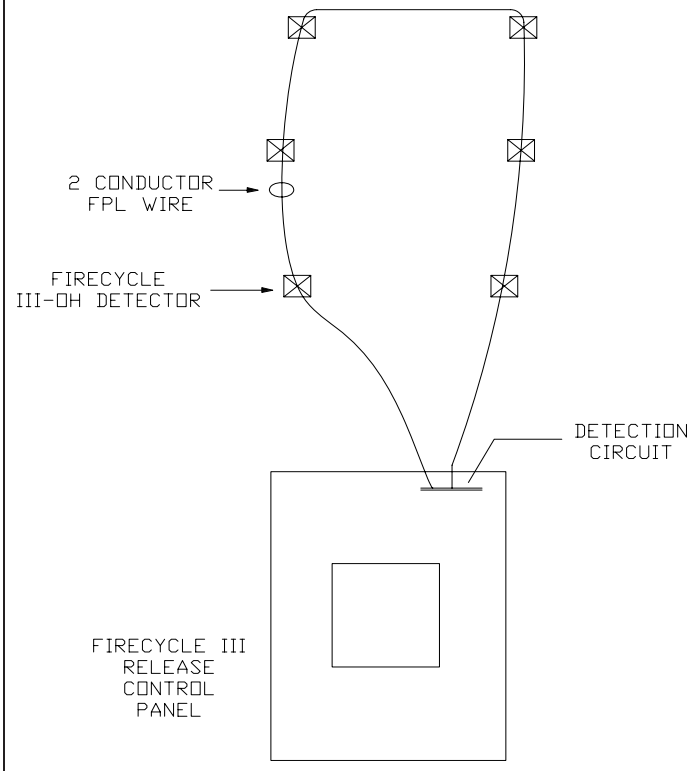

Figure 6 -
Detector Wiring Schematic