



TECHNICAL DATA

SLR-24VN PHOTOELECTRIC SMOKE DETECTOR (MRI)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

1. DESCRIPTION

The SLR-24VN can be used in all areas where Photoelectric Smoke Detectors are required. The wide range smoke chamber makes the SLR-24VN well suited for fires ranging from smoldering to flaming fires. The SB-46 base may be used with the SLR-24VN. Current interchangeable/compatible devices are the SIJ-24 ionization detector, the SLR-24H photoelectric detector with heat sensor, and the DCD-135°/190° heat detectors.

2. LISTINGS AND APPROVALS

UL Listed - Guide UROX.S1383
CSFM Listed

3. TECHNICAL DATA

Manufactured by:
Potter Electric Signal Company, LLC
2081 Craig Road
St. Louis, Missouri 63146

Specifications:

Light Source: GaAIAs Infrared Emitting Diode
Rated Voltage: 17.7 - 33.0 VDC
Working Voltage: 15.0 - 33.0 VDC
Maximum Voltage: 42 VDC
Supervisory Current: 45 μ A at 24 VDC
Surge Current: 160 μ A Max. at 24 VDC
Alarm Current: 150 mA Max. at 24 VDC
Ambient Temperature: 32 °F to 120 °F (0 °C to 49 °C)
Sensitivity Test Feature: Automatic Sensitivity window verification test.
Mounting: Mounts on SB-46 Smoke Detector Base

Ordering Information:

Part Number: 1430032

Accessories:

The SB-46 Smoke Detector base is designed specifically for use with the SLR-24VN.
SB-46 Smoke Detector Base - PN 1430014



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.

4. INSTALLATION

Insert the detector into the base, turn the detector clockwise until it locks, then tighten the vandal resistant allen screw.

CAUTION: THESE UNITS MUST BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH ALL APPLICABLE NFPA STANDARDS, LOCAL CODES AND ANY AUTHORITY HAVING JURISDICTION. PLEASE REFER TO NFPA72 STANDARDS FOR AUTOMATIC FIRE DETECTORS FOR INSTALLATION GUIDELINES, AND TESTING PROCEDURES.

5. OPERATION

The SLR-24VN photoelectric smoke detector utilizes two bicolored LED's for indication of status. In a normal standby condition the LED's flash green every 3 seconds. When the detector senses that its sensitivity has drifted outside the UL listed sensitivity window the LED's will flash red every 3 seconds. When the detector senses smoke and goes into alarm the status LED's will latch on red. The detector utilizes an infrared LED light source and silicon photo diode receiving element in the smoke chamber. In a normal standby condition, the receiving element receives no light from the pulsing LED light source. In the event of a fire, smoke enters the detector smoke chamber and light is reflected from the smoke particles to the receiving element. The light received is converted into an electronic signal.

Signals are processed and compared to a reference level, and when two consecutive signals exceeding the reference level are received within a specified period of time, the time delay circuit triggers the SCR switch to activate the alarm signal. The status LEDs light continuously during the alarm period.

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6. INSPECTIONS, TESTS AND MAINTENANCE**SLR-24VN Sensitivity Test Feature Procedure**

1. In normal condition, both LEDs flash green.
2. When the sensitivity drifts outside of its sensitivity limits, both LEDs flash red.
3. In the alarm state both LEDs are red continuously.
4. When the sensitivity drifts outside of its sensitivity limits and both LEDs flash red, the device needs to be cleaned or returned to the factory for cleaning.

7. AVAILABILITY

The SLR-24VN Photoelectric Smoke Detector is available through a network of domestic and international distributors. See the Viking 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.