PRECISION
Photoelectric Smoke Detector

VFD-100

Features

- Distributed Intelligence Architecture
- Five (5) individually programmable operating modes
- Three (3) alarm levels
  - Alert
  - Action
  - Fire Alarm
- False alarm rejection
- Automatic drift compensation
- Dual LED status indicators
- Optional remote LED
- Fits 4 and 6 inch universal mounting bases
- PRECISION SLC device
  - Style 4, 6 or 7 wiring
  - Analog addressable
  - Priority Alarm reporting
  - Secondary conventional alarm reporting

Description

The PRECISION Photoelectric Smoke Detector is a highly intelligent device that has been optimized to detect incidents resulting from smouldering fires making it particularly suitable for life safety applications. The detector includes false alarm rejection and automatic drift compensation algorithms to provide greater stability and accuracy without compromising its sensitivity to smoke.

Designed for operation with the PROACTIV Fire Alarm Control Panel (FACP) System, the Photoelectric Detector has a moulded white polycarbonate case with two clear LEDs, wind-resistant smoke inlets and an insect resistant mesh.

Function

The PRECISION Photoelectric Smoke Detector can operate in five (5) different modes and is easily programmable from the PROACTIV FACP. The detector can report three (3) alarm conditions, ALERT, ACTION and ALARM.

The five different modes allow for preset combinations of smoke sensitivity and confirmation delays, enabling application in a wide range of operating conditions.

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Operation

The detector uses light scattering technology to detect the smoke characteristics and density. The reflected light is read by a photo-diode sensor and is converted to a digital format, which is processed to provide a digital value for transmission to the PROACTIV FACP when the device is polled.

The detector has two integral LED indicators, which can be illuminated by the FACP to indicate that the device is in alarm. The detector can be programmed to flash each time the device is polled.

If communication with the FACP is interrupted, the detector automatically switches to its conventional alarm reporting mode. When a fire is detected, the detector imposes an alarm signal on the SLC which is received by the FACP.

Ordering Information

PRECISION Devices

Description	Model	Description	Model
PRECISION LaserCOMPACT Detector	VLC-828	Remote Indicator	VFD-603
Photoelectric Smoke Detector	VFD-100	Switch Monitor Module	VFD-501
Ionization Smoke Detector	VFD-200	Priority Switch Monitor Module	VFD-502
Heat Detector	VFD-300	Mini Switch Monitor Module	VFD-506
Multi-sensor Detector	VFD-400	Priority Mini Switch Monitor Module	VFD-505
4-inch Mounting Base	VFD-000	Sounder Control Module	VFD-504
4-inch Relay Base	VFD-003	Input Output Monitor Module	VFD-503
4-inch 20D Isolator Base	VFD-004	Short Circuit Isolator	VFD-500
6-inch E-Z Fit Mounting Base	VFD-005	Short Circuit Isolator Base	VFD-001
6-inch Trim Ring	VFD-002	PRECISION Addressing Cards	PSP-2039

Note: Not all of the above products are available in all regions.
Consult your local distributor or Xtralis office for more information.

Specifications

Device Type
PRECISION device

PRECISION SLC
Universal wiring bases support NFPA 72 Style 4, 6 and 7. Style 7 requires the use of isolators

Operating voltage
24 VDC

Standby current
400 µA average

Alarm current, LED illuminated
3.44 mA

Alarm indicator
2 red LEDs
Optional remote LED

Operating Temperature
32°F to 140°F (0°C to 60°C)

Humidity
0 to 95% RH, non-condensing

Dimensions
4 inch (100 mm) diameter
1.7 inch (42 mm) height
2 inch (50 mm) height (in base)

Weight
Detector 3.7 oz (105 g)

Note: Specifications are typical at 24 V, 23°C and 50% relative humidity unless otherwise stated.

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