

# 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.

# PRECISION

## Photoelectric Smoke Detector

VFD-100

### 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.

[www.xtralis.com](http://www.xtralis.com)

**The Americas** +1 781 740 2223 **Asia** +852 2297 2438 **Australia and New Zealand** +61 3 9936 7000  
**Continental Europe** +41 55 285 99 99 **UK and the Middle East** +44 1442 242 330

The contents of this document are provided on an "as is" basis. No representation or warranty (either express or implied) is made as to the completeness, accuracy or reliability of the contents of this document. The manufacturer reserves the right to change designs or specifications without obligation and without further notice. Except as otherwise provided, all warranties, express or implied, including without limitation any implied warranties of merchantability and fitness for a particular purpose are expressly excluded.

This document includes registered and unregistered trademarks. All trademarks displayed are the trademarks of their respective owners. Your use of this document does not constitute or create a licence or any other right to use the name and/or trademark and/or label.

This document is subject to copyright owned by Xtralis AG ("Xtralis"). You agree not to copy, communicate to the public, adapt, distribute, transfer, sell, modify or publish any contents of this document without the express prior written consent of Xtralis.

Doc. no. 12490\_02

Part: 30079

