# PRECISION
## Multi-sensor Detector

VFD-400

## Features

- Distributed Intelligence Architecture
- Broad detection performance making it suitable for a wide range of applications
- Five (5) individually programmable operating modes
- Three (3) alarm levels
  - Alert
  - Action
  - Fire Alarm
- False alarm rejection
- Automatic drift compensation
- LED status indicators
- Optional remote LED
- Fits 4 and 6 inch mounting bases
- PRECISION SLC device
  - Style 4, 6 or 7 wiring
  - Analog addressable
  - Priority Alarm reporting
  - Secondary conventional alarm reporting

## Product Description

The PRECISION Multi-sensor Detector provides optimum photoelectric smoke sensing and heat detection. The detector can be configured for pure smoke detection, pure heat detection, or a combination of both, which makes it suitable for the widest possible range of applications.

The Multi-sensor Detector is designed for use with the PROACTIV Fire Alarm Control Panel (FACP) System. The detector contains a photoelectric smoke sensor and a thermistor temperature sensor, which are used in the determination of a fire event. The combination of signals from the two sensors is dependent on the response mode selected.

## Function

The PRECISION Multi-sensor Detector can operate in five (5) different modes and are easily programmable from the PROACTIV FACP. The detector can report three (3) alarm conditions: ALERT, ACTION and ALARM.

The five modes allow for preset combinations of photoelectric smoke detection and heat detection: one mode uses pure heat detection, another uses pure smoke detection, and the remaining three modes use a combination of the two technologies.

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## Operation

The signals from the photoelectric smoke sensing element and the temperature sensor are independent, and represent the smoke level and the air temperature respectively in the vicinity of the detector. These readings are combined based on the operating mode and 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
Two-wire supply, polarity insensitive

**Operating voltage**
24 VDC

**Quiescent current**
470 µA average 750 µA peak

**Alarm current, LED illuminated**
3.47 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
2 inch (50 mm) height
2.3 inch (58 mm) height (in base)

**Weight**
Detector 3.7 oz (105 g)
Detector in base 5.6 oz (160 g)

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