

## Reflective Infrared Optical Beam Smoke Detector - obsolete

The FIRERAY@50/100R series conventional infrared optical beam smoke detectors provide economical and effective protection of large, open plan spaces with high ceilings, particularly if access to 'point type' smoke detectors presents practical difficulties.

Optical beam smoke detectors are ideally suited for protecting warehouses, factories, atria, shopping malls, leisure centres, churches, museums, power stations and industrial plants. The FIRERAY@50/100R optical beam smoke detectors can be connected to a zone of a conventional fire alarm panel, or interfaced to an analogue addressable system via an addressable interface input module or a zone monitor.

The FIRERAY@50/100R has three selectable 'Alarm Thresholds' settings of 25%, 35% and 50% which can be selected to suit the environment.

There are two modes of operation for the fire relay. 'Auto Reset Mode' will reset the fire relay approximately 5 seconds after the received infrared signal has recovered to a level under the alarm threshold. 'Latching Mode' holds the fire relay active indefinitely after an alarm condition has occurred.

If the infrared beam is obscured rapidly by a level of 90% or greater for 10 seconds the fault relay is activated. The fault relay will reset within 5 seconds of the condition being rectified. The FIRERAY@50/100R optical beam smoke detectors monitor long term degradation of beam signal strength caused by the build up of dirt on its optical surfaces. This operates by comparing the received infrared signal against a reference voltage every 15 minutes.



### Features

- Combined transmitter and receiver unit in one discrete unit
- Range 5-50 Metres - FIRERAY@50R
- Range 50-100 Metres FIRERAY@100R
- Low current consumption
- Automatic self-check drift compensation
- Selectable sensitivity/threshold levels
- Selectable latching/non-latching fire alarm
- LED indicators to aid the alignment process
- Approvals including EN54-12

### Specification

Operating Range	F50RV: 5 to 50 Metres. F100RV: 50 to 100
Operating Voltage Range	10.2V <sub>DC</sub> to 30V <sub>DC</sub>
Quiescent Current	Less than 4mA at 24VDC
Alarm Current	Less than 15mA
Power Down Reset Time	5 Seconds
Relay Contents: <b>Fire</b>	Normally Open
<b>Fault</b>	Normally Closed (VFCO 2A at 30V <sub>DC</sub> , Resistive )
Operating Temperature	-20° to +55°C (Non-condensing)
Relative Humidity	RH 0% to 93% (Non-condensing)
Detector Dimensions	126 x 210 x 120 (mm) W x H x D
Prism Dimensions	100 x 100 x 9.5 (mm) W x H x D
Weight	0.67Kg

IP Rating	IP50
Approvals/Certification	Designed, manufactured and certified to
CPD Reference	0786-CPD-20045
Housing Construction	Flame retardant ABS. Finish: Grey/Black

## Order Codes and Options

08-0206.9:	FIRERAY®50RV Reflective Infrared optical beam smoke detector
08-0206.10:	FIRERAY®100RV Reflective Infrared optical beam smoke detector

[Check if this document is up to date](#) | [Give us feedback](#)

Advanced, The Bridges, Balliol Business Park, Newcastle upon Tyne, NE12 8EW, UK T: +44 (0)345 894 7000, E: [enquiries@advancedco.com](mailto:enquiries@advancedco.com),  
W: [www.advancedco.com](http://www.advancedco.com)

As our policy is one of constant product improvement the right is therefore reserved to modify product specifications without prior notice.