NOTIFIER®
by Honeywell

Opal™ Addressable Beam Detector

Data Sheet





The Opal addressable beam detector is an intelligent reflector type linear optical beam smoke detector designed to operate with Notifier addressable fire alarm systems. It operates primarily on the principle of light obscuration utilising infra-red light.

Features

- 5 – 100m operating range, designed for the protection of buildings such as shopping centres, heritage buildings, warehouses and other structures with large open spaces
- Easy set-up and calibration with visual aids for both coarse and fine adjustment
- Loop powered with built in isolation for system mapping
- Utilizes the advanced Opal digital protocol whilst remaining backward compatible with existing Notifier systems
- The NFXI-BEAM-T Beam Detector features a unique remote test capability that fully tests both the optics and the electronics of the device. This means there's no need to hire a platform to give high level access to the device in testing.
- Two automatically variable sensitivity modes compensate for short term environmental changes
- Automatic drift compensation compensates for long term sensitivity changes caused by environmental factors
- Four fixed sensitivity levels

Opal beam detectors are combined transmitter/receiver units, which can be directly connected to a Notifier Opal protocol addressable loop. The NFXI-BEAM is entirely loop powered without the need of a separate local power supply. The unique servo test feature of the NFXI-BEAM-T requires 24Vdc @ 0.5A.

The Infra-Red transmitter generates a beam of light towards a high efficiency reflector. The reflector returns the beam to the receiver where an analysis of the received signal is made. The change in the strength of the received signal is used to determine the alarm condition.

Installation

Each beam detector set is supplied with a reflector for up to 70 Metres measuring just 20cm x 23cm. A kit comprising of 3 additional reflectors is also available, extending the range to 100 Metres.

Alignment of the detector is simplified with the aid of the detector's "gunsight" targeting device. Alignment of the detector with the reflector can then be "fine tuned" with the aid of a numerical signal strength indicator.

The beam detector uses advanced algorithms to sample the environment and to adjust its sensitivity and alarm thresholds automatically. This provides optimum sensitivity within an unstable environment. The detector incorporates automatic drift compensation, whereby the detector will adjust its detection thresholds in line with any long term signal reduction of the beam caused by contamination of the optical surface.

This document is not intended to be used for installation purposes. Every care has been taken in the preparation of this document but no liability can be accepted for the use of the information therein. Design features may be changed or amended without prior notice.
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ISO9001
Design, Manufacture and Supply to Quality Management Systems Certified to ISO9001:1994

Quality Systems Certificate No. 154
Assessed to ISO9001

Opal Series Addressable Beam Detectors

The Opal beam detector is loop powered from any Notifier addressable fire alarm control panel. The Opal NFXI-BEAM-T Beam detector has traditional loop communications, but as it includes the remote test option it requires an external 24VDC power supply.

A number of mounting options and range extensions are available to allow installation in any environment.

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Specifications

NFXI-BEAM and NFXI-BEAM-T Addressable Beam Detectors

Mechanical Specification

- Dimensions:
  - Height: 254 mm
  - Width: 190 mm
  - Depth: 84 mm
- Weight: 1.77 kg
- Max Wire Gauge for Terminals: 2.0mm^2
- Colour: White trim, black box
- System Indicators: Standby, fault and alarm LEDs visible from the front and bottom
- Material
  - Trim: Bayblend FR110
  - Lens cover: Lexan
  - Backbox: Noryl
- Reflector: 200 x 230mm
  5 - 70m range, supplied as standard

Electrical Specification

- Current Consumption
  - Typical Standby : 2mA @ 24Vdc (No communications, LED off)
  - Maximum Alarm Current : 8.5mA @ 24Vdc (LED on)
- Operating Voltage: 15 to 32Vdc (24Vdc Nominal)

Environmental Specifications

- Operating temperature: -30°C to +55°C
- Relative humidity: 0% to 95%, non-condensing
- Ingress Protection (IP) Rating: IP54

Approvals

- CPD to EN54-12, LPCB, VdS, BOSEC, AFNOR, VNIIPO



Product Range at a Glance

		Part Number
	Loop powered reflective IR beam, complete with reflector for up to 70 metres. Use BEAM-LRK for 70 to 100 metres.	NFXI-BEAM
	Loop powered reflective IR beam with servo test feature, complete with reflector for up to 70 metres. Use BEAM-LRK for 70 to 100 metres.	NFXI-BEAM-T
	Surface Mount Kit for IR reflective beam. Allows direct surface cable entry.	6500-SMK
	Multi Mount Kit for IR reflective beam. Provides ceiling and wall mount swivel bracket. Note : requires 6500-SMK.	6500-MMK
	Long range reflector kit for 70 to 100 metres.	6500-LRK
	Remote test key switch for beam detectors	6500RTS-KEY
	Heater kit for beam unit	BEAMHK
	Heater kit for reflector unit	BEAMHKR

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