Beam Detector

General

With no specialist tools or knowledge needed for installation and operation, the Eazy Beam is a standalone beam detector that prioritises ease of installation. Using the Eazy Beam, it couldn't be easier to bring the benefits of beam detection to your application:

- Auto-Aligns - using the integrated user interface - just steer the laser onto the Reflector, then at the flick of a switch, it aligns itself. 8 times faster than previous detectors
- One person installation – everything can be done by one person
- One standalone product – no specialist tools required; minimal prior knowledge and training needed
- Alignment of a detector in a Minute

Salient Features

- UL approval.
- Auto alignment.
- Easy Installation.
- Standalone Detector.

Features

- Alignment mode switch, alignment directional buttons and configuration switches for alarm response threshold.
- 2 Green LEDs and 1 Yellow LED for alignment status.
- System status : Green LED flashing every 10 sec in normal condition; Red LED flashing every 10 sec in alarm condition; Yellow LED flashing every 10 sec for obscuration or every 5 sec for contamination in Fault condition.
- Flat front face with enclosed optics. Cleaning the optics does not affect alignment.
- Integrated visible laser and auto-alignment for ultimate ease of alignment.
- Integrated user interface.
- Prevent nuisance alarms with Light Cancellation Technology™ which compensates for sunlight and artificial light sources.
- Building Movement Tracking™ continuously maintains alignment when buildings settle or flex due to temperature variations.
- Contamination Compensation to correct for gradual build-up of dust on optics.
- Clean detectors quickly and easily without affecting alignment.
- Low power consumption; can be powered from the loop.
- Prevent interference between beams with Dynamic Beam Phasing; install beams facing each other or in irregular configurations.
- Detection range of up to 120m.

Specification

Electrical Specification	
Operating Voltage	14 – 36 VDC
Operating Current	All operational modes – 5mA; Fast alignment mode – 33mA
Operating Temperature	-20 – 55° C / -4 – 131° F
Storage Temperature	-40 – 85° C / -40 – 185° F
Relative Humdity (non -condensing or icing)	93 ± 2% RH (non-condensing) at 32 ± 2° C / 90 ± 3° F
IP Rating	IP55
Housing Flammability Rating	UL94 V0 polycarbonate
Optical Specification	
Fault level / Rapid obscuration (Δ ≤ 2 seconds)	≥85%
Maximum angular misalignment of Reflective Detector	±0.5°
Maximum angular misalignment of Reflector	±5°
Maximum angular alignment of Reflective Detector	±4.5° (±70° with adjustment bracket accessory)

Detection Performance

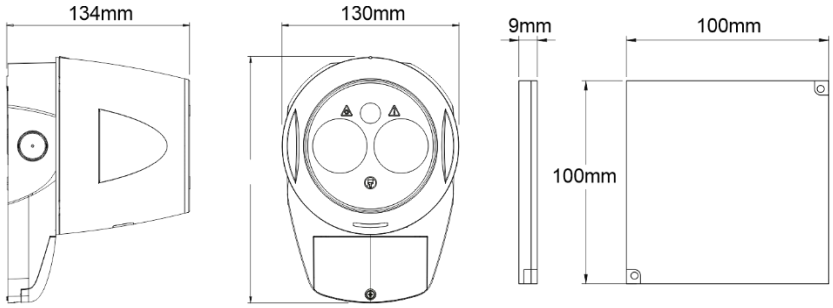
Detection range	0 to 50m 0 to 120m with Reflective Long Range Kit
Alignment method	Laser assisted, Auto-Alignment™. Manual alignment –optional setting
Auto-Alignment™ protocol	Background check, Box search, Adjust and Centre
Building Movement Tracking™	Compensates for natural shifts in alignment from building movement
Contamination Compensation	Compensates for gradual build-up of contamination on the optical surfaces
Light Cancellation Technology™	Compensates for high levels of sunlight and artificial lighting
Optical wavelength – smoke detection	850nm near infrared (invisible)
Integrated laser – laser alignment	650nm visible. Class IIIa <5mW
Dynamic Beam Phasing	Allows beam detectors to be mounted facing each other with the reflectors in the middle. Eliminates false alarms caused by crosstalk between beams
Signal output	Individual Alarm and Fault relays (VFCO) 2A @ 30 VDC

Programmable User Settings

Alarm response threshold levels	25% (1.25dB) – Fastest response to smoke 35% (1.87dB) – Default value 55% (3.46dB) – High immunity to false alarms, slow response to smoke 85% (8.23dB) – Highest immunity to false alarms, slowest response to smoke. Configured via the integrated user interface
Delay to Alarm	10 seconds, for momentary partial obstruction of the beam path
Delay to Fault	10 seconds, for momentary obstruction of the beam path

Design Parameters

Separation distance between Detector and Reflector	5 to 50m 50 to 120m with Reflective Long Range Kit
Beam path clearance	1m in diameter from centre line between Detector and Reflector
Detector dimensions	130W x 181H x 134D in mm (see diagram)
Reflector dimensions	Up to 50m separation distance – Single reflector 100mm x 100mm x 9mm Up to 120m separation distance – Two reflectors arranged in a square patter 200mm x 100mm x9mm
Product weight	Detector – 0.7kg; Reflector – 0.1kg
Multi-detector arrangement	Dynamic Beam Phasing allows for Detectors to face each other with the reflectors in the middle
Housing color	White RAL9016, UV stable

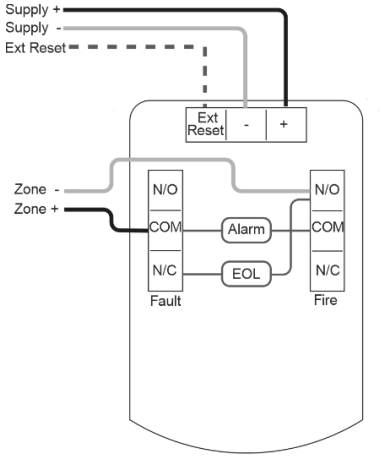


Field Wiring

Cable gauge and type	2 core, dedicated, 0.5 to 1.6mm (24 to 14 AWG) System compatible with fireproof and non-fireproof cable meeting local installation standards
Cable entry	3 knock-out locations capable of accepting M20, ½" or ¾" glands 4 drill-out locations capable of accepting glands up to 21mm diameter

Test and Maintenance

Alarm test	Optical alarm test using Commissioning and Maintenance Kit accessory



Ordering Information

Model	Description
EazyBeam-50	Beam Detector - 50Mtrs
EazyBeam-120	Beam Detector - 120Mtrs

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