

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

Detection Performance

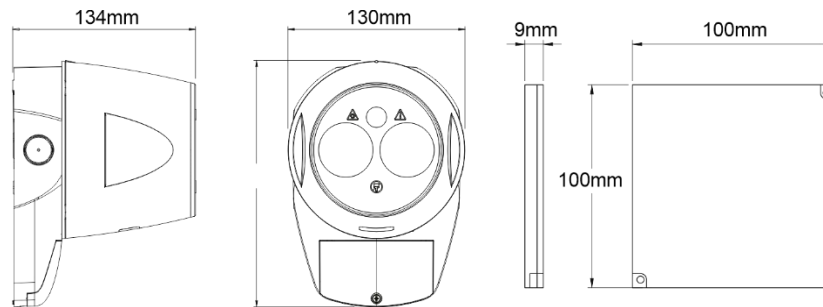
<i>Detection range</i>	0 to 50m 0 to 120m with Reflective Long Range Kit
<i>Alignment method</i>	Laser assisted, Auto-Alignment™. Manual alignment – optional setting
<i>Auto-Alignment™ protocol</i>	Background check, Box search, Adjust and Centre
<i>Building Movement Tracking™</i>	Compensates for natural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

Programmable User Settings

<i>Alarm response threshold levels</i>	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
<i>Delay to Alarm</i>	10 seconds, for momentary partial obstruction of the beam path
<i>Delay to Fault</i>	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 patten 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

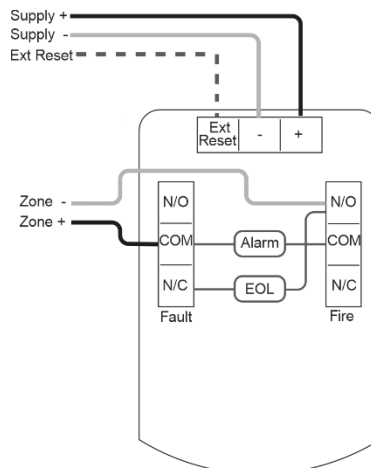


Field Wiring

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
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Ordering Information

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

India

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