FIREbeam *xtra*

Motorised Reflective Optical Beam Smoke Detector

Version 3.0

The FIREbeam xtra

So what makes The Fire Beam different?

Two main attributes make The Fire Beam stand out from the crowd. A motorised beam head that continually self-aligns, and a low level controller from which all major functions can be performed.

The Motorised Head

Up until now, aligning an optical beam could well have been a nightmare, often giving uncertain results that can lead to false alarms. By utilising motors within the beam head, The Fire Beam can make commissioning a safer and more accurate procedure. The unique method of using high quality stepper motors allows us to make micro adjustments of just 1/40 of 1 degree to the beam head. This is automatically controlled by software which finds and continually monitors its position in relation to the reflector. A simple commissioning procedure ensures that you achieve perfect alignment every time and that your beam will keep that alignment.

Building movement is the enemy of beam detection, as the smallest movement of a building through heat changes or settlement will move a beam off its target (imagine a couple of degrees of movement in a 100m building). The Fire Beam will continually monitor any movement and re-align itself automatically. How many times have you had to return to a site and re-align beams at high level, and at what expense?

The Low Level Controller

Low level control means just that. Once you have the head in place and wired in, you can make any changes and adjustments you want from ground level.
You can:
• commission the beam from ground level
• manually move the beam head
• view the air quality
• view the status of the beam
• change sensitivity thresholds
• change the time to fire and fault
• make the alarm latching or non latching
• turn on and off the green flashing light
• see fire and fault counts
• see how much compensation has been made for dirt build up (you will only have to clean the head and reflector when it needs it)
• complete a self test
• turn the beam on and off (it will reset itself after 8 hours)
• adjust output and receiver settings
• and even monitor the temperature at the beam head!

Additional Features

The Fire Beam has very low power consumption (3.5mA) and can be connected to the fire system detection loop.

The Fire Beam IP65 RatingIP65: means no ingress whatsoever making The Fire Beam ideal for environments, such as food processing halls, as it can be hosed down. IP65 also means nasty little creatures can't set up home inside and jeopardise the effectiveness of the detector.

Easy Clean Lenses: The Fire Beam has been designed to be easily cleaned due to its flat surfaces. Unlike other beams, all the moving optics are safely encased inside the waterproof enclosure so you won't accidentally knock the beam out of alignment. This means The Fire Beam can easily be cleaned from ground level using something like a no-climb pole and suitable attachment.

Using The Fire Beam saves time and money

Great cost savings can be made over spot and air sampling systems. For example, just one beam can be used instead of 16 spot detectors so cost savings can be considerable. Furthermore, wiring to a single head is more cost effective than fitting yards of air sampling tubing.

The advanced technology will greatly reduce commissioning time. It is commonplace to see 25 beams fully commissioned in less than one day. You simply start with one beam and move onto the next, then the next, all from ground level. Spending hours working at height trying to align beams is a thing of the past. Furthermore, self-alignment in normal service means not having to go back and re-align the beam after building movement - again saving time and the expense of lifting equipment, not to mention the disruption this causes.

The Fire Beam can also be added to the fire detection loop.

The **FIREbeam** *xtra* range...

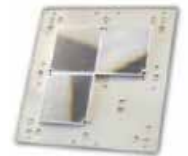**FBE-ESP-FIREBEAM-XTRA** (Hochiki Analogue)
FBE-FIREBEAM-XTRA (Conventional)
Use the firebeam for distances over 7 metres and up to 70 metres.
Comes complete with head, low level controller, user manual and 3mm allen key.
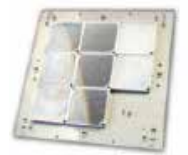

Mid range distance kit   FBE-70KIT140
Use this for distances over 70 metres and up to 140 metres (simply add the single reflector from the standard firebeam).

Long range distance kit   FBE-140KIT160
Use this for distances over 140 metres and up to a maximum of 160 metres (simply add the single reflector from the standard firebeam).
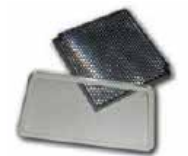

Unistrut adapter   FBE-ADAPTOR
Specially designed to screw to the back of the firebeam head, this adapter allows you to easily use Unistrut fixing systems.
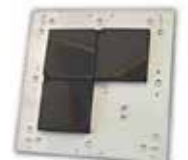

Anti fog kit   FBE-FOGKIT
Specially developed to overcome the problems of condensation, this special kit contains a reflector and lens cover that have been treated with a special Nano technology finish that will not mist over.
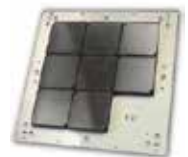

Anti fog mid range kit   FBE-70KIT140-AF
Use this for distances over 70 metres and up to 140 metres (simply add the single reflector from the standard firebeam).

Anti fog long range kit   FBE-140KIT160-AF
Use this for distances over 140 metres and up to a maximum of 160 metres (simply add the single reflector from the standard firebeam).

Adjustable wall fixing   FBE-BRACKET
FIREbeam Xtra Adjustable wall bracket for Firebeam or single reflector.

Wall cages   FIREBEAM-CAGE
Designed specifically for the Fire Beam, the Fire Beam cage protects the beam head and controller. The cage is made of steel and powder coated. The Fire Beam cage is particularly useful in applications such as sports halls.

FBE-ESP-FIREBEAM-XTRA (Analogue)

Specification		
Ordering codes	FBE - ESP Firebeam Xtra FBE - 70KIT140 FBE - 140KIT160	ESP Firebeam Xtra including controller and 1 reflector covers distance 7-70 m Firebeam Xtra Range extension kit 70-140 m Firebeam Xtra Range extension kit 140-160 m
Supply Voltage		17 to 41 VDC
Supply Current		3.5 mA (constant current) in all operational states
Constant Current		17 mA (constant current) in fast commissioning
Operating Temperature Range		-10 ^{0}C to +55 ^{0}C
Operating Humidity		10 to 95% RH Non-condensing
Ingress Protection Rating		IP65 (when suitably mounted and terminated)
Optical Wavelength		870 nm
Maximum Angular Alignment		±5°
Maximum Angular Misalignment		Beam Head ±0.4 ° Reflector ±2 ° (static not auto-aligning)
Alarm Sensitivity Levels		25%(1.25 dB) to 50%(3 dB) in 1%(0.05 dB) increments (default 35% (1.87 dB))
Weight (Kg) / Dimensions (mm)		Beam Head — 1.1 / 180H x 155W x137D Controller — 0.55 / 185H x 120W x 62D
Firebeam Xtra Add-ons	FBE - ADAPTER FBE - REP-CONT FBE - REFLECTOR FBE - FOGKIT FBE - REF-AF FBE - WINDOW-AF FBE - FIREBEAM XTRA-AF FBE - 70KIT140-AF FBE - 140KIT160-AF FBE - BRACKET FBE - SHORTRM	Firebeam Xtra Head interface adapter to mount to unistrut Firebeam Xtra Replacement controller Firebeam Xtra Single reflector Firebeam Xtra Antifog window for head and single antifog reflector Firebeam Xtra Single antifog reflector Firebeam Xtra Anti fog window Firebeam Xtra Anti fog Firebeam Xtra Firebeam Xtra Anti Fog range extension kit 70 - 140 metres Firebeam Xtra Anti Fog range extension kit 140 - 160 metres Firebeam Xtra Adjustable wall bracket for Firebeam or single reflector Firebeam Xtra Short range mask for up to 20 metres

FBE-FIREBEAM-XTRA (Conventional)

Specification		
Ordering codes	FBE - Firebeam Xtra FBE - 70KIT140 FBE - 140KIT160	ESP Firebeam Xtra including controller and 1 reflector covers distance 7-70 m Firebeam Xtra Range extension kit 70-140 m Firebeam Xtra Range extension kit 140-160 m
Supply Voltage		12 to 30 VDC
Supply Current		3.5 mA (constant current) in all operational states
Constant Current		17 mA (constant current) in fast commissioning
Operating Temperature Range		-10 ^{0}C to +55 ^{0}C
Operating Humidity		10 to 95% RH Non-condensing
Ingress Protection Rating		IP65 (when suitably mounted and terminated)
Optical Wavelength		870 nm
Maximum Angular Alignment		±5°
Maximum Angular Misalignment		Beam Head ±0.4 ° Reflector ±2 ° (static not auto-aligning)
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