FIRE FIGHTING ENTERPRISES

FIRERAY® 5000

Motorised Infrared Optical Beam Smoke Detector - Multi Head

Features

- Up to 4 Detectors per System Controller
- Each Detector configurable from 8m to 100m
- Integral LASER
- *Auto-Align* Fast Automatic Beam Alignment
- *Auto-Optimise* Building Movement and Contamination Compensation
- Low Level System Controller
- 20mm Cable Gland Knockouts on System Controller
- 2-wire interface from System Controller to Detector
- Worldwide Approvals including EN54:12 and UL268

The **FIRE**RAY® 5000 motorised, auto aligning infrared optical beam smoke detector can now be installed with up to four detector heads per system, thus saving on installation time and costs. This innovative system has been designed from the ground up to include pioneering technology that fully addresses the needs of the installer and user, both now and in the future.

With its industry leading optics, the **FIRE**RAY® 5000 is ideally suited for the protection of large areas where the use of traditional detection technologies would prove to be too difficult and/or costly to install. The **FIRE**RAY® 5000 combines an infrared transmitter and receiver in the same discrete unit and operates by projecting a well-defined beam to a reflective prism, which returns the beam to the receiver for analysis. Smoke in the beam path causes a drop in power, which, if below a pre-determined level, results in an alarm signal.

Getting the system operational is simplified by a number of groundbreaking features that combine to make the **FIRE**RAY® 5000 the quickest and easiest detector of its type to install. Each detector now takes under 5 minutes to fully align.

A full range of installation accessories are available including the Universal Bracket, which allows a greater degree of flexibility during installation.

Once the detector heads are connected, using the *Easifit* First Fix system, an integral LASER can be activated. This allows the reflective prism to be sighted quickly and with confidence. Once the LASER has been used to coarsely align the beam, *Auto-Align* takes over and automatically steers the beam into the optimum position.

The system can be fully customised, according to local conditions and installation guidelines; alarm thresholds (sensitivity) and time to Alarm/Fault can be set from the low level System Controller.

Each detector head is independently configurable from 8m through to 100m and has its own individual fire threshold. The System Controller retains one set of Fire and Fault relays that is common to all detectors that are installed.

The system is fully compliant with the requirements of RoHS & WEEE and is supplied with a 5-year warranty as standard.

data

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FIRERAY® 5000 with optional mounting bracket

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Installation Recommendations

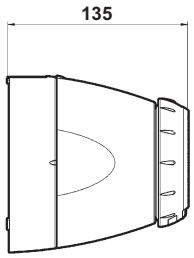
Please refer to our Quick Start Guide (QSG) or User Guide (UG) for mounting and wiring instructions. The installation of the FIRERAY® 5000 infrared optical beam smoke detector should be undertaken in accordance with recognised national or international standards and codes of practice.

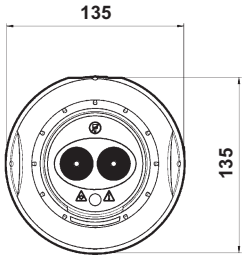
Technical Specification

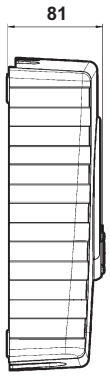
Parameter	Min.	Typ.	Max.	Unit
Operating Voltage (to System Controller)	14	-	28	VDC
Operating Current (constant) - low current mode, with 1 detector	8	10	12	mA
Operating Current (constant) - for each additional detector	1.8	2	2.2	mA
Operating Current (constant) - high current mode, with 1 to 4 detectors	48	50	52	mA
Response Threshold/ Sensitivity (Default 35%)	0.45 10	- -	3.98 60	dB %
Delay to Alarm – user settable (Default 10 sec)	2	-	30	sec
Delay to Fault – user settable (Default 10 sec)	2	-	30	sec
Operating distance (separation) *	8	-	100	m
Maximum angular misalignment of Detector from optical axis	-	-	±0.3	Deg
Maximum angular misalignment of Reflector from optical axis	-	-	±5	Deg
Maximum angular alignment	-	-	±3.5	Deg
Optical wavelength		850		nm
Fault level/ Rapid obscuration (Δ ≤ 2 sec)	-	-	87	%
Operating temperature	-10	-	+55	Deg C
Storage temperature	-40	-	+85	Deg C
Relative humidity (non condensing)	-	-	93	%
IP rating		54		-
Contact Voltage - Fire & Fault relays (DPCO)	0.1	-	36	VDC
Contact Current - Fire & Fault relays (DPCO)	0.1	-	100	mA
Cable length – System Controller to Detector (2 core screened fire resistant)	-	-	100	m
Cable gauge	24 0.5	- -	14 1.5	AWG mm
Housing flammability rating	UL94 V0			
CPD Reference	0832-CPD-0565			
UL File	S3417			

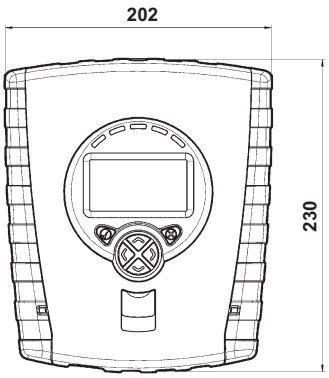
All figures are quoted for 25 deg C
* 4 Reflectors required for > 50 m operation

Dimensions









Approximate Dimensions:

Description	Width	Height	Depth	Weight
	mm	mm	mm	kg
System Controller, including base:	202	230	81	1.0
Detector, including 'easy fit' base:	135	135	135	0.5
Universal Bracket:	135	135	71	0.2
Reflector:	100	100	10	0.1

THE QUEEN'S AWARDS FOR ENTERPRISE: INTERNATIONAL TRADE 2009

A HALMA COMPANY

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In the interest of improving quality and design, Fire Fighting Enterprises Ltd reserve the right to amend specifications without prior notice.