Ampac

Fire detection and evacuation solutions that save lives.

Reflective Conventional Beam System

Features

- Allows for 2 Detectors per System Controller
- Each Detector configurable from 8m to 100m
- Separate Fire and Fault relays per Detector
- Integral LASER alignment
- Auto-Align Fast Automatic Beam Alignment
- Building Movement and Contamination Compensation
- Low Level System Controller
- Logs the 50 most recent events per detector
- Programmable Sensitivity and Fire Thresholds
- 20mm Cable Gland Knockouts on System Controller
- 2-wire interface from System Controller to Detector

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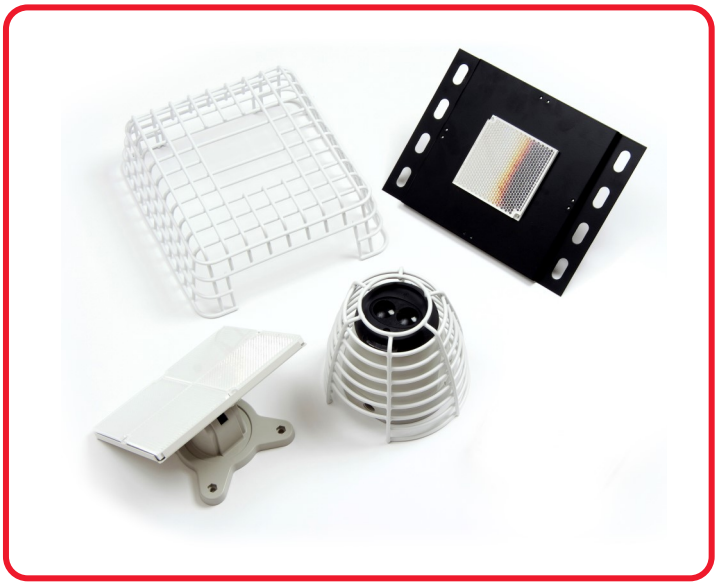
Motorised Reflective Optical Beam Smoke Detector

The Ampac Conventional motorised reflective, auto aligning infrared optical beam smoke detector can be installed with up to two detector heads per system, thus saving on installation time and costs. In addition, each system controller houses two pairs of fire and fault relays, one per detector. 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 Reflective Beam 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 Ampac Conventional Beam 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.



Operations

Getting the system operational is simplified by a number of ground breaking features that combine to make the beam the quickest and easiest detector of its type to install. Each detector takes under 5 minutes to fully align.

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

Once the detector heads are connected, using the First Fix system, an integral LASER can be activated. This allows the reflective prism to be positioned 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. During alignment the system automatically switches to high current mode and drops back to low current mode when in normal operation, however, alignment is still possible in low current mode.

Approvals

World-wide approvals includes AS7240-12, EN54:12 and UL268

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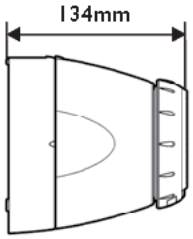
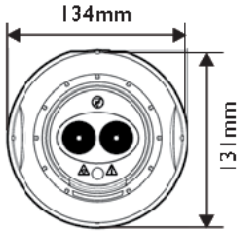
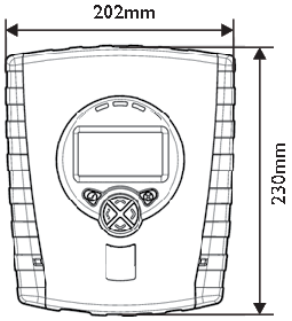
Specifications

Parameter	Min.	Typ.	Max.	Unit
Operating Voltage (to System Controller)	14	-	36	VDC
Operating Current (constant) - with 1 detector	5	5.5	6	mA
Operating Current (constant) - with 2 detectors	7.5	8	8.5	mA
Operating Current (constant) - alignment modes, with 1 or 2 detectors	35	36	37	mA
Response Threshold/ Sensitivity (Default 35%)	0.45	-	3.98	dB
	10	-	60	%
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 alignment of detector	-	-	± 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 (VFCO)	0.1	-	36	VDC
Contact Current - Fire & Fault relays (VFCO)	0.1	-	100	mA
Cable length - System Controller to Detector (2 core)	-	-	100	m
Cable gauge	24	-	14	AWG
	0.5	-	1.6	mm
Housing flammability rating	UL94 V0			
CPR Reference	0832-CPR-F0390			
UL File	S3417			
SAI Reference	SMK40168			

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







Item Numbers

4109-1004	Addressable Beam System (Controller, Detector & Reflective Prism)
220-0007	Reflective Prism
220-0009	Detector & Reflective Prism
220-0010	Long Range Reflective Prism kit (100M)
220-0011	Universal Bracket for Detector
220-0012	Prism Plate (1)
220-0013	Prism Plate (4)
220-0014	Ceiling Pendant Mounting Bracket
220-0015	Detector Protective Cage

Dimensions and Weight	Width mm	Height mm	Depth mm	Weight kg
System Controller, including base	202	230	87	1.0
Detector, including 'easy fit' base	134	131	134	0.5
Reflector	100	100	10	0.1