

Advanced Intelligent Optical Smoke Beam Detector 6500

Overview

- Advanced intelligent detection functionality
- Fully digital addressing technology
- Includes Advanced ADEVA protocol
- Unique servo - operated test filter
- Combined transmitter and receiver unit
- Range 5 - 100 metres
- 4 x fixed sensitivity / threshold levels
- 2 x automatic variable sensitivity
- Operates in the Infra-Red light spectrum
- Numerical indicators to aid beam alignment
- Standby, fault and alarm LED indicators visible from the front and bottom
- $\pm 10^\circ$ horizontal and vertical beam alignment
- Automatic drift compensation
- Loop powered
- Extended warranty
- Tested and approved to EN54-12:2002



Description

The revolutionary Advanced Intelligent ADEVA range delivers a totally new detector platform that incorporates the new digital Advanced Intelligent ADEVA protocol. The new protocol delivers more devices on the loop and gives greater control, configurability and device management whilst enabling the overall system to be optimised to the location and use of the building with far greater flexibility than ever before.

The 6500S and 6500 detectors are combined transmitter/receiver units that can be directly connected to an analogue loop circuit. The Infra-Red transmitter generates a beam of light towards a high efficiency reflector. The reflector returns the beam to the receiver where an analysis of the received signal is made. The change in the strength of the received signal is used to determine the alarm condition. The 6500S features a unique remote test capability that fully test both the optics and the electronics of the device. An optical filter is automatically introduced in front of the optics, attenuating the returned beam and causing the unit to go into alarm.

Alignment of the detector is simplified with the aid of the detector's "gunsight" targeting device. Alignment of the detector with the reflector can then be "fine tuned" with the aid of a numerical signal strength indicator.

The sensitivity of the detector can be set to between 25% and 50% obscuration, providing application flexibility to suit the environment in which the detector will be installed. In addition to the four fixed value alarm

thresholds, there are two variable thresholds that automatically compensate for changes in the environment which could otherwise result in unwanted alarms while remaining within a known sensitivity range.

The detector incorporates automatic drift compensation, where by the detector will adjust its detection thresholds in line with any long term signal reduction of the beam caused by contamination of the optical surface.

The detector can be adjusted up to 10° vertically and horizontally for alignment. Where greater angular adjustment is required, the multi-mount accessory enables the detector to move through 28° vertically and 360° horizontally when ceiling mounted or up to 23° vertically and 90° horizontally when wall mounted.

The 6500S and 6500 are using the Advanced Intelligent ADEVA protocol and are electrically and mechanically backwards compatible with previous generations of the 6500 family, providing support for existing installations where retrofits and system extensions regularly take place. For new system, the fully digital Advanced Intelligent ADEVA protocol delivers up to 159 detectors and 159 modules on each loop, allows a fully integrated and controllable isolation for system mapping and group polling. Moreover the sensitivity in the devices can be configured through the new protocol.

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Architect/Engineer Specifications



All ADEVA products are covered by our extended 5 years manufacturer warranty.

Installation Recommendations

Installation should be undertaken in accordance with recognised national or international standards and codes of practice. The recommendations detailed in our "Applications Guide for projected Beam Smoke Detector"(A05-0095) should also be taken into consideration. We would also recommend that simulated fire tests are conducted to ensure that the desired response time for a given installation are met.

Electrical Specifications

Operating Voltage Range	15 to 32 VDC (24VDC nominal) 15 to 29VDC if using built-in isolators
Typical Standby Current	2mA@24VDC (No communications, LED off)
Maximum Alarm Current (LED on)	8.5mA

Environmental Specifications

Application Temperature Range	-30°C to +70°C
Humidity	0 to 95% Relative Humidity (non condensing)
IP Rating	IP54

Mechanical Information

Height	254mm, BEAMSMK backbox 230mm
Depth	84mm
Width	Detector 190mm, BEAMSMK backbox 178mm
Weight	1.77kg
Max Wire Gauge for Terminals	2.0mm ²
Colour	White trim, black box
Material	Trim - Bayblend FR110, Lens cover - Lexan, Backbox - Norly
Reflector	200 x 230mm (5 - 70m range, supplied as standard)

Product Range

Other Devices in range	FCO731 / FCOI731	FCHR751 / FCHR1751	2251CTLE	FTX-P1
	FCOT721 / FCOTI721	FCHF741 / FCHF1741	7251	2251EIS
	FCOTI781 / FCOI781	FCHH761 / FCHH1761	DNRE	
Accessories	BEAMLRK - Long range reflector kit (70-100m range).3 off 200 x 230mm BEAMMMK - Multi-mount accessory for ceiling or wall mounting with additional mounting adjustment BEAMSMK - also required BEAMSMK - Surface mount accessory BEAMHK - Heater kit for the beam BEAMHKR - Heater kit for the reflector			

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