

Projected Beam Smoke Detector : SPB

Features

1. Compact light weight design with good look
2. Versatile application
 - Suitable for both industrial use and areas where architectural considerations are paramount
3. Large coverage
 - Designed for detection of smoke in large areas where conventional spot detection is impractical or more costly
 - 5 to 100m in range and very low stand-by current consumption
4. Easy installation and operation
 - Direct wall mounting reduces the effects of vibration associated with brackets used on other beam detectors
 - Simple commissioning
5. Self diagnostic feature
 - Automatic compensation adjustment for contamination and changes in atmospheric conditions

Principle of Operation

The SPB Projected Beam Smoke Detector consists of an emitter and a receiver which are positioned separately and facing each other at a specified distance.

In the event of fire, the generated smoke decreases the amount of light incident on the receiver. The receiver will sense such a decrease in light quantity, thereby identifying the occurrence of fire. An important feature of the detector is that it monitors the protected area of space linearly. This enables the detector to identify a fire before it spreads.

The initial beam comparison with the reference shows the occurrence of a fire, a fire signal is immediately generated. A fault signal occurs if the axis of a beam is completely obstructed.

The built-in microcomputer also functions to compensate for a change of value with time caused by contamination of the optics. When this ability to compensate reaches its limit, the microcomputer automatically generates a fault signal.

Applications

The beam type detector is applicable to buildings with high ceilings, large open areas or potentially hazardous places. Typical areas of use include :

- (a) gymnasiums, lecture halls, theatres
- (b) workshops, warehouses, vehicle bases
- (c) underground tunnels, caves
- (d) substations, electrical rooms, and chemical warehouses.



HOCHIKI CORPORATION

SINGAPORE BRANCH OFFICE

629 Aljunied Road #03-16 Cititech Industrial Building
Singapore 389838
Tel : 65-6841-9728 Fax : 65-6841-9781
Email : hochiki@singnet.com.sg

HEAD OFFICE

10-43 Kamiosaki 2-Chome. Shinagawa-Ku,
Tokyo 141-8660, Japan
Tel : 81-(3)-3444-4116 Fax : 81-(3)-3444-4167
URL : www.hochiki.co.jp

Specifications

	SPB-E	SPB-24N
Rated Voltage	DC24V	
Working Voltage Range	DC 15V ~ 33V, Peak 42V	
Current Consumption	250μA at 24V (Average)	
Current in Alarm	25mA	
Beam Length	5m ~ 100m	10m ~ 100m (32.8ft ~ 328.0ft)
Sensitivity Setting	25, 50, 70%/span	25, 50, 70%/span
Output Signals	Fire Alarm : Normally Open Contact Fault Alarm : Normally Closed Contact	
Operating Ambient Temperature Range	-10°C ~ +50°C (14°F ~ 122°F)	
Storage Temperature Range	-30°C ~ +70°C (-22°F ~ 158°F)	
Allowable Ambient Humidity (at 40°C)	95% RH Non-Condensing	
Dimensions	86mm X 100mm X 145mm	
Weight	Emitter : Approximately 400g Receiver : Approximately 500g	
Color	Off White	
Applicable Standard	BS-5839-Pt5 VdS Test Program	UL-268
Made	JAPAN	

