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BEAM1224 and BEAM1224S Conventional Reflective Beam Detectors

Section: Conventional Initiating Devices

GENERAL

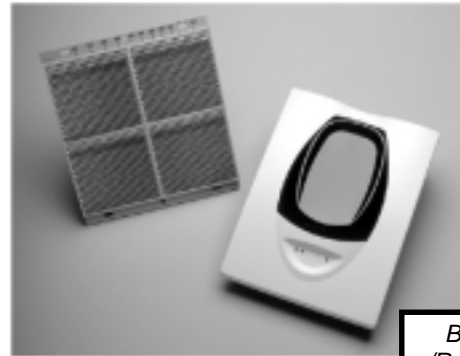
The **System Sensor BEAM1224 and BEAM1224S** are 4-wire conventional projected beam smoke detectors. They are uniquely suited for protecting open areas with high ceilings where intelligent spot type smoke detectors are difficult to install and maintain. It is to be used with UL Listed compatible fire alarm control panels only. Installation of the single-ended reflective design is much easier. Alignment is quickly accomplished via an optical sight and a 2-digit signal strength meter incorporated into the product. Listed for operation from -22°F to 131°F , the BEAM1224 and BEAM1224S can be used in garage or warehouse applications to provide early warning in environments where temperature extremes exceed the capability of spot-type smoke detectors.

The BEAM1224 and BEAM1224S consists of a transmitter/receiver unit and a reflector. When smoke enters the area between the unit and the reflector it causes a reduction in the signal and, when the smoke level reaches the predetermined threshold, an alarm is activated. They have four standard sensitivity selections along with two Acclimate settings. When either of the two Acclimate settings are selected the detector will automatically adjust its sensitivity using advanced software algorithms to select the optimum sensitivity for the specific environment.

The BEAM1224S is equipped with an integral sensitivity test feature that consists of a test filter attached to a servo motor inside the detector optics. Using the remote test station RTS451, the motor is activated and moves the filter in the pathway of the light beam, thereby testing detector sensitivity. This integral sensitivity test feature allows the user to quickly and easily meet the annual maintenance/test requirements of NFPA 72.

FEATURES

- Transmitter/Receiver built into same unit
- Single-ended, reflective design
- Six user selectable sensitivity levels
- 16' to 328' (use BEAMLRK beyond 230') protection range
- Removable plug-in terminal blocks
- Digital display - no special tools required
- Built-in automatic gain control compensates for signal deterioration from dust build-up
- Optional remote test station
- Optional Long Range Kit (BEAMLRK) for applications in excess of 230'
- Optional multi-mount kit (BEAMMMK) providing ceiling or wall mount capability with increased angular adjustment



BEAM1224
w/Reflective Plate



BEAM1224
w/BEAMMMK

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This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact NOTIFIER. Phone: (203) 484-7161 FAX: (203) 484-7118



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ISO 9001
CERTIFIED
ENGINEERING & MANUFACTURING
QUALITY SYSTEMS

OPERATIONAL SPECIFICATIONS

Protection Range: 16 ft. to 328 ft. (5m to 100m)

Adjustment Angle: +/- 10 Degrees horizontal & vertical

Sensitivity (6 Levels): Level 1 – 25%
Level 2 – 30%
Level 3 – 40%
Level 4 – 50%
Acclimate Level 1 – 30-50%
Acclimate Level 2 – 40-50%

Fault Condition (Trouble):

- 96% or more obscuration blockage
- In alignment mode
- Improper initial alignment
- Self-compensation limit reached

Alignment Aid:

Optical gunsight
Integral signal strength indication
2-digit display

Indicators:

Alarm - Local red LED and remote alarm
Trouble - Local yellow LED and remote trouble
Normal - Local flashing green LED

Test/Reset Features:

- Integral Sensitivity Test Filter (BEAM 1224S only)
- Sensitivity filter (Incremental scale on reflector)
- Local alarm test switch
- Local alarm reset switch
- Remote test and reset switch
(Compatible with RTS451 & RTS451KEY test station)

Smoke Detector Spacing:

On smooth ceilings, 30-60 feet between projected beams and not more than one-half that spacing between a projected beam and a sidewall. Other spacing may be used depending on ceiling height, airflow characteristics, and response requirements. See NFPA 72.

Environmental Specifications:

Temperature: -22°F to 131°F (-30°C to 55°C)
Humidity: 10-93% RH Noncondensing

Electrical Specifications:

Voltage: 10.2 to 32 VDC (BEAM1224)
15 to 32 VDC (BEAM1224S)
AVG. Standby Current (24 VDC): 17mA Max
AVG. Alarm Current (24 VDC): 38.5mA Max
AVG. Fault Current (24 VDC): 8.5mA Max
AVG. Alignment Mode Current (24 VDC): 28mA Max

Mechanical Specifications:

Detector Dimensions: 10.H x 7.5.W x 3.3.D
(254mmH x 191mmW x 84mmD)
Reflector Dimensions (for 16' to 230' applications):
7.9. x 9.1. (200 x 230mm)
Reflector Dimensions for (for applications beyond 230'): 15.7. x 18.1. (400 x 460mm)

PRODUCT LINE INFORMATION

Model	Description
BEAM1224	4-Wire Conventional Beam Smoke Detector
BEAM1224S	4-Wire Conventional Beam Smoke Detector with <u>Integral Sensitivity Test Feature</u>
BEAMLRK	Long Range Accessory Kit (Required for applications in excess of 230 ft. [70m])
BEAMMMK	Multi-mount kit (Provides ceiling or wall mount capability with increased angular adjustment)
BEAMSMK	Surface mount kit
RTS451	Remote test station
RTS451KEY	Remote test station with key lock

BEAMMMK - Ceiling or Wall Mount Kit, Sold Separately



RTS451



RTS451KEY

