

SINGLE-ENDED REFLECTED TYPE BEAM SMOKE DETECTOR

DESCRIPTION

System Sensor Model BEAM1224 (Fike P/N 65-1006) is a 4-wire conventional projected beam smoke detector. It is uniquely suited for protecting open areas with high ceilings where other methods of smoke detection are difficult to install and maintain. It is to be used with UL Listed compatible control panels only. Installation of the single-ended reflective design is much easier than the dual-ended projected beam detectors. Alignment is quickly accomplished via an optical sight and a 2-digit signal strength meter incorporated into the product. Listed for operation from -22 to 131°F, 65-1006 can be used in open area applications to provide early warning in environments where temperature extremes exceed the capability of other types of smoke detection.

BEAM1224 (Fike P/N 65-1006)

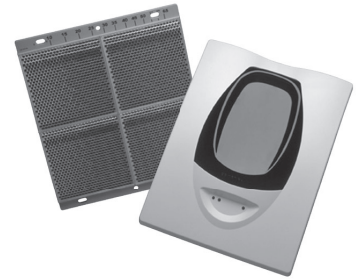
This model consists of a transmitter/receiver unit and a reflector. When smoke enters the area between the unit and the reflector it causes a reduction in the signal and, when the smoke level reaches the predetermined threshold, an alarm is activated. It has four standard sensitivity selections along 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 specified environment.

BEAM1224S (Fike P/N 65-1007)

This model 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, P/N 02-3869, 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 and test requirements of NFPA 72.

FEATURES

- 16 to 328 foot protection range
- Single-ended, reflective design
- User friendly alignment procedure
- 6 user selectable sensitivity levels
- Optional integral NFPA 72 sensitivity test feature
- Removable plug-in terminal blocks
- Digital display for easy alignment
- Built-in automatic gain control compensates for signal deterioration from dust build-up
- Remote test station optional
- Paintable cover
- Easiest alignment in the industry



APPROVALS:

- UL Listed - S911
- FM Approved - 3017888
- CSFM - 7260-1653:0168
- City of New York - 54-04-E
- MSFM Approved - 2165



SPECIFICATIONS

Operational

Protection Range:	16 ft. to 328 ft.. (5m to 100m)
Adjustment Angle:	±10 degrees horizontal & vertical (The optics more independent of the unit)
Sensitivity 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
Alarm Indicator:	Local red LED and remote alarm
Trouble Indicator:	Local yellow LED and remote trouble
Normal Indicator:	Local flashing green LED
Test/Reset Features:	Integral Sensitivity Test Filter (65-1007 only), Sensitivity filter Incremental scale on reflector), Local alarm test switch, Local alarm reset switch, Remote test and reset switch (Compatible with 02-3869 and 02-4998 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

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

Electrical

Voltage:	10.2 to 32 VDC (65-1006) 15 to 32 VDC (65-1007) Note: 65-1007 should not be used with 12V power sources
Avg. Standby Current (24VDC):	17mA Max
Avg. Current During Testing:	500mA Max
Avg. Alarm Current (24VDC):	38.5mA Max
Avg. Fault Current (24VDC):	8.5mA Max
Avg. Alignment Mode Current (24VDC):	28mA Max

Mechanical

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

Electrical (P/N 02-11499)

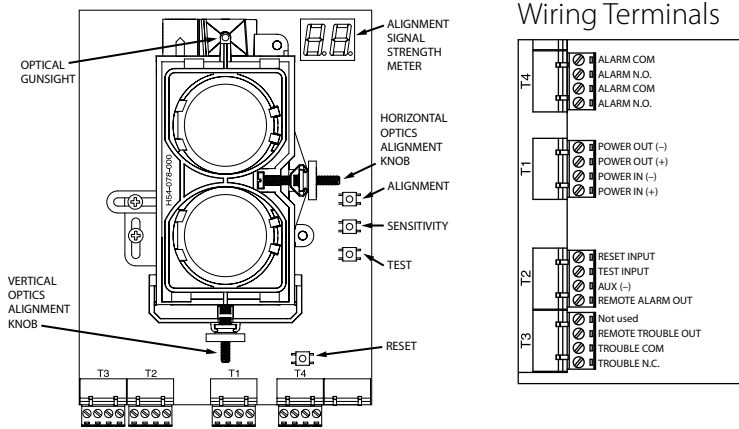
Voltage:	15 to 32V
Current:	92mA at 32V
Power Consumption:	1.6W @ 24V; 3W @ 32V

Electrical (P/N 02-11500)

Voltage:	15 to 32V
Current:	450mA Max at 32V (per reflector)
Power Consumption (Per Reflector):	7.7W @ 24V; 15W @ 32V (per reflector)

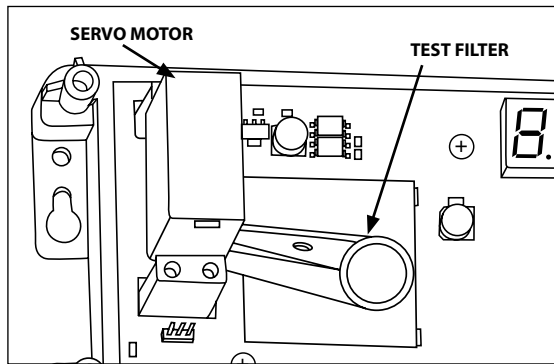
WIRING DIAGRAMS

65-1006 Parts (BEAM1224(S))



Activated Test Feature

65-1007 Only (BEAM1224S)



ORDERING INFORMATION

Fike P/N	Mfg. P/N	Description
65-1006	BEAM1224	4-Wire conventional beam smoke detector with 8" reflector
65-1007	BEAM1224S	4-wire conventional beam smoke detector with 8" reflector and integral sensitivity test
02-11496	BEAMLRK	Long range accessory kit (3) additional reflectors. (Required for applications in excess of 230 ft (70m))
02-11497	BEAMMK	Multi-mount kit (Provides ceiling or wall mount capability with increased angular adjustment for either the beam or reflector. When installed with the transmitter/receiver unit, 02-11498 must be used as well)
02-11498	BEAMSMK	Surface mount kit
02-3869	RTS451	Remote test station used to initiate the NFPA sensitivity test function
02-4998	RTS451KEY	Remote test station with key lock
02-11499	BEAMHK	Heater kit for transmitter/receiver unit (see electrical requirements)
02-11500	BEAMHKR	Heater kit for reflector (see electrical requirements)