



**SILENT  
KNIGHT**

by Honeywell

## SK-Beam and SK-Beam-T

### Single-ended Reflected Type Projected Beam Smoke Detectors

The SK-Beam and SK-Beam-T are uniquely suited for protecting open areas with high ceilings where other methods of smoke detection are difficult to install and maintain. Now there's even more power and flexibility available to the IntelliKnight family of products!

For more information about the IntelliKnight system, or to locate your nearest source, please call 1-800-328-0103.

#### Description

The SK-Beam and SK-Beam-T are addressable beam smoke detectors for use with Silent Knight IntelliKnight series fire alarm control panels (FACPs). The SK-Beam-T also includes an integrated sensitivity test feature.

Installation of the single-ended reflective design is much easier than dual ended projected beam detectors. Alignment is quickly accomplished using an optical sight and a two-digit signal strength meter incorporated into the SK-Beam and SK-Beam-T.

Listed for operation from -22°F to 131°F (-30°C to 55°C), the SK-Beam and SK-Beam-T can be used in applications to provide early warning in environments where temperature extremes exceed the capability of other types of smoke detectors.

The SK-Beam and SK-Beam-T consist of transmitter/receiver unit and one reflector. When smoke enters the area between the unit and the reflector it causes a reduction in the signal. When the smoke level reaches the predetermined threshold, the detector generates an alarm signal.

These beam smoke detectors have four 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 SK-Beam-T 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, System Sensor® PN RTS151, the motor is activated and moves the filter in the pathway of the light beam, which tests the detector sensitivity. This integral sensitivity test feature allows the user to quickly and easily meet the annual maintenance and maintenance and test requirements of NFPA 72.

#### Features

- 16 to 328 foot protection range
- Single-ended, reflective design
- Remote test station available
- User friendly alignment procedure
- Six user selectable sensitivity levels



#### SK-Beam and SK-Beam-T

- 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
- Rotary address switches for fast installation
- Paintable cover

#### Installation

The SK-Beam and SK-Beam-T transceiver/receiver can be mounted over a recessed junction box or surface mounted using the System Sensor surface mounting kit BEAMSMK. The reflector is surface mounted. For applications in which the reflector cannot be placed at the necessary angle, the multi-mounting kit is required System Sensor PN BEAMMMK.

#### Compatibility

The SK-Beam and SK-Beam-T are compatible with the following IntelliKnight FACP's:

5700  
5808  
5820XL  
5820XL-EVS

# Model SK-Beam and SK-Beam-T Beam Smoke Detectors

## Engineering Specifications

The contractor shall furnish and install where indicated on the plans, Single-ended Reflected Type Projected Beam Detector Silent Knight model SK-Beam or SK-Beam-T. The long range projected beam smoke detector is designed to provide open area protection. .

The detector shall consists of a transmitter/receiver unit and a reflector.

Three LEDs on the detector indicate the current status: a red LED for alarm, a yellow LED for trouble, and a blinking green LED for standby operation

### Specifications

#### Operating

Protection Range: 16' – 328' (5 – 100 m)

Adjustment Angle: +/-10° horizontal & vertical (optics move independent of the unit)

Sensitivity Levels: Level 1–25%; Level 2–30%; Level 3–40%; Level 4–50%; Level 5–30 to 50% ( Acclimate)  
Level 6–40 to 50%(Acclimate)

Fault Condition (Trouble): 96% or more obscuration blockage in alignment mode; improper alignment; self-compensation limit reached

Alignment Aid: Optical gun sight; integral signal strength indication; 2-digit display

LEDs: Normal–flashing green; Yellow–trouble; Red–alarm  
Test/Rest Feature: Integral sensitivity test filter (SK-Beam-T only); sensitivity filter (incremental scale on reflector); local test switch; local reset switch; remote test and reset switch (compatible with RTS151 and RTS151KEY test station)

#### Physical

Detector: 10" H x 7.5" W x 3.3" D  
(25.4cm x 19.1cm x 8.4cm)

Reflector for 16' – 230': 7.9" H x 9.1" W (20cm x 23cm)

Reflector for Beyond 230': 15.7" H x 18.1" W (40cm x 46cm)

Shipping Weight: 3.9 lbs (1.77 kg)

#### Environmental

Operating Temperature: -22°F – 131°F (-30°C – 55°C)

Humidity: 10% – 93% non-condensing

#### Electrical

Operating Voltage: 15 – 32 VDC

Standby Current (Avg): 2 mA max

Current During Testing (Avg): 500 mA max

Alarm Current: 8.5 mA max

Fault Current: 4.5 mA max

Alignment Mode Current: 20 mA

#### Accessories

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 for either the beam or the reflector. When installed with the transmitter/receiver unit, BEAMSMK must also be used.
BEAMSMK	Surface Mount Kit
RTS151	Remote Test Station. Used to initiate the NFPA sensitivity test function.
RTS151KEY	Remote Test Station with Key Lock
BEAMHK	Heater Kit for Transmitter/Receiver Unit. See electrical requirements in the Specifications.
BEAMHKR	Heater Kit for Reflector. See electrical requirements in the Specifications section.



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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 Silent Knight 12 Clintonville Road, Northford, CT 06472-1610 Phone: (800) 328-0103, Fax: (203)484-7118. For Technical Support, Please call 800-446-6444.  
[www.silentknight.com](http://www.silentknight.com)

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