NOTIFIER®
by Honeywell

6500 Series Non-Addressable Beam Detectors

Data Sheet





The 6500R and 6500RS are conventional reflector type linear optical beam smoke detectors designed to operate as a component of an non-ddressable fire alarm system. It operates primarily on the principle of light obscuration utilising infra-red light. Optical beam smoke detectors are particularly appropriate for protecting buildings with large open spaces such as warehouses, atriums etc.

Features

- Combined transmitter and receiver unit
- Suitable for connection to a conventional zone
- Range 5 -100 metres
- 4 fixed sensitivity/threshold adjustment
- 2 automatic variable sensitivity modes
- Numerical indicators to aid beam alignment
- Fault and alarm LED indicators
- Integral horizontal and vertical beam alignment
- Drift compensation
- Complies with EN54-12
- Unique servo operated test filter (6500RS)

The 6500R and 6500RS detectors are combined transmitter/ receiver units, which can be directly connected to a non-addressable zone and require a resetable 24Vdc power supply. 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.

Installation

Each beam detector set is supplied with a reflector for up to 70 Metres measuring just 20cm's x 23cm's. A kit comprising of 3 additional reflectors is also available, extending the range to 100 Metres.

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 6500RS features a unique remote test capability that fully tests 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. This allows a test facility to be placed at low level, negating the requirement to gain access to the typically high level beam to perform routine testing.

The beam detector uses advanced algorithms to sample the environment and to adjust its sensitivity and alarm thresholds automatically. This provides optimum sensitivity within an unstable environment. The detector incorporates automatic drift compensation, whereby 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.

This document is not intended to be used for installation purposes. Every care has been taken in the preparation of this document but no liability can be accepted for the use of the information therein. Design features may be changed or amended without prior notice.
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ISO9001
Design, Manufacture and Supply to Quality Management Systems Certified to ISO9001:1994

Quality Systems Certificate No. 154 Assessed to ISO9001

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Specifications

6500 Series Non-Addressable Beam Detectors

Mechanical Specification

- Dimensions:
  - Height: 253 mm
  - Width: 193 mm
  - Depth: 84 mm
- Weight: 1.77 kg
- Wiring: 1mm² to 2.5mm²
- Adjustment Angle: ±10° Horizontal and Vertical
- Range: 5 to 70m
  70m to 100m using optional 6500-LRK/BEAMLRK
- Sensitivity: Level 1: 25% Obscuration
  Level 2: 30% Obscuration
  Level 3: 40% Obscuration
  Level 4: 50% Obscuration
  Level 5: 30% to 50% Adjusting (Acclimate)
  Level 6: 40% to 50% Adjusting (Acclimate)
- Maximum angular misalignment: Detector: ± 0.5°
  Reflector: ± 10°

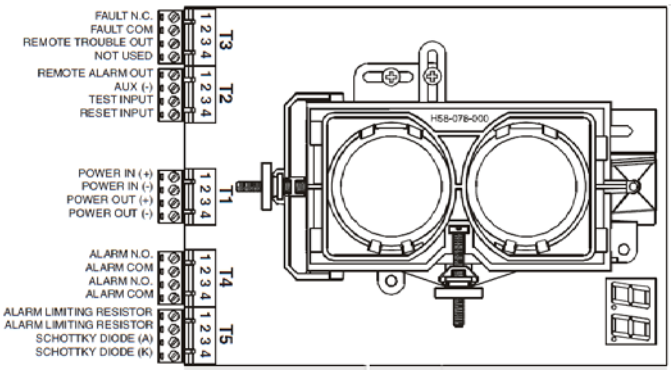
Electrical Specification

- Current Consumption
  - Typical Standby : 17mA @ 24Vdc
  - Maximum Fault Current : 8.5mA @ 24Vdc
  - Maximum Alarm Current : 38.5mA @ 24Vdc
  - 6500RS Test Mode: 500mA peak
- Relay Contact Ratings: 0.5A at 30 Vdc
- Remote Output (Alarm):
  - Voltage: 15 to 32VDC dependent on supply
  - Current: 6mA to 15mA, Limited by 2.2KΩ Resistor
- Operating Voltage:
  - 6500 : 10.2 to 32Vdc (24Vdc Nominal)
  - 6500RS : 15 to 32Vdc (24Vdc Nominal)

Environmental Specifications

- Operating temperature -30°C to +55°C
- Relative humidity: 10% to 93%, non-condensing
- Ingress Protection (IP) Rating: IP54





Product Range at a Glance

		Part Number
	Conventional reflective IR beam detector, complete with reflector for up to 70 Metres. Use BEAM-LRK for 70 to 100 Metres.	6500R
	Conventional reflective IR beam detector, complete with reflector for up to 70 Metres. Use BEAM-LRK for 70 to 100 Metres. Unit supplied with servo test facility.	6500RS
	Surface Mount Kit for IR reflective beam. Allows direct surface cable entry.	6500-SMK
	Multi Mount Kit for IR reflective beam. Provides ceiling and wall mount swivel bracket. Note : requires BEAM-SMK.	6500-MMK
	Long range reflector kit for 70 to 100 metres.	BEAMLRK
	Remote test key switch for beam detectors	6500RTS-KEY
	Heater kit for beam unit	BEAMHK
	Heater kit for reflector unit	BEAMHKR

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