

# I-9105R

## Intelligent Reflective Beam Detector



### Description

I-9105R Intelligent Reflective Beam detector is addressable reflective infrared beam smoke detector that can be used as Addressable or Conventional. With excellent built-in micro-processor, the detector can carry out system adjustment, drift compensation of ambient data, and judgment of fire and fault through fixed algorithm. The sensitivity of the detector can be set through hand held programmer in field, to suit different application conditions. The detector is suitable to historical buildings, warehouses, large storages, shopping malls, leisure centers, exhibition halls, hotel lobbies, printing houses, clothing factories, museums and prisons

### Features and Benefits

- Wide operating voltage range, large monitoring areas
- Combination of the emitting and receiving part makes mounting easy and optical pathway accurate
- Built-in microprocessor enables intelligent judgment about fire alarm and fault
- The detector can calibrate easily, which ensures a single person complete adjustment in short time. It's also convenient to operate
- Self-diagnostic function can monitor the internal fault

- Drift compensation for factors changing, such as a certain of dust accumulation, positional excursion and ageing transmitter
- Electronically addressed by programmer
- Two sensitivity levels can be set in field
- Attractive and decent appearance

### Terminals and Installation Holes

There are four terminals with marks on the base.



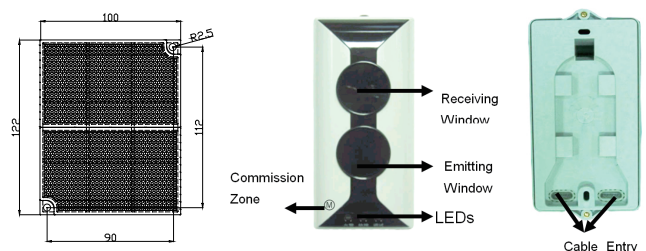
D1 & D2: 24VDC power supply, non-polarized

Z1 & Z2: Loop connection for addressable mode, non-polarized

K11 & K12: Alarm output, normally-open dry contact

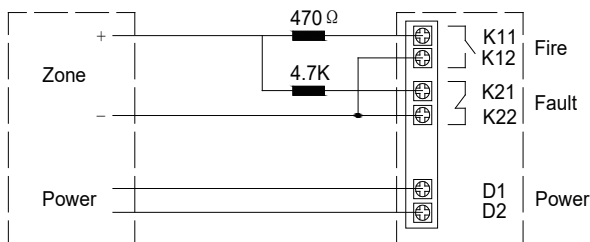
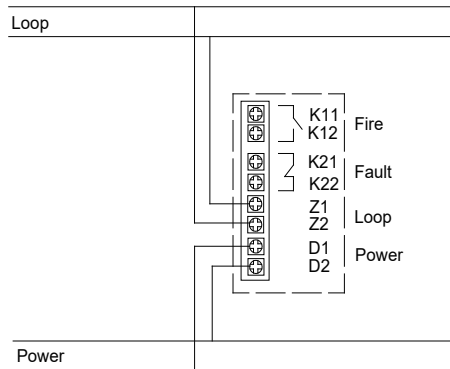
K21 & K22: Fault Output, normally-closed dry contact

Below figures show the detector appearance.



## Application

The typical wiring diagram of addressable mode and conventional mode are shown below.



The detector must be used together with reflector(s). The quantity of reflector(s) to be used (1 or 4) depends on the distance from the detector.

Sealing the gaps by glue, the protection rate can reach IP66.

## Recommended Cabling

1.5mm<sup>2</sup> above fire cable connecting with D1 and D2.  
1.0mm<sup>2</sup> or above twisted pair connecting with Z1, Z2, K11, K12, K21, and K22. Cross section for earth cable should not be less than 1.0 mm<sup>2</sup>, but subject to local codes.

## Certificates and Compliance

- Standards: EN54-12: 2015
- Certifications: LPCB

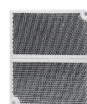
## Technical Specification

Operating Voltage	Loop 24VDC (15V~28V)
Commission current	≤20mA
Standby current	≤12mA
Alarm current	≤22mA
Loop Voltage	24V (15V~28V)
Angle of Adjusting	-6° ~ +6°
Maximum angular misalignment	±0.5°
Sensitivity Level	Level 1: 1.6dB Level 2: 2.3dB
Operating Environment	Temperature: -10°C ~ +50°C Relative Humidity ≤95%, non condensing
Length of Optical Pathway	8m~100m
Monitoring Area	Maximum monitoring area: 14 x100 =1400m <sup>2</sup> Maximum width: 14m
Material and Color of of Enclosure	ABS, Gray
Dimensions	206mm X 95mm X 95mm
Ingress Protection Rating	IP20 without glue-seal IP66 through glue-seal treatment
Weight	450g

## Ordering Information and Compatible Products

Part No.	I-9105R
Device Name	Intelligent Reflective Beam Detector
Product No.	10102694
Compatible Products	GST100 Intelligent Fire Alarm Control Panel GST200-2 Intelligent Fire Alarm Control Panel GST200N Intelligent Fire Alarm Control Panel GST- IPF8 Intelligent Fire Alarm Control Panel

## Accessories and Tools



Part No.: I-9105R Reflector  
Device Name: Reflector  
Product No.: 10100905



Part No.: P-9910B  
Device name: Handheld Programmer  
Product No.: 10104894