I-9105R
Intelligent Reflective Beam Detector

General

The I-9105R is a reflective infrared beam smoke detector that may be used in either addressable or conventional operating modes. Being microprocessor based, the detector offers extensive algorithms for analysis and decision making. Taking ambient operating conditions into consideration, system adjustments such as drift compensation and alarm and fault analysis are automatic. The sensitivity of the detector is adjustable to suit various application conditions.

Operating Modes

Addressable Mode:

When connected with an addressable GST fire alarm control panel (CIE), the I-9105R automatically switches to addressable mode and reports its information through the addressable loop. In addressable mode its address may be configured between 1 and 242 as is common to with all GST addressable devices
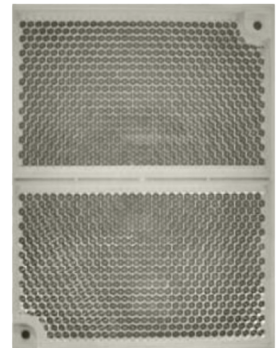
Conventional Mode:

When the I-9105R is not connected with an addressable GST CIE, the detector automatically switches to conventional mode. In conventional mode fire and fault information is reported via potential free contacts.

Installation

The number of reflector in a system is varied depending on the required operating distance (range) of the detector. Optical reflectors from 1 to 4 provide an effective range of the detector between 8 and 100 m. These are supplied with the beam. The address (when used in a GST addressable application) as well as the operating modes and sensitivity of the I-9105R is programmed with the standard GST hand held programmer (P-9910B).

Applications

The I-9105R is particularly suitable for use in historical buildings, warehouses, large storage areas, shopping malls, leisure centres, exhibition halls, hotel lobbies, printing houses, clothing factories, museums and prisons.

Details

- Wide operating voltage range
- Large protection areas
- Combination of transmitter & receiver in one housing allows easy optical alignment
- Intelligent microprocessor based decision making on fire and fault statuses
- Easy one person installation & operation due to simple calibration and setup processes
- Self-diagnostics for monitoring & reporting internal failures
- Automatic drift compensation compensates for changing environmental conditions, dust and dirt accumulation, building movement and changing internal component specifications due to ageing
- Electronic addressing and setup
- Two sensitivity levels
- Optical path designed with strong anti-interference abilities
- SMT electronic design ensures consistent high quality manufacturing
- Small, aesthetic design

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Technical specifications

General

Status indication	LEDs
Compatibility	GST addressable systems, all conventional systems
Connectivity	Loop or contacts

Electrical

Operating voltage	15 to 28 V (24 VDC Nominal)
Current consumption	≤20 mA (Commissioning) ≤8 mA (Standby) ≤12 mA (Alarm)

Detection

Detection principle	Optical light scatter
Sensitivity	1.61 or 2.31 dB
Coverage area	1400 m²
Zone length	<100 m
Range	8 to 100 m
Lateral detection	7 m
Adjustment angle	-6° to +6°
Misalignment tolerance	±0.5°

Output

Output quantity	2
Output type and rating	Alarm, Fault

Physical

Physical dimensions	95 x 206 x 95 mm (W x H x D)
Shipping weight	450 g
Colour	Grey
Mounting type	Wall mount
Cable entries	2
Material (body)	ABS
Terminals	8

Environmental

Vandal proof	No
Operating temperature	-10 to +50°C
Relative humidity	≤95%, non condensing
Environment	Indoor
IP rating	IP20 IP66 with glue seal

Standards & regulation

Compliancy	CE, REACH, RoHS 2, WEEE
Certification	CPR
Standards	EN54-12

Carrier