NC-DBO

Conventional reflective beam detector

General

The DC-9105E is a reflective infrared beam smoke detector for use in conventional fire detection systems. 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 mode

When connected to a compatible conventional fire alarm system, fire and fault information is reported via potential free relay contacts that can be easily interfaced into the system.

Installation

The number of reflectors in a system varies depending on the required operating distance (detection range) of the detector. Optical reflectors from 1 to 4 provide an effective range of the detector between 5 and 100 m. Four reflectors are supplied with the beam. The detection range of the beam can be selected from 4 levels with the standard GST hand held programmer (P-9910B). For very short range detection (>10 m), a non reflective mask (NRM9105) is recommended to attenuate the reflector.

Applications

The DC-9105E 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 area
- Combination of transmitter & receiver in one housing allows for easy installation and optical alignment
- Intelligent microprocessor based decision making on fire and fault statuses
- Easy alignment and commissioning with onboard laser and signal level indication
- 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
- Onboard N/O fire and N/C fault dry contact outputs for easy supervision
- Four selectable sensitivity levels for wide application coverage

NC-DBO

Conventional reflective beam detector

Technical specifications

General

Status indication	LEDs
Compatibility	All fire alarm systems with input supervision
Alarm levels	4
Connectivity	Relay contacts

Electrical

Power supply type	24 VDC
Operating voltage	18 to 28 VDC (24 VDC nominal)
Current consumption	≤20 mA (Commissioning) ≤12 mA (Standby) ≤22 mA (Alarm)
Cable specification	>1.5 mm² for DC power, >1.0 mm² twisted for others
No. of cable cores	2
Terminals	6

Detection

Detection principle	Optical light scatter
Monitoring	Alarm threshold, Fault
Sensitivity	1.3 to 2.8 dB, (26 to 48% OBS) selectable
Coverage area	<1400 m²
Zone length	<100 m
Range	5 to 100 m
Lateral detection	14 m
Adjustment angle	-6 to +6°
Misalignment tolerance	±0.5°

Output

Output quantity	2
Output type and rating	Alarm, Fault (2A @ 28 VD)

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

Environmental

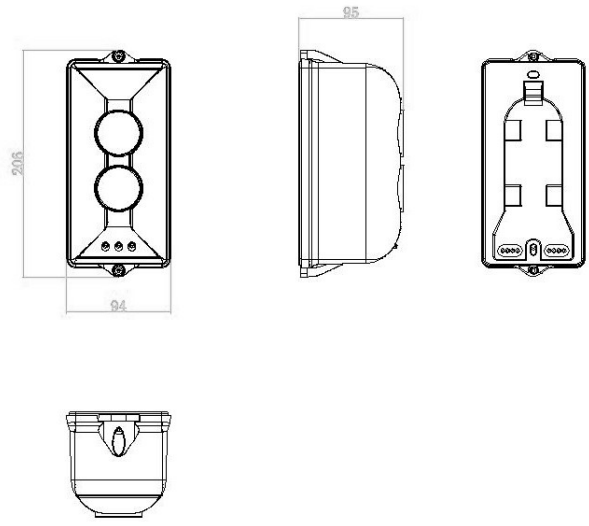
Vandal proof	No
Operating temperature	-10 to +50°C
Storage temperature	-20 to +60°C
Relative humidity	10 to 95% noncondensing
Environment	Indoor
IP rating	IP20 IP66 with silicone seal

Regulatory

Compliancy	CE, REACH, RoHS 3, WEEE
Certification	CPR
Voluntary marks	BOSEC
Standards	EN54-12

Compatible products

Category	Reference	Description
Detection device	NC-D-PT	Conventional hand held device programmer
Mounting Accessories	NRM9105	Non-reflective mask for 9105 series beam detectors



As a company of innovation, Kidde Global Solutions reserves the right to change product specifications without notice. For the latest product specifications, visit firesecurityproducts.com online or contact your sales representative.

Last updated on 1 October 2026 - 13:15