# 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

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## 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)<br>≤12 mA (Standby)<br>≤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 | Grå |
| Mounting type | Vægmontering |
| Cable entries | 2 |
| Material (body) | ABS |

### Environmental

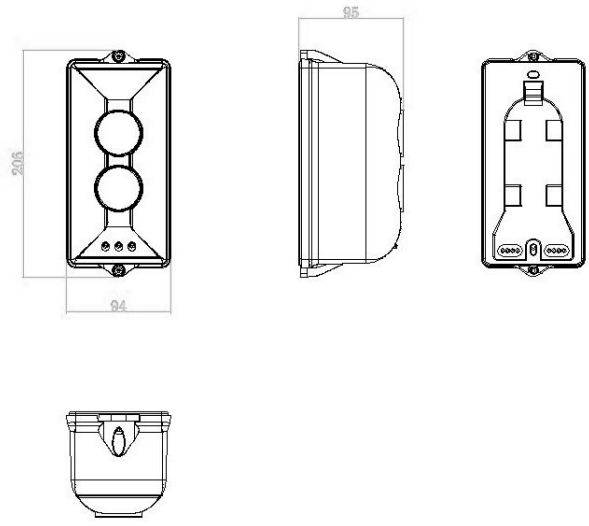
| | |
|---|---|
| Vandal proof | No |
| Operating temperature | -10 to +50°C |
| Storage temperature | -20 to +60°C |
| Relative humidity | 10 to 95% noncondensing |
| Environment | Indendør |
| IP rating | IP20<br>IP66 with silicone seal |

### 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 |




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Last updated on 1 October 2026 - 13:15