Intelligent **Optical Smoke** Detector

I-9102

548d(cl-5)   0832-CPD-0524

Description

The I-9102 Optical Smoke Detector is the ideal device for most application due to its excellent linear response to a wide variety of different type of smoke patterns. The unit meets the sensitivity requirement of EN 54 part 7, European Standard and approved by Loss Prevention Certificate Board (LCPB).

Aesthetically pleasing with a low profile design, unobtrusive to complement modern building designs. The unit incorporates an intelligent processor that provides Algorithm map, Built-in A/D converter, Drift compensation, Self Diagnosis and history log.

The integral microprocessor analysis the signal according to the factors such as signal strength and rate of increase, then confirms these pattern with the pre-programmed fire scenarios and smoke patterns for a faster and safer response. By intelligent analysis, the smoke detection sensitivity will be automatically adjusted according to temperature change, providing a rapid response.

Secure and speedy communication through the on board processor enables the detector to make its own decision, resulting in greater automation. The sensor and the panels utilized fuzzy logic providing an almost limitless cause and effect scenarios.

Drift compensation, to monitor for the long term changes caused by aging, humidity, temperature, dust, etc. constant monitoring and self adjusting, the I-9102 updates sensitivity base line for its sensing element. Even when the detector raises a warning advising that it requires cleaning, the sensitivity remains the same as the day it was installed.

Electronic addressing can be done through Handhold Programming device (P-9910B), purchased separately.
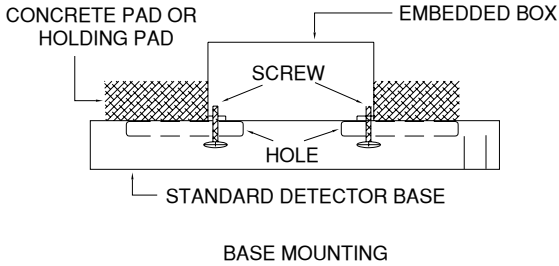
Features and Benefits

- Built in 8 bit microprocessor
- Algorithm maps for faster response and false alarm rejection
- Analogue sensing
- Secure and speedy communication
- Intelligent Linear Drift compensation
- Self diagnosis and history log
- Electronic addressing
- Sensing chamber for exceptional dust proof ability
- Twin LED for 360º vision
- Built-in remote indicator output
- Low profile design

Technical Specifications

- Standard: EN54-part7
- Approval: LPCB,CE-CPD
- Protection rating: IP 23
- Operating Voltage: 24Vdc Loop voltage
- Operating Current: 5mA with remote LED indicator
- Standby Current 0.8mA
- Operating Temp: -10°C to +50°C
- Relative humidity: 95%
- Sensitivity is set within the range stipulated by LPCB standard
- Application: Indoor use
- Visual Indicator: twin LED, Red (lit steady when alarm, 3 sec interval blinking at normal state)
- Material and colour: ABS, white (RAL 9016)
- Wiring: 1 pair polarized
- Dimensions: diameter 10cm; height 5cm

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D A T A S H E E T
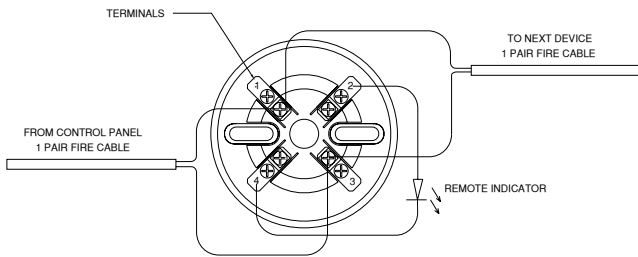Note: Specifications are subject to change without notice.

Standard Base

The detector is mounted using our standard base DZ-03. Multiple-direction design allows easy direction adjustment. Suitable for surface mount only, mount on standard 1gang electrical back box with a mounting hole of 65mm spacing

CONCRETE PAD OR HOLDING PAD
EMBEDDED BOX
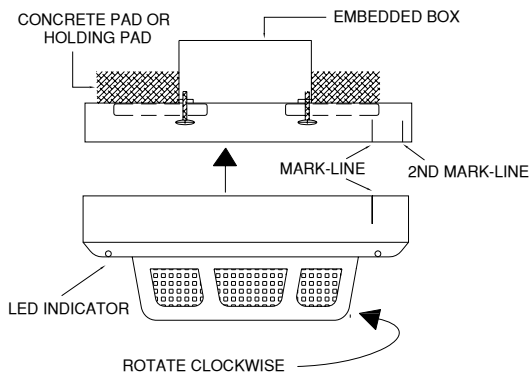SCREW
HOLE
STANDARD DETECTOR BASE

BASE MOUNTING

Wiring and Connection

Connect the wires to the required terminal according to the wiring diagram below; terminal 1(+) and terminal 3(-) for the loop; connection of remote indicator output is on terminals 2(+) and 4(-). The cable must be fire rated type and the size depends on the distance and application. Recommended cable size 1.5mm² fire rated min 2 hours

TERMINALS
TO NEXT DEVICE 1 PAIR FIRE CABLE
FROM CONTROL PANEL 1 PAIR FIRE CABLE
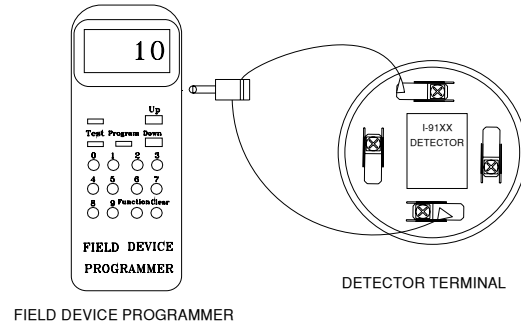REMOTE INDICATOR

Detector Installation

The Intelligent optical smoke detector should be installed in compliance with all local codes having a jurisdiction in your area or BS 5389 Part 1 and EN54. Before installation verify the proper wiring and base are firmly mounted to prevent detector damage before the installation. Point the detector in the base by the mark-line and secure the detector in that position by rotating it clockwise until it reaches the next mark line. Do not remove red plastic dust cover until the final handover is done.

CONCRETE PAD OR HOLDING PAD
EMBEDDED BOX
MARK-LINE   2ND MARK-LINE
LED INDICATOR
ROTATE CLOCKWISE

Programming

The address of the detector can be programmed using GST handheld programmer (P-9910B), purchased separately. Connect the two wires of the handheld programmer to terminals 1 and 3 (no polarity) of the detector.

10
Up
Test Program Down
0 1 2 3
4 5 6 7
8 9 Function Clear
FIELD DEVICE PROGRAMMER

I-91XX DETECTOR

DETECTOR TERMINAL

FIELD DEVICE PROGRAMMER

Selection of compatible Control Panels

Compatible with all GST Intelligent Fire Alarm Panels GST100, GST200-2 Series and GSTIFP8.

Ordering Information

Part Number: I-9102
Description: Intelligent Optical Smoke Detector
Weight / Kg.: 0.123
Pack Qty. per Box: 100

Accessories

Part Number: DZ-03
Description: Standard Detector Base
Weight / Kg.: 0.050
Pack Qty. per Box: 300

Part Number: C-9504
Description: Base Mount Circuit Isolator
Weight / Kg.: 0.010
Pack Qty. per Box: 120

Part Number: I-9406
Description: Addressable Sounder Beacon Base
Weight / Kg.: .20
Pack Qty. per Box: 30

Part Number: C-9314Pp
Description: Remote Indicator
Weight / Kg.: 0.03
Pack Qty. per Box: 270

MANUFACTURED IN ACCORDANCE WITH

LPCB
UKAS QUALITY MANAGEMENT 007
ISO9001 Ref .NO.548
CE

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D A T A S H E E T
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