



AX-9SL

Analog Addressable Smoke Detector

Features:

- Dual LED alarm indicators for 360° viewing angle
- Microcontroller based design with non-volatile memory
- Advance sensor logic circuit with analog convertor for smoke level discrimination algorithms
- Unique sensing chamber for smoke detection, with wrap around stainless steel wire mesh for protection against dirt, dust and flying insects
- Built-in remote LED (Light Emitting Diode) driver
- Standard and isolator base
- Soft or hard addressing programming mode

Principles of operation:

The operation of Mictron Series AX Photoelectric Smoke Detector is based on the phenomenon that the amount of light incident upon a photodiode by an LED, and it varies proportionately to the density of the smoke particles within the detection region.

The detection chamber consists of an LED and photo-diode arranged in such a manner that no light emitted by the LED can normally reach the photo-diode.

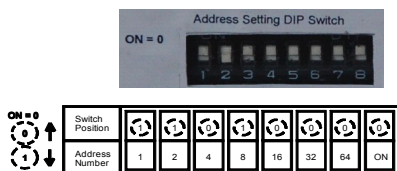
When smoke particles enter the chamber, the light is scattered and some of the light falls on the photo-diode. This is converted into electronic signal (analog value) proportional to the intensity of the light, the signal is transmitted to the main fire alarm panel for further processing.

The LED on the detector is controlled by the main fire alarm panel to indicate varies conditions.

Programming:

The address of the AX devices can be set by a built-in DIP switch or a portable tester as followed:

Hard Addressing:



Example: switch 1 & 4 is off, all other switches are on, the address is 1+8=9

Each loop can interface up to 126 devices.
(the address 0 & 127 is reserve for manufacturer debugging usage)

Soft Addressing:



The tester has a built-in detector base and wire terminals to set address of all AX devices. It can also be used as a viewer to read the analog value of the devices, as well as turning on/off the LED indicator or output.

LED Indication:

Normal condition: The LED will flash once every 2-4 seconds when polled by the main alarm panel in standby mode.

Address Crash condition: The LED will flash twice or more within 2 seconds to indicate that there is another device (or devices) on the loop with the same address.

Alarm condition: The LED will be latch on in alarm condition as instructed by main alarm panel.

Technical Specification:

Brand	: Mictron
Model	: Series AX
Part Number	: AX-9SL
Quiescent Current	: 500 uA
Alarm Current	: 4mA
Operating Voltage	: 17-28V DC
Type	: Photoelectric
Sensor Source	: Infrared
Smoke Sensitivity	: 0.09-0.14 dB/m
Temperature Range	: -10 to 50°C
Operating Humidity	: 95% RH (Non-condensing)
Output Driver	: 2mA (open collector)
Weight	: 150g with base
Material	: ABS
Dimension	: 100mm X 46mm with base
Colour	: White
Approved Standard	: EN54-7,DIFT
Certificate Number	: 0845-CPD-232,1620

Optional Isolator Base (AX-9SCi):



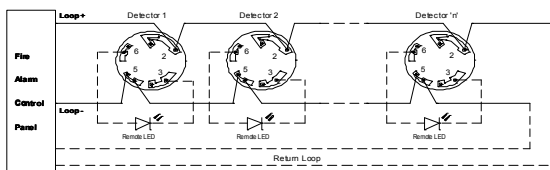
Isolator base may be use to replace normal base, the incoming wire & the out going wires will be cut off if a short circuit is detected.

Not more than 20 isolators base should be installed for a loop of devices.

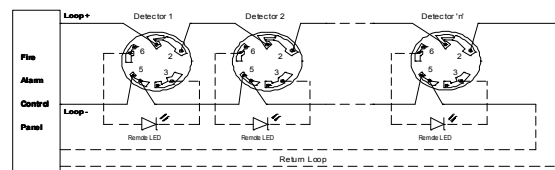
Dimension:



Wiring Detail:



Wiring Diagram of Detectors to Fire Alarm Control Panel (Parallel Connection)



Wiring Diagram of Detectors to Fire Alarm Control Panel (IN-OUT Connection)

Ordering Information:

<u>Part Number</u>	<u>Description</u>
AX-9SL	Smoke Detector With Base (1 set)
AX-9SL-H	Smoke Detector Head Without Base
AX-9SL-B	Detector Standard Mounting Base
AX-9SCi	Detector Isolator Mounting Base

Micro-CTL reserves the right to alter specification of its product without prior notice