Product Data

ZITON

PS1106.1

Linear beam smoke detectors have been developed for use in areas where point type detectors would be difficult to install and maintain.

Two versions are available, the ZBMR conventional and the ZP7BMR addressable, both available with detection ranges of either 50 or 100 metres

A transmitter and receiver are contained in one enclosure. The transmitter emits an invisible infrared beam, which is reflected back to the receiver, by a prism mounted directly opposite and in clear line of sight. The presence of smoke obscures the beam and reduces the signal strength detected at the receiver.

Alarm thresholds of 25%, 35% and 50% obscuration are selectable, making the detector suitable for a wide range of building environments. The fire output can be set to latch, only cancelled by resetting the device, or auto reset where the detector is reset automatically 5 seconds after the received infrared signal has recovered to a level above the alarm threshold.

The detector and the reflecting prism are installed on opposite walls of the protected area, usually between 0.3 and 0.6 metres below ceiling height. With unique alignment features, the equipment is easy to install, provides high stability and freedom from false alarms.

ZBMR detectors incorporate continuous monitoring of both electrical and optical faults. If the infrared beam is obscured rapidly to a level above 90%, for approximately 10 seconds the condition is seen as a fault. Long-term degradation of signal strength is monitored and adjusted automatically.

Installed under flat horizontal ceilings, a single unit provides satisfactory smoke detection up to 7.5 metres either side of the beam axis. For larger areas multi detector systems can be installed.

The ZP7BMR addressable version is connected directly to the ZP3 loop wiring and is configured with it's own address which the control panel poles every two seconds.
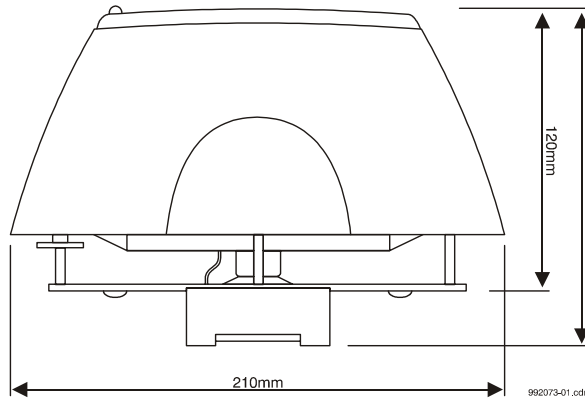
The ZBMR detector can be included in any conventional zone (subject to the availability of an appropriate DC power supply).
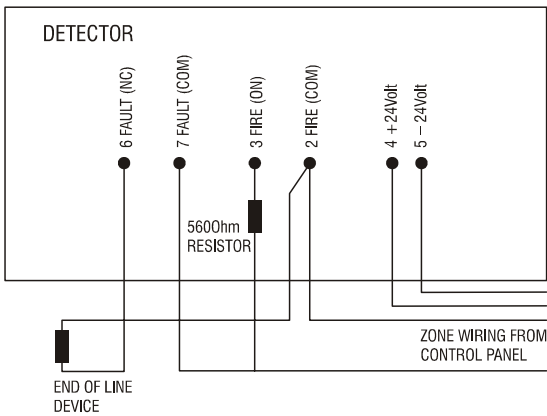
ZBMR/ZP7BMR

Reflective Beam Smoke Detectors

- **Single installation and maintenance point**
- **Addressable and conventional versions**
- **50 or 100 metre detection ranges**
- **Unique simple alignment**
- **Selectable alarm thresholds**
- **Latching or auto reset fire output**
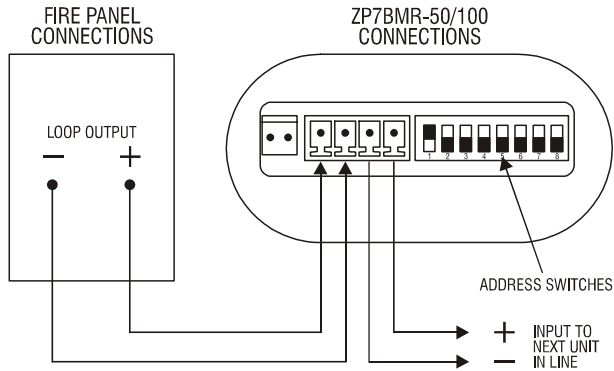- **Automatic contamination compensation**

Dimensions

120mm
140mm
210mm
992073-01.cdr

Wiring Diagram

DETECTOR

6 FAULT (NC)
7 FAULT (COM)
3 FIRE (ON)
2 FIRE (COM)
4 +24Volt
5 – 24Volt

560Ohm RESISTOR

END OF LINE DEVICE

ZONE WIRING FROM CONTROL PANEL

ZBMR CONVENTIONAL WIRING

FIRE PANEL CONNECTIONS

LOOP OUTPUT
– +

ZP7BMR-50/100 CONNECTIONS

ADDRESS SWITCHES

+ INPUT TO
– NEXT UNIT IN LINE

ZP7BMR ADDRESSABLE WIRING   993196-01.cdr

Note: *For headout monitoring of point type detectors connected to the same zone wiring, a Schotkey diode must be fitted across the fault terminals.*

Specification

Model No.	Description
ZBMR-50	Conventional, 50 metre range
ZBMR-100	Conventional, 100 metre range
ZP7BMR-50	Addressable, 50 metre range
ZP7BMR-100	Addressable, 100 metre range
Specification	EN54 Pt12
Compatibility	
ZBMR-50/100	All ZC conventional systems
ZP7BMR-50/100	All ZP analogue addressable systems
Mounting	Single prism with two screws4 x prism with 2 screws each
Wiring	
ZBMR-50/100	Power – 2 core (24V dc) fire protected zone
ZP7BMR-50/100	ZP Loop wiring
Monitoring:	Signal lost, signal strength, adjustment limit exceeded
Indication	Fire, fault and power on, LEDs for beam alignment
Operating voltage	10.2 – 30 volts DC
Current (quiescent)	
ZBMR-50/100	<4mA (no LEDs illuminated)
ZP7BMR-50/100	5mA (no LEDs illuminated)
Current (alarm)	<15mA

Switched outputs	Fire – normally open contact, closes on fire Fault – normally closed contact, closes on fault
Reset	
ZBMR-50/100	Power down reset time >5 seconds, auto reset selectable
ZP7BMR-50/100	Via ZP loop
Environmental:	
Application	Indoor use
EN60529 rating	IP54
Temp range	-30°C to +55°C
Humidity range	up to 95% RH (non condensing)
EMC	CE marked (EEC89/336)
Construction:	
Material	Chassis – steel
	Enclosure – flame retardant ABS
Dimensions	210mm (H) x 130mm (W) x 120mm (D)
Space requirement:	220mm(H) x 155mm(W) +130mm door clearance to right 190mm(D)
Colour	White – enclosure, Black - lens cover
Weight	
ZBMR-50/100	1200g
ZP7BMR-50/100	740g

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