

APPLICATION NOTE

Document Title Interfacing SPB-ET Beam Detectors

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INTERFACING SPB-ET BEAM DETECTORS

Hochiki's optical beam smoke detector (SPB-ET) operates from a conventional zone but can be interfaced on to an addressable system via a zone monitor. It is supplied complete with an installation kit that gives the user various options for easy installation onto conventional and addressable systems. The installation kit is mounted on a standard M.K back box which can be surfaced or flush mounted, the field connections are via a two part connector which allows the installer to make all connections without risk to the PCB. The commissioning engineer can install the PCB and select the type of line continuity that is required.

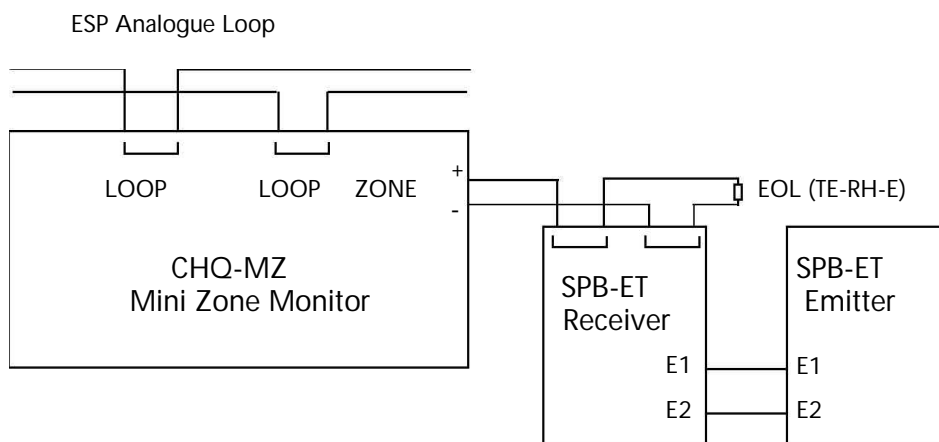
Product Features

- The SPB-ET is mounted on a standard M.K back box (41 mm deep).
- Supplied with an interface kit for easy installation.
- Beam detector is fitted with a 470 ohm fire resistor.
- Both zener, schottky diode and open circuit options are selectable.
- The SPB-ET is powered directly from the zone.

Interfacing the SPB-ET onto Hochiki's ESP protocol

This is undertaken by using Hochiki's Mini Zone Monitor (CHQ-MZ) as shown below.

Fig. 1



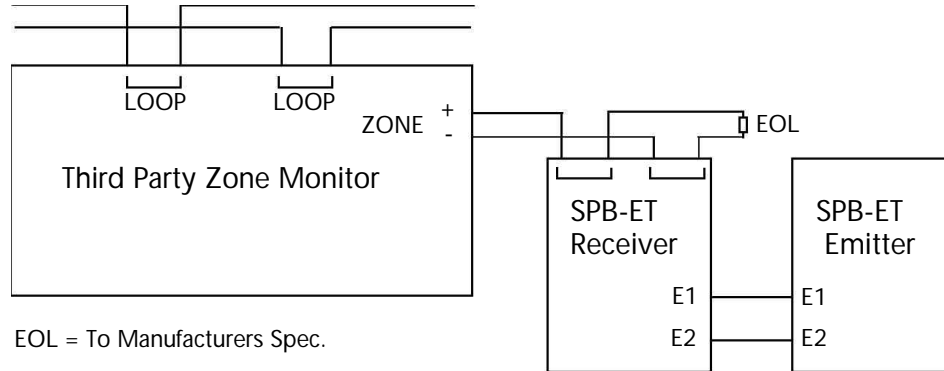
Notes

For the above configuration the link settings on the interface kit must be in the open circuit mode (jumpers LK1, LK4 and LK6 are all made, all other jumpers are removed).

Interfacing the SPB-ET onto a third party analogue addressable system

The SPB-ET can be interfaced on to a third party analogue system by using a zone monitor, this is the preferred solution when interfacing, as it uses the standard interface kit which provides line continuity options.

Third Party Analogue Loop



When the above method is being used the third party conventional zone monitor must be capable of generating a fire condition when 470 ohms is placed across the zone, to ensure the SPB-ET enters the fire condition and resets correctly the zone monitor must be capable of the following specifications.

| CONDITION | VOLTS |
|--|---------|
| Zone voltage range | 18v-30v |
| Min. zone voltage with 470 ohm across the zone (Alarm) | 5v |
| Zone voltage at reset | 0v |



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