

ZONE MONITOR WITH ISOLATOR



Part Number 55000-845IMC

Zone Monitor with Isolator, order code 55000-845IMC

The Context Plus XP95 Zone Monitor powers and controls the operation of a zone of up to 20 Series 65 conventional fire detectors from a loop of Context Plus analogue addressable detectors and interfaces.



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FEATURES

The Zone Monitor is factory preset to return an analogue value of 16 when all detectors on the zone are in quiescent state and 64 when a detector changes to the alarm state. The Zone Monitor latches in the alarm state.

5.1k Ω end-of-line resistor is fitted to detector cables for open- and short-circuit faults. Alternatively, an active end-of-line monitor may be used in conjunction with diode bases and a capacitor of up to 50 μ F fitted at the Zone Monitor wiring terminals.

In either case an analogue value of 4 is transmitted during open- or short-circuit faults. The Zone Monitor is fitted with a bi-directional short circuit isolator and will be unaffected by loop short circuits on either the loop input or loop output.

ELECTRICAL CONSIDERATIONS

The Zone Monitor is loop powered and operates at 17–28V DC with protocol pulses of 5–9V.

MECHANICAL CONSTRUCTION

The Zone Monitor is supplied with a backbox for surface mounting, and is also available without the backbox for flush mounting. Both versions are for indoor use only.

Two LEDs, one red and one yellow, are visible through the front cover of the enclosure.

The red LED is illuminated to indicate that a fire alarm condition has been detected on the zone wiring.

The yellow LED is illuminated whenever the built-in isolator has sensed a short circuit loop fault.

NOTES ON USE

1. Zone voltage is regulated to $19 \pm 1V$ for any loop voltage greater than 22V. If the loop voltage falls below 22V, the zone voltage is approximately 1.5V below the loop voltage. It is important to ensure that under worst-case conditions, the zone voltage is above the minimum operating voltage for the conventional detectors.
2. Alarm conditions are latched internally by the Zone Monitor. It is therefore necessary to reset the alarm even if non-latching conventional detectors are used.
3. Manual call points can be located at any point in the zone wiring if active end-of-line monitoring with diode detector bases is used. If a 5.1k Ω resistor is used for monitoring, manual call points must be connected between the Zone Monitor and the first detector.

Technical Data

Context Plus line voltage: 17V–28V DC

Zone voltage (loop voltage $\geq 22V$): $19V \pm 1V$

Zone voltage (loop voltage $< 22V$): Loop voltage -1.5V

Maximum current consumption at 24V (5.1k Ω EOL):

Switch-on surge, max 150ms: 3.5mA

Quiescent: 4mA + detector load

Alarm: 11mA (19mA when increased current enabled)

Short circuit: 11mA

End of line resistor value: 5.1k $\Omega \pm 5\%$ 1/3W

Stabilisation time on power up: 4 seconds

Maximum capacitor on zone terminals: 5 μ F

Operating temperature: $-20^{\circ}C$ to $+70^{\circ}C$

Humidity (no condensation): 0–95%RH

Shock, vibration and impact: to GEI 1-052

IP rating: 54

Radiated and conducted RF emissions to: BS EN50081-1 & 2

Radiated and conducted RF immunity to: BS EN50130-4

Dimensions of Zone Monitor (surface mount): 150 x 90 x 48mm

Weight: 230g