

Context Plus

Addressable Fire Equipment Catalogue



INTELLIGENT INPUT/OUTPUT UNIT



Twin Input/Output Unit
Part Number SA4700-104IMC



ELECTRICAL & MECHANICAL CONSIDERATIONS

The unit operates at 17-35V DC with protocol voltage pulses of 5-13V. No electrical supply greater than 50V AC rms or 75V DC should be connected to any terminal.

Designed for indoor use only, it can be surface mounted with the supplied back-box or flush mounted using a UK double gang, flush mounting back-box of minimum depth 30mm. It has three LEDs:- (1) 'RLY' - lit continuous red when the relay is active; continuous yellow when in fault; (2) 'POLL/ISO' - flashes green when the device is polled; continuous yellow when the isolator is active; (3) 'IP' - continuous red when the input is active, continuous yellow when there is an input fault.

In Failsafe mode the I/O Unit will activate the on-board relay output without being commanded by the control panel on loss of loop or protocol loss. Failsafe mode is selected via a DIL switch and indicated with an analogue value of 17.

Technical Data

Minimum loop operating voltage in normal conditions: 17V DC

Maximum loop operating voltage: 35V DC

Max. current consumption at 24V DC no protocol

Power-up surge current: 900uA

Quiescent: 500uA

Max current LEDs On: 3.5mA

Max current LEDs disabled: 500uA

Switch input monitoring voltage (open-circuit condition): 9-11V DC

Maximum cable resistance: 50Ω

Opto-coupled input

Maximum voltage: 35V DC

Impedance: 10kΩ

Relay output contact rating at 30V AC or DC (inductive or resistive): 1A

Relay output wetting current at 10mV DC: 10μA

On resistance 0.2Ω

Maximum continuous current: 1A

Maximum switching current: 3A

Operating temperature: -40°C to +70°C

Humidity (no condensation) : 0-95% RH

IP rating: 54

Dimensions of Input/Output Unit (surface mount):

60 x 150 x 90mm; Weight: 244g

Warranty: 10 Years

ALSO AVAILABLE:

TWIN INPUT/OUTPUT UNIT WITH ISOLATOR, SA4700-104IMC

Provides the function of two Input Output Units within one enclosure. Both I/Os in the enclosure are electrically independent of each other and provide supervision of one or more normally open volt free contacts connected to a single pair of cables and a set of changeover relay output contacts.

ZONE MONITOR



Zone Monitor
Part Number 55000-845IMC

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.

ZONE MONITOR WITH ISOLATOR, 55000-845IMC

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

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. A 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 μF 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 & MECHANICAL CONSIDERATIONS

The Zone Monitor is loop powered and operates at 17–28V DC with protocol pulses of 5–9V. It 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 of the enclosure. The red LED indicates that a fire condition has been detected on the zone wiring. The yellow LED is lit when the built-in isolator has sensed a short circuit loop fault.

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 μF

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

Context Plus

Other products in the Context Plus range



Conventional fire detection panels



Conventional smoke and heat detectors



HFC227ea
Conventional fire suppression systems



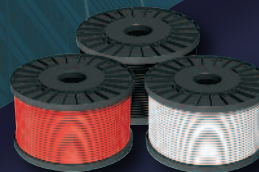
Conventional signalling devices



Conventional wireless fire alarm systems



Stand-alone mains & battery operated smoke, heat & CO alarms



Fire resistant cables



EN54 compliant power supplies

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