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Illumino Ignis Ltd™

LIGHTING & FIRE DESIGN, SUPPLY & SUPPORT

2 - 12 zone conventional fire alarm control panels

Conventional - Panel

Part No. XLEN-12 | XLEN-6 | XLEN-2 | XLEN-4 | XLEN-8

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Product Details

The Esento Excel panel is available from 2 to 12 Conventional and/or Twin Wire (sav-wire) zones. All inputs and outputs are fully programmable and there are options to have delays to the outputs. The programming features also include 3 different modes to help reduce false alarms.

As standard, all Excel panels provide two monitored sounder circuits, Fire & Fault VFCO relays, Fire & Fault switched negative outputs, class change and an alert input.

A fully functional repeater panel is available via a plug in comms PCB.

Excel panels support a large range of conventional detectors including, Apollo, Hochiki & Nittan.

The panels are supplied with a 3.0 amp internal power supply module. This module complies with the requirements of EN54-4 : 1988 and provides temperature compensated battery management charging.

Excel panels are approved to European standards EN54-2 & 4, Fire Detection and Alarm Systems – Control & Indicating Equipment.



Key Features

- 2 - 12 zones
- Zonal Twin Wire selection by DIL switch
- Network up to 8 control panels
- Activate controls via key switch or code entry
- Integral detector removal monitoring
- 3 Amp switch mode power supply Nom 27V DC
- 2 monitored sounder outputs
- 2 Aux C/O relays (1 x Fire) (1 x Fault). voltage free
- Class change I/P
- Alert I/P
- Fire & fault switched -ve outputs
- Program delays to outputs
- False alarm modes A, B & C
- Test mode, with or without sounders
- Disable zones, sounder O/Ps, aux O/Ps & delays
- Alarm load, 2.4A shared between all sounderoutputs
- All sounder circuits are fused @ 500mA with resettable fuses

Technical Specifications

Enclosure	1.2mm Mild Steel IP30. Colour ref: MW334E Interpon powder coat
Cable Entry	Via 20mm knockouts located in the top and rear of the cabinet
Dimensions	Back box: 450mm W x 300mm H x 85mm D, Lid: 460mm W x 310mm H x 25mm D
Mains Supply	3A internal switch mode power supply, Nom 27v DC
Battery Capacity	2 x 7.0Ah 12v VRSLA
Detection Zones	2, 4, 6, 8 or 12. EOL = 4K7R
Sounder Circuits	2 on main circuit board plus 2 additional sounder circuits provided on high spec zone card, monitored, fused @500mA. EOL = 4K7R
Twin Wire	Selectable per zone

Networking	Up to 8 control panels, fault tolerant RS485 communication, requires TPCA05 network card
On Board Relays	2 x programmable, 3A, 30v volt free changeover, additional relay provided on high spec zone card
Outputs	2 x programmable, 40mA switch -ve, 2 additional outputs provided on high spec zone card
Switch Inputs	Class change & alert (pulsing)
Event Log	40 event history
Intrinsically Safe Mode	Selectable per zone
False Alarm Management	Type A, B & C dependency modes, approved by LPCB
Delay Timer	On board programmable delay timer 1 -10 mins

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Electrical Specification Inputs & Outputs - MAIN PCB

PSU @ output	Power supply voltage control line	For temperature compensation control.
PSU Input + -	28vdc supply input. Diode protected for reversal and independent short circuit. Max current 3 amps	Max input current 3 amps. Input voltage 22vdc to 32vdc.
28v+, 0v- power output	28vdc supply output for fire alarm accessory relays etc. Max continuous use = 400mA.	Fused @ 500mA. Fuse = 500mA resettable fuse
Common fire relay	Fire relay contact. Clean C/O. Max 3A @ 30vdc	Un-fused
Common fault relay	Maintained fault relay contact. Clean C/O Max 3A @ 30vdc.	Un-fused
Outputs; FR, FLT	Switched -ve voltage outputs for relay control.	Overload voltage protected to 52vdc. Current limited 680R. Max load = 40mA
Inputs; CC, PUL	Switched -ve inputs, connect to 0v to trigger. Max input voltage = 28vdc. Non latching, max resistance 100R.	Protected via 10K Ohm impedance, 3v6 zener diode.
SNDR 1 - 2	28vdc polarity reversal monitored sounder outputs to fire alarm devices. 4K7 Ohm 5% 0.25W EOL resistor	Monitoring current limit 28mA, fused @ 500mA. Typical max load 22 devices @ 18mA each per circuit. Ensure 2.4A is not exceeded.
Zone 1 - 4	Fire alarm zone circuits. Conventionally wired detection circuit or Twin Wire combined detection / sounder circuit. 4K7 Ohm 5% 0.25W EOL resistor. Max 32 detectors per zone.	Monitoring current limit 50mA, fused @ 500mA. Typical max load 22 alarm devices @ 18mA each per circuit. Ensure 2.4A is not exceeded

Electrical Specification Inputs & Outputs - ZONE CARDS

Zone A - D	Fire alarm zone circuits. Conventionally wired detection circuit or Twin Wire combined detection / sounder circuit. 4K7 Ohm 5% 0.25W EOL resistor. Max 32 detectors per zone.	Monitoring current limit 50mA, fused @ 500mA. Typical max load 22 alarm devices @ 18mA each per circuit. Ensure 2.4A is not exceeded.
Programmable outputs OP A & OP B	Switched -ve voltage outputs for relay control.	Overload voltage protected to 52vdc. Current limited 680R. Max load = 40mA
Programmable relay output	Fire relay contact. Clean C/O, C & N/O Max 3A @ 30vdc	Unfused
SNDR A - B	28vdc polarity reversal monitored sounder outputs to fire alarm devices. 4K7 Ohm 5% 0.25W EOL resistor	Monitoring current limit 28mA, fused @ 500mA. Typical max load 22 devices @ 18mA each per circuit. Ensure 2.4A is not exceeded.

Quiescent and Alarm Current Details for Standby Battery Calculations

Base Models	Standby Current	Alarm Current
XLEN-2	75mA	116mA
XLEN-4	90mA	133mA
Add per Twin Wire circuit	N/A	9mA
TPCA04-S 4 zone ext card std	43mA	47mA
TPCA04-H 4 zone ext card, high spec	49mA	87mA

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Power Supply Specification

Mains supply	230vac +10% / -15% 50Hz max current 1.2A	
Mains supply fuse	4 Amp (F4A 250V)	Not accessible for servicing. Internal to switch mode power unit
Internal power supply rating	3.0 Amps total including battery charging	Maximum load shared between outputs = 2.4A
Power supply output voltage	21.27 - 29.68vdc	Tolerance +/- 0.1%
Maximum continuous load for battery standby (ImaxA)	ImaxA = 610mA	ImaxB not specified
Minimum current drawn by panel (example)	4 Zone I min = 90mA	12 Zone I min = 188mA
Maximum ripple	120 mV p-p	Supply and charger fault monitored
Min/max battery size and type	2 x 7.0Ah 12volt VRLA Use Yuasa NP range batteries	Other equivalent batteries may be used but have not been tested for the purposes of EN54 approval
Battery charging voltage	27.3 vdc nominal at 20 deg C	Temperature compensated
Battery charging output current	3.0A PSU 1.34A Current limited 4.7 Ohms	
Battery high impedance fault (Batt Hi Z)	Resistance = 1 Ohm or greater	1 hour reporting time
Max current drawn from batteries	3.15 Amps with main power source disconnected. Battery fuse 3.15A LBC 20mm.	

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