

ESENTO[®] ECLIPSE

2 - 4 zone conventional fire alarm control panels

The Esento Eclipse is a 2 or 4 zone Conventional /Twin Wire (sav-wire) control panel with integral power supply & space for standby batteries.

Two or four fire zone circuits are provided plus two monitored sounder circuits. Fire & Fault VFCO relays, Fire & Fault switched negative outputs, class change and an alert input are also included. The fire zone outputs can be set as 'Twin Wire' by DIL switch selection. In 'Twin Wire' configuration, special detector bases and call points must be used.

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

The panels are supplied with a 1.25 amp internal power supply module. This module complies with the requirements of EN54-4 : 1988 and provides temperature compensated battery management charging.

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



Features

Main Features

- 2 or 4 zones
- Twin Wire selection by DIL switch
- Activate controls via key switch or code entry
- Integral detector removal monitoring
- 1.25 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
- False alarm mode
- Test mode, with or without sounders
- Disable zones, sounder O/Ps & aux O/Ps
- Alarm load, 800mA shared between all sounder outputs
- 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: 300mm W x 250mm H x 80mm D Lid: 308mm W x 260mm H x 23mm D
Mains Supply	1.25A internal switch mode power supply, Nom 27v DC
Battery Capacity	2 x 3.2Ah 12v VRSLA
Detection Zones	2 or 4. EOL = 4K7R
Sounder Circuits	2 x monitored, fused @500mA. EOL = 4K7R
Twin Wire	Selectable in panel
On Board Relays	1 x Fire, 1 x Fault, 3A, 30v volt free changeover
Outputs	1 x Fire, 1 x Fault 40mA switch -ve outputs
Switch Inputs	Class change & alert (pulsing)
Intrinsically Safe Mode	Selectable per zone
False Alarm Management	Type A dependency mode, approved by LPCB

Models

ECL-2	2 zones, 2 sounder circuits
ECL-4	4 zones, 2 sounder circuits



Specifications

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 0.9A 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 0.9A is not exceeded.

Power Supply Specification		
Mains supply	230vac +10% / -15% 50Hz max current 1A	
Mains supply fuse	2 Amp (T2A 250V)	Not accessible for servicing. Internal to switch mode power unit
Internal power supply rating	1.5 Amps total including battery charging	Maximum load shared between outputs = 0.9A
Power supply output voltage	19.92 - 30.09vdc	Tolerance +/- 0.1%
Maximum continuous load for battery standby (ImaxA)	ImaxA = 575mA	ImaxB not specified
Minimum current drawn by panel (example)	4 Zone I min = 85mA	2 Zone I min = 75mA
Maximum ripple	120 mV p-p	Supply and charger fault monitored
Min/max battery size and type	2 x 3.2Ahr 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	1.5A PSU 630mA Current limited 10 Ohms	
Battery high impedance fault (Batt Hi Z)	Resistance > 1 Ohm	1 hour reporting time
Max current drawn from batteries	1.5 Amps with main power source disconnected. Battery fuse 3A LBC 20mm.	

Quiescent and Alarm Current Details for Standby Battery Calculations		
Base Models	Standby Current	Alarm Current
ECL-2	75mA	116mA
ECL-2 (set to Twin Wire mode)	75mA	134mA
ECL-4	85mA	133mA
ECL-4 (set to Twin Wire mode)	85mA	170mA