TECHNICAL DATA SHEET

ESENTO® MARINE REPEATER

12 zone fully functional/passive fire alarm repeater panel

The Esento Marine 12 way repeater panels have the same, easy to use, controls and indications as the main control panel.

The repeaters are fully functional with 'Silence', 'Resound' and 'Reset' controls, as well as Disable and Test Mode functions. It is also possible to disable the controls for each or all repeater panels to make them passive (indication only).

The main circuit board has 2, switch –ve, inputs which can be used to sound or pulse the alarms. These inputs can also be re-programmed for use as PSU fault inputs.

The internal comms PCB has 6, switch –ve, programmable outputs.

The repeaters 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.

Features

Main Features

- 12 zonal fire and fault indications
- Activate controls via keyswitch or code entry
- 1.25 Amp switch mode power supply Nom 27V DC
- Class change I/P
- Alert I/P
- 6 programmable switched -ve outputs
- Test mode, with or without sounders
- Disable zones, sounder O/Ps, aux O/Ps & delays

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
Outputs	6 x programmable sw -ve outputs (included on network card)
Switch Inputs	Class change & alert (pulsing)
Communication Wiring	Fault tolerant wiring requires 4 core (min 1.5mm) fireproof cable Legacy radial wiring requires 2 core (min 1.5mm) fireproof cable

Models	
ESEN-R-12MAR	12 zone repeater panel

Specifications

Electrical Specification Inputs & Outputs - MAIN PCB - TPCA01-R		
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.
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.

Electrical Specification Inputs & Outputs - COMMS PCB - TPCA05		
Comms A - B	RS485	Repeater Comms, fused @ 20mA
28v	Supply output	Fused @ 500mA
Programmable outputs 1 - 6	Switched -ve outputs	Overload voltage protected to 52vdc Current limited 680R Max load = 40mA

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 = 900mA
Maximum continuous load for battery standby (ImaxA)	ImaxA = 575mA	ImaxB not specified
Minimum current drawn by repeater panel	I min = 63mA	
Maximum ripple	250 millivolts	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**
ESEN-R-12MAR	63mA	85mA

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