T2000 and T2000CV
IEC 61508 Approved (SIL2) Marine Detection Panels

The MINERVA Marine range forms a comprehensive and compatible range of modular and flexible EN54 approved addressable fire controllers using MZX Technology™. EN54 Part 2 refers to controllers as Control and Indicating Equipment (CIE). Throughout this document, CIE will be used in place of controller.

The range includes a wide variety of interchangeable and compatible modules which can be designed to meet all fire detection applications from small single CIE applications to large multiple networked applications with integrated voice evacuation.

Our standard Marine fire CIEs include:

- **T2000** – 2 loop, 500 point, 40/80/160/200 or 240 zone network capable fire CIE in Marine approved compact housing*.
- **T2000CV** - 3 loop, 750 point 40/80/160 or 240 zone stand-alone fire (cannot be networked) CIE in a Marine approved compact housing*.

All variants fully comply with the requirements of EN54 parts 2 and 4.

The fire CIEs are designed to be easily networked into a peer to peer multi-controller network using the LPCB approved MX-NET. All controller functions on a networked system may be accessed through a single MZX controller or repeater.

* The T2000 CIE is capable of being upgraded to a 4, 6 or 8 loop CIE.

Features

- Long term service and support
- Reliable, modular fire controllers
- LPCB, BV, VdS approved controllers, network, detectors and ancillaries
- Expandable from one 1 zone controller to multiple 240 zone, 1000 point controllers
- Easy to use with flexible and powerful configuration functions
- Large backlit 16 line x 40 character LCD display with detailed and precise identification of all sectors, zones and points
- Peer to peer communication with up to 99 other CIEs providing a seamless operator interface

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The T2000 range is designed and built to BSEN ISO9001/2 by the UK's leading fire and security company.

The panels have a strong cast aluminium front door, which incorporates a modular user interface that fully complies with EN54 pt2. The user interface incorporates the ODM800 operator display module with a 16 x 40-character backlit LCD display, simple alphanumeric keypad and 5 softkeys.

The OCM800 operator control module provides all mandatory operator control keys and LED functions including Day/Night switching. One control key and 2 indication LEDs are provided for vessel specific functions. Control keys and LEDs are labelled in English according to the default Marine functionality. The slide in decals can be reversed and alternative text added.

The batteries and any additional zonal LED's or operator controls are mounted in a separate housing which can be mounted below the main panel or behind the panel. The battery box incorporates a heavy duty backbox and battery clamp.

The chassis plate in the battery box also has space for up to 2 x IOB800 input/output expansion modules (maximum 24 I/O) or 1 x PSU830.

Order Codes

557.200.600	T2000 Two To Eight Loop Marine Panel (Stainless steel enclosure)
557.200.602	T2000B Battery Box (Stainless steel enclosure)
557.200.605	T2000 BM Battery Box (Mild steel enclosure)
557.200.606	T2000 RMRS Door Stay Kit
557.200.610	T2000 Standard Two to Eight Loop Marine Panel (Mild steel enclosure)
557.201.216	T2000 XLM 8-Loop Mounting Kit
557.200.620	T2000CV 3 loop marine panel (mild steel back box)
557.202.127	VDR Cable For a Standalone panel, Com port 3
557.202.128	VDR Cable for a networked system, Com port 1
557.180.454	Marine Bulkhead Mount
557.180.452	Marine 19" rack mount kit for use with surface mounting housings
557.201.233	PSU 830 T2000/T2000R Conversion Kit
557.201.234	PSU 830 T2000 120 VAC Kit
508.023.126	AC2SW 230 VAC Changeover Unit
508.023.127	AC1SW 115 VAC Changeover Unit

T2000R / T2000RCV Repeaters

The T2000R full function repeater is an EN54 Marine approved repeater with optional addressable EN54:Pt.4 power supply. The repeater consists of a steel backbox and cast aluminium front door which incorporates the ODM800 operator display module with a 16 x 40 character backlit LCD display, simple alphanumeric keypad and 5 softkeys. The OCM800 operator control module provides all mandatory operator control keys and LED functions including Day/Night switching. One control key and 2 indication LEDs are provided for vessel-specific functions. The back box has a removable chassis plate with the PSU830 power supply and space for 2 x 7 Ah batteries to provide 72h backup.

The T2000R CV indicating repeater is an EN54 Marine approved repeater (24Vdc Supply). The repeater consists of a mild steel backbox and cast aluminium front door which incorporates the ODM800 operator display module with a 16 x 40-character backlit LCD display, simple alphanumeric keypad and 5 softkeys.Operator controls comprise a panel buzzer silence button, status LED's are provided for fire, fault and power on indication.

Both repeaters are connected to the Panel via the remote bus (RS485, 1200m distance). A maximum of 7 repeaters (including one MZX REMOTE repeater) can be linked to each control panel and can provide repeater functions for all panels on the system.

The repeater can support up to 80 inputs and outputs in the form of LED annunciators, IOB800 input/output modules, XIOM universal I/O modules or the 80 LED mimic module.

Order Codes

557.200.601	T2000R Repeater with Power Supply Unit 240 VAC (Stainless steel enclosure)
557.200.604	T2000R Repeater without Power Supply Unit 24 VDC (Stainless steel enclosure)
557.200.606	T2000 RMRS Door Stay Kit
557.200.611	T2000R Standard Repeater with Power Supply Unit 240 VAC (Mild steel enclosure)
557.200.612	T2000R Standard Repeater without Power Supply Unit 24 VDC (Mild steel enclosure)
557.200.621	T2000R CV Indicating Repeater without Power supply unit 24 VDC (Mild Steel enclosure)
557.201.233	PSU 830 T2000/T2000R Conversion Kit
557.201.234	PSU 830 T2000 120 VAC Kit
508.023.126	AC2SW 230 VAC Changeover Unit
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Technical Information

Mechanical		
Dimensions (WxHxD)		440 x 320 x 175mm (Panel) 440 x 320 x 175mm (Battery Box)
Weight		13.62kg (Panel) 14.74kg (Battery Box without Batteries) 5kg (Bulkhead Mounting Kit)
Colour		Dawn Grey BS480010A-03 (Casing) Dawn Grey BS480010A-03 (Front Panel) Pantone 431C (Operator Display / Modules)
Installation		Surface or Semi-flush Mounted

Environmental		
Operating Temperature Range		-8°C to + 55°C
Storage Temperature Range		-20°C to + 70°C
Relative Humidity		Up to 95% RH (non-condensing)
IP Rating		Marine IP42

Electrical		
Mains Supply		120 V-240 Vac + 10% / -15% at 50/60Hz
Secondary Supply		24 Vdc. Nominal

Inputs		
Number of Loops		1-2 (T2000) 3 (T2000 CV)
Addresses per Loop		250

Outputs		
Display		240 Zone 16 x 40 Character
Sounder		There are two separate monitored sounder outputs each rated at 2 A
Alarm		Fire - Relay output rated at 30 V d.c. at 1.0 A volt free c/o. Fault - Relay output rated at 30 V d.c. at 1.0 A volt free c/o.

EMC
Product family standard EN 50130-4 in respect of Conducted Disturbances, Radiated Immunity, Electrostatic Discharge, Fast Transients and Slow High Energy
EN 61000-6-3 for Emissions
Shock/Vibration: To EN54-2

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