## Fire Detection

### **Benefits**

- Allows very early detection of accommodation fires with significantly reduced false alarms when used with Tyco's unique heat enhanced Compensated Carbon Monoxide (CCO) Detector.
- Configurable Detection Zones allowing zones to be configured for any or all of the following: Latching or Non Latching Fire Indication, Normal or Intrinsically Safe zones and monitoring of machinery space zones.
- · Crew Alert Mode: Manages Alarm Annunciation.
- Pre-configured for immediate use.

### **Features**

- Console or Bulkhead mountable. Developed for use in vessels which require up to 32 zones of fire detection.
- · Range includes a separate Water Mist Panel
- Integrated Serial Voyage Data Recorder output module on 16 and 32 Zone Panels.
- Discrimination between Automatic Fire Detectors and Manual Alarm Call points to provide the appropriate response.
- · Marine Approved Muster Alarm.
- Text label Inserts for Controls and Indicators in customer supplied language.
- Extensive configuration options using simple onboard DIL switches and links.
- Installation costs reduced by being able to connect Intrinsically Safe (I.S.) and non I.S. devices on the same zone.
- · Separate battery box.



Developed and manufactured in the United Kingdom the T1200-C range of Conventional Panels from Tyco is a powerful yet user friendly series of Control Panels. The range is fully approved by all major Marine Authorities and takes advantage of the very latest technological advancements both in terms of design and manufacturing to the latest European, Marine and Asian standards.



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### **Detection Options**

### **Optical Detector**

An excellent all round detector suited to all applications.

### High Performance Optical (HPO) Detector

A direct replacement for the Ion Chamber Smoke Detector.

#### Flame Detector

Used where there is a risk of large flaming fires e.g. Machinery Spaces.

### Enhanced Compensated Carbon Monoxide (CCO) Detector

The best detector for early warning without false alarms, used in life threatening applications e.g. Cabins, Public Spaces etc.

### **Heat Detector**

Used where smoke detectors cannot be used e.g. Galleys, Laundries, Drying Rooms etc.

### **Fault Finding Features**

The following fault finding indications are available:

### General Fault

Any Fault Condition.

### Power Supply Fault

Mains or standby power supply/charger fault.

### System Fault

Micro Controller or memory fault.

### Earth Fault

Positive or Negative Power Supply Earth Fault.

### Fuse Fault

Auxiliary Supply Fuse Failure.

### Repeater Fault

Repeater Fault or Repeater communications failure.

### Sounder Fault

Any Sounder Fault.

### Fire Protection Fault

Fault on the Fire Protection Output. \*\*

### Fire Output Fault

Fault on the Fire Output. \*\*

### Fault Output Fault

Fault on the Fault Output. \*\*

### **Ease of Installation**

The following features are provided to ease installation:

- · Designed for one man installation.
- · Reversible enclosure for bottom or top cable entry.
- · Factory configured to work straight out of the box.
- · Integral Serial VDR output on 16 and 32 Zone Panels.
- · Integral Muster Alarm.

### **Service**

Service is available from the network of Tyco Marine Offices situated in all major ports around the world. (www.tycomarine.com)



<sup>\*\*</sup>Fire Protection Fault - A fault on the output used to activate ancillary Fire Protection equipment for example Fire Doors or Plant Shutdown.

<sup>\*\*</sup>Fire Output Fault - A fault on the output used to transmit a common Fire Signal to a remote monitored station.

<sup>\*\*</sup>Fault Output Fault - A fault on the output used to transmit a common Fault Signal to a remote monitored station.

# Fire Detection

### Overview of Operation (Ease of Use)

### Alarm Acceptance

Turn the Access Control key switch to position "I" to unlock the controls. Press the "Silence Alarms/Resound" button once only to silence the Fire Alarm Sounders. To silence the buzzer press the "Silence Buzzer" button.

### Panel Reset

Turn the Access Control key switch to position "I" to unlock the controls, press the "Reset" button.

#### Zone Isolation

Turn the Access Control key switch to position "I" to unlock the controls. Press the "Select ON/OFF" button to enter the select mode, use the select ♥ button to move the pulsed cursor indication down through the LEDs until it pulses the required zone LED. Press the "Disable" button to disable the selected zone.

### Sounder Isolation

Turn the Access Control key switch to position "I" to unlock the controls, Press the "Select ON/OFF" button to enter the select mode, use the select ♠ button to move the pulsed cursor indication up through the LEDs until it pulses the Sounder Fault/ Disabled and Sounder Test LEDs. Press the "Disable" button to disable the sounders.

### One Man Zone Test

Turn the Access Control key switch to position "I" to unlock the controls, Press the "Select ON/OFF" button to enter the select mode, use the select ♥ button to move the pulsed cursor indication down through the LEDs until it pulses the required Zone LED. Press the "Test" Button to activate the test condition on the selected zone.

### One Man Sounder Test

Turn the Access Control key switch to position "I" to unlock the controls, Press the "Select ON/OFF" button to enter the select mode, use the select ♠ button to move the pulsed cursor indication up through the LEDs until it pulses the Sounder Fault/ Disabled and Sounder Test LEDs. Press the" Test" button to start the Sounder Test.

### **Technical Information**

### **Enclosure Material:**

Mild Steel Zinc Plated & Passivated + Polyester Powder Coated.

### Controller Range

T1216-C Console/Bulkhead Mount 16 Zone Controller 110 - 230VAC + 10% / -15% 50 - 60Hz + /- 5%.

T1216W-C Console/Bulkhead Mount 16 Zone Water Mist Panel 110 - 230VAC + 10% / -15% 50 - 60Hz + /- 5%.

T1232-C Console/Bulkhead Mount 32 Zone Controller 110 - 230VAC + 10% / -15% 50 - 60Hz + /- 5%.

T1200B-C Bulkhead Mount Battery Box suitable for  $2 \times 17Ah$  SLA Batteries.

T1200E-C Console/Bulkhead Mount Expansion Box.

T1216R-C Console/Bulkhead Mount 16 Zone DC Repeater 19.6 to 28.4Vdc.

T1232R-C Console/Bulkhead Mount 32 Zone DC Repeater 19.6 to 28.4Vdc.

### **Options**

A1466 Relay Output Module.

C1631 Repeater Interface Module.

C1633 8 - Way LED Driver Output Module.

C1634 8 - Way Relay Output Module.

C1635 8 - Way Monitored Output Module.

C1665 Muster Interface Module.

Please refer to the following datasheets:-

PSF123UM - Series 600 Conventional Fire Detector Range.

 ${\sf PSF132UM-601F-M\ \&\ 601FEX-M\ Conventional\ Infra\ Red\ Flame\ Detectors.}$ 

PSF122UM - M600EX Intrinsically Safe Fire Detector Range.

PSF036UM - MCP Series Call points.



### Fire Detection

**MUSTER ALARM** PLUG-IN REPEATER SERIAL PORT (OPTION) **MAXIMUM NUMBER OF REPEATERS = 5 PLUG-IN MUSTER INTERFACE OPTIONAL FOR REPEATERS** CLOSE / ADDITIONAL SOUNDER CIRCUITS SHUTDOWN, FIRE DOOR VENTILATION MIMICS / PLANT / MACHINERY UP TO 32 ZONES OF FIRE DETECTION **UP TO 32 ZONES (MAXIMUM OF 20** 8 WAY O/P MODULES (IN DEDICATED SMOKE DETECTORS PER ZONE) BUT **ENCLOSURE, ABUTTED TO FIRE PANEL)** LIMITED TO 512 DEVICES PER PANEL **ZONAL FIRE OUTPUTS** - OPEN COLLECTOR 4 OFF SILENCE / RESET REMOTE ALARM SILENCE, RESET I/Ps **MULTIPLE SOUNDER** OPEN COLLECTOR **SOUNDER OUTPUTS 4 @ 1.0A OPEN COLLECTOR OUTPUTS: ALARM DISABLEMENT ACTIVE BUZZER ACTIVE** SHUTDOWN DAMPERS / FIRE DOORS **ETC / MONITORING REMOTE RELAYS MAXIMUM AUXILLARY DC SUPPLY O/P 1.0A** 1) RESET RELAY\* 2) FIRE ALARM ROUTING O/P\* 3) FIRE PROTECTION EQUIPMENT O/P\* 4) FAIL-SAFE FAULT ROUTING **WARNING O/P\*** VDR OUTPUT **MARINE VOYAGE DATA RECORDER** O/P MODULE. C/O RELAY CONTACTS 30Vdc 1AMP & SERIAL OUTPUT RS422

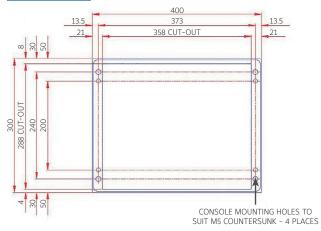


### Fire Detection

## Mounting Arrangements (all dimensions in mm)

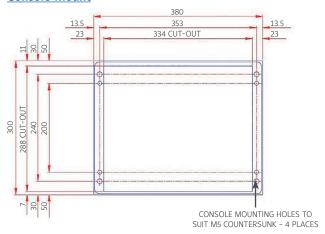
T1216W-C 16 Zone Water Mist Panel T1232-C 32 Zone AC Controller T1232R-C 32 Zone DC Repeater T1200E-C Expansion Box

### **Console Mount**



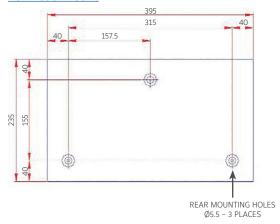
T1216-C 16 Zone AC Controller T1216R-C 16 Zone DC Repeater

### **Console Mount**

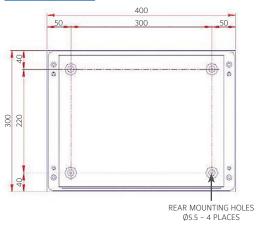


T1200B-C Battery Box

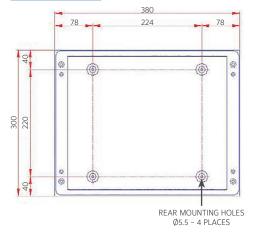
### **Bulkhead Mount**



### **Bulkhead Mount**



### **Bulkhead Mount**



The right is reserved to modify or withdraw any product or service without notice

Technical Information Sheet PSF261UM Issue 1

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