

# MINERVA® Marine

## MX Technology® Fire Detection Type 'n' Protection for Hazardous Areas

### Features

- ATEX certificated Type 'n'
- Cost effective protection for Zone 2 risks
- No requirement for safety barriers
- No requirements for special earthing
- Up to 250 EXn devices per loop
- Comprehensive range of devices , Photo/Heat , Heat , CO/Heat and Weather proof callpoint (IP67)
- Multi mode operation for photo/heat and CO/heat allowing independent operation of each detection element
- Compatible with T2000, T2000CV and T2000 MOD-N MX Technology® fire detection control panels



### Fire Detection for Hazardous Areas

There is a risk of fire or explosion in all areas containing flammable substances in the form of liquids and gases. Where these combustible materials are mixed with air in sufficient concentration they form flammable atmospheres and the areas containing them are designated Hazardous Areas. When a source of ignition, such as a spark is applied in a hazardous area, an explosion could take place.

Electrical equipment supplied for use in Hazardous Areas must comply with requirements to ensure that its introduction into the area does not increase the existing risk. We have designed this range of ATEX Type 'n' approved devices for use in zone 2 areas where hazardous atmospheres are not likely to occur in normal operation or infrequently and for short periods (ie less than 10 hours per year)



### 811PHEXn Smoke & Heat Detector

The Optical Smoke & Heat Detector forms part of the 800Exn Series of MX Addressable Fire Detectors. The detector plugs into a 5BEx base.

The detector is designed to transmit to a remote T2000 fire controller, digital signals which represent the status of the optical smoke and heat elements of the detector.

Software within the controller is used to interpret the returned optical and heat values to raise an alarm or other appropriate responses according to the type of detector configured in 'MX CONSYS'.

The mode of detector may be:

- Optical smoke only detector (sensitivity High, Normal or Low)
- HPO smoke detector (sensitivity High, Normal or Low)
- Heat only rate-of-rise (A1R) detector (no sensitivity selection)
- Heat fixed temperature 60°C (A2S) (no sensitivity selection)
- Optical (sensitivity High, Normal or Low) combined with heat fixed temperature 60°C (A2S)
- HPO (sensitivity High, Normal or Low) combined with heat fixed temperature 60°C (A2S)

These detectors are designed to comply with EN 60079-15:2003. They are ATEX certified and marked as follows :-

- Ex II 3 G EEx nA II T4



### 811CHEXn CO & Heat Detector

The 811CHEXn Carbon Monoxide plus Heat Detector forms part of the 800Exn Series of MX Addressable Fire Detectors. The detector plugs into a 5BEx base.

The detector is designed to transmit to a remote T2000 fire controller, digital signals which represent the status of the carbon monoxide and heat elements of the detector.

Software within the controller is used to interpret the returned Carbon Monoxide and heat values to raise an alarm or other appropriate responses according to the type of detector configured in 'MX CONSYS'.

The mode of detector may be:

- Heat only rate-of-rise (A1R) detector (no sensitivity selection)
- Heat fixed temperature 60°C (A2S) (no sensitivity selection)
- Compensated Carbon Monoxide detector (sensitivity: High, Normal or Low)
- Compensated Carbon Monoxide detector (sensitivity: High or Normal ) combined with heat (A1R)

These detectors are designed to comply with EN 60079-15:2003. They are ATEX certified and marked as follows :-

- Ex II 3 G EEx nA II T4



### 811HEXn Heat Detector

The 811HEXn Heat Detector forms part of the 800Exn Series of MX Addressable Fire Detectors. The detector plugs into a 5BEx base.

The detector is designed to transmit to a remote T2000 fire controller, digital signals which represent the status of the heat element of the detector. Software within the controller is used to interpret the returned heat values to raise an alarm or other appropriate response according to the type of detector configured in 'MX CONSYS'.

The mode of detector may be:

- Heat rate-of-rise normal ambient (A1R), (no sensitivity selection)
- Heat fixed temperature 60°C (A2S), (no sensitivity selection)
- Heat rate-of-rise high ambient (CR), (no sensitivity selection)

These detectors are designed to comply with EN 60079-15:2003. They are ATEX certified and marked as follows :-

- Ex II 3 G EEx nA II T4



### 5BEx 5" Universal Intrinsically Safe Base .

The 5BEx universal base is compatible with the 800EXn range of addressable detectors. The base is designed to fix directly to the DMH-5B deckhead mount or to most common backboxes.

The base provides an output to drive a remote indicator LED and includes a detector locking device as standard.



### Addressable Weatherproof Break Glass Callpoint

The CP830Exn Addressable Weatherproof Break Glass Callpoint is designed to monitor and signal the condition of the switch contact associated with the break glass.

The callpoint is designed to comply with EN 60079-15 : 2003. They are ATEX certified and marked as follows :-

- Ex II 3 G EEx nL IIC T4



### DHM-5B Deckhead mount.

The DHM-5B provides a strong, impact resistant, non corrosive and weather resistant support for the 5BEx detector base. A sealing gasket is supplied (not fitted) with each deck head mount to provide an IP55 rated seal between the DHM-5B and the base. Four concentric 20mm and 25mm break-outs are provided to allow for flexible installation. A single terminal insert is supplied which can be used for earth continuity or screen connections. 5 additional terminals can be fitted to the DHM-5B by using the base accessory terminal kit.

## Technical Information

Equipment for use in hazardous areas classified as Exn (Type 'n') can be used to protect Zone 2 applications with gas group IIC hazards, A Zone 2 area is one where the hazard is not likely to occur in normal operation or infrequently and if so only for short periods.

Exn equipment does not require any safety barriers or special earthing arrangements, this makes it an economical solution for the protection of Zone 2 risks , an example of one is the cardeck on a ferry where there is a potential risk from spilt fuel in an enclosed area.



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

**Technical Information Sheet PSF205UM Issue 1**

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