



MEETING SOLAS REQUIREMENTS WITH TETRA





Ships fulfil many functions and come in many shapes and sizes. Whether fishing, transporting goods, taking holidaymakers on a cruise or carrying out research, ships make a huge contribution to the global economy. Shipping is an international industry and is only able to operate effectively and safely when regulations and standards are agreed, adopted and implemented on an international basis.

To meet that need, a conference held by the United Nations in 1948 adopted a convention establishing the International Maritime Organization (IMO) to improve maritime safety and prevent marine pollution. The IMO's first conference focussed on safety, and the International Convention on Safety of Life at Sea (SOLAS) came into force in 1965, covering a wide range of issues. A new version of SOLAS was adopted in 1974 and forms the basis of the current regulations, although it has been modified several times to reflect technical advances and changes in the industry.

They are not commonplace, but fires can happen on board ships and the consequences can be catastrophic. Quick, effective response is key to minimising the effect of an incident and reliable communications help underpin any

response. SOLAS Chapter II-2 details fire safety provisions including protection, detection and extinction and Regulation 10.10.4 requires that a minimum of two two-way portable radiotelephones are carried on board for each fire party, in order to provide a dedicated means of communication between fire-fighters and a crew member outside the incident area. Depending on the size and type of vessel, it may actually be required to carry more than two devices. From 1 July 2018, all ships will be required to comply with the regulation.

Although Regulation 10.10.4 does not specify the frequency band to be used by the fire-fighter radios, UHF frequencies are most commonly used for on-board communication as they provide better propagation within the metal structures of ships.

SOLAS CHAPTER II-2 REGULATION 10.10.4

“ For ships constructed on or after 1 July 2014, a minimum of **two two-way portable radiotelephone apparatus for each fire party** for fire-fighter's communication shall be carried on board. Those two-way portable radiotelephone apparatus shall be of an **explosion-proof type or intrinsically safe**. Ships constructed before 1 July 2014 shall comply with the requirements of this paragraph not later than the first survey after **1 July 2018**. ”

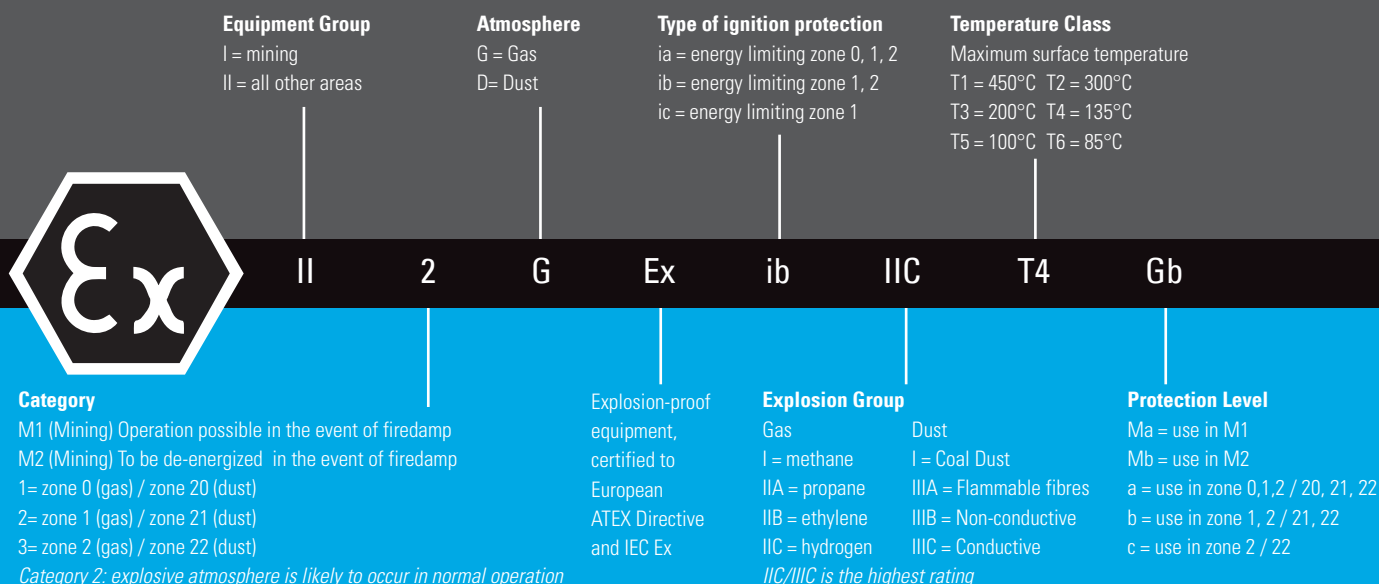


In addition, the radiotelephone apparatus provided must be of an explosion-proof type or intrinsically safe. The ATEX regulations define multiple categories of environment and set down stringent parameters for the behaviour of equipment exposed to potentially explosive dust and gas.

Motorola Solutions supplies a number of "intrinsically safe" radios as required by the SOLAS regulation. These devices are designed so that they do not cause ignition of hazardous substances when used in environments that have explosive vapour or dust present in the atmosphere - for example in locations concerned with fuel storage.

The MTP8000Ex Series TETRA is certified against the ATEX Directive and meets some of the most stringent classifications of any two-way radio available on the market today, meaning that they can be used safely in a wide variety of explosive environments.

ATEX RATING EXPLAINED





MTP8550EX TETRA ATEX

MTP8000EX SERIES TETRA ATEX PORTABLE RADIOS

The MTP8000EX Series combines the best of two-way radio functionality with the latest digital technology to deliver reliable, clear audio. These dual mode devices can operate with both digital DMR and analogue signalling and are packed with enhanced features that are easy to use and help protect workers.

BUILT RUGGED

MTP8000Ex Series TETRA ATEX is rugged and durable to meet the most stringent standards. Dust and water can damage radios, but the MTP8000Ex Series TETRA ATEX is designed to withstand the worst. It meets or exceeds MIL STD 810 for exceptional durability and is IP67 rated* to keep out damaging water and dust. The design has also been subjected to Motorola Solutions unique Accelerated Life Test to simulate five years of hard use.

EASY TO OPERATE

The MTP8000Ex Series TETRA ATEX features a large push-to-talk button, volume and channel knobs and programmable buttons that are easy to use, even when wearing gloves. The large, colour display and bright LED show radio status information at a glance. Plus the prominent orange emergency button enables workers to quickly call for assistance when needed.

WORK SAFELY

Everything about the MTP8000Ex Series TETRA ATEX is designed for worker safety. Loud, clear performance and innovative features help ensure messages get through in the noisiest environments. Integrated man-down sends an instant alert if a mishap occurs. And the bright blue colour helps ensure workers can easily identify and carry only ATEX-approved radios into hazardous environments.

ATEX AND SOLAS COMPLIANT

MTP8000Ex Series TETRA is ATEX / IEC Ex certified and meets the requirements of SOLAS Chapter II-2 Regulation 10.10.4 for fire-fighter radios carried on board ships.





To accompany the **MTP8000Ex Series TETRA ATEX**, Motorola Solutions offers a range of accessories to make the radios easier and safer to use on-board by fire-fighters. And like the radio, Motorola Solutions audio and energy accessories meet the most stringent ATEX standards. Unlike other suppliers, we test the radio and accessories together as a system to ensure the highest levels of performance and compliance.

MTP8550EX TETRA ATEX

STANDARD ACCESSORIES FOR THE MTP8000Ex



SINGLE UNIT CHARGERS

Designed for quick and easy charging and to maximise battery life performance.



BELT CLIP

Securely attaches the radio to a belt of up to 2.5 inches wide.



CARRY CASES

Protects the radio from being knocked, dropped or mislaid. Can be worn on a belt or shoulder strap for extra convenience and safety.



VEHICLE CHARGER

Designed for permanent installation in a vehicle. Charges and optimises battery life performance on the go.



FIRE ACCESSORIES FOR THE MTP8000Ex



ACTIVE NOISE CANCELLING RSM

Communicate in the most demanding Fire Ground environments. Two PTTs (side and front), High/low volume control, emergency button, 1 programmable button. Supports Dräger and Savox helmet comms and 3.5mm discreet listening accessories.



SAVOX HC-1

Helmet communications with HC-1 bone conductive microphone and ear piece.



Dräger FPS COM PLUS

Includes integrated microphone and ear piece. Plugs directly into the Active Noise Cancelling RSM Nexus socket for optimised transmit and receive audio.



3.5MM ACOUSTIC TUBE

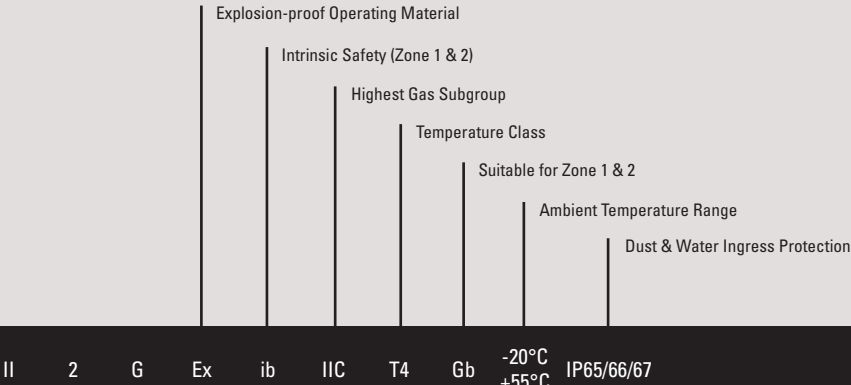
For in-ear audio, the 3.5mm listen only acoustic tube is secured to the Automatic Noise Cancelling RSM with push, twist and lock connection.

“FROM 1ST JULY 2018, ALL SHIPS ARE REQUIRED TO CARRY A MINIMUM OF TWO PORTABLE TWO-WAY RADIOS FOR FIRE-FIGHTERS, AND DEPENDING ON THE SIZE AND TYPE OF SHIP, THEY MAY NEED MORE. THE RADIOS HAVE TO BE INTRINSICALLY SAFE”.

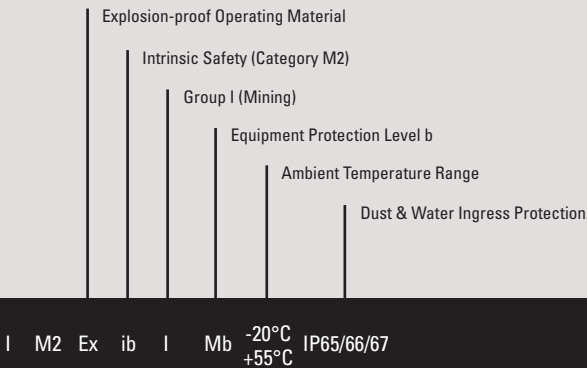
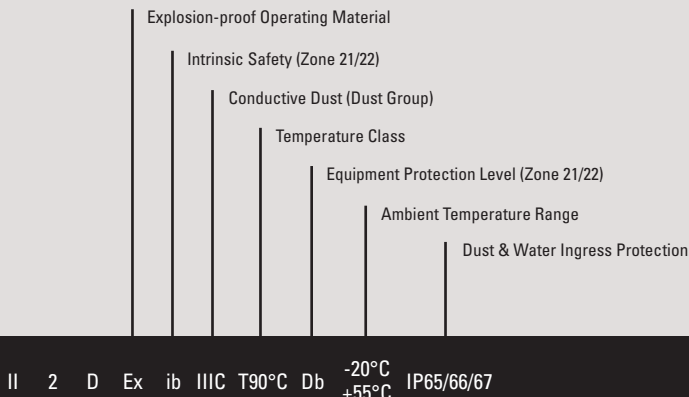
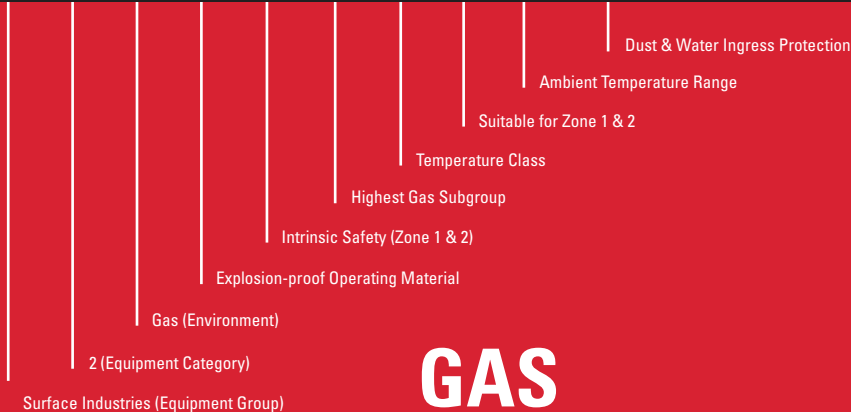


Meeting the latest ATEX and IECEx standards, this next generation of TETRA ATEX radios represents a significant step forward in improving worker safety, communications and efficiency.

IECEx SPECIFICATIONS
IEC 60079-0:2011
IEC60079-11:2011



ATEX SPECIFICATIONS
EN60079-0:2012
EN60079-11:2012





With exceptional voice quality, long battery life and ATEX-certified for safety, the MTP8000Ex Series TETRA ATEX meets the requirements of SOLAS Chapter II-2 Regulation 10.10.4 for fire-fighter radios carried on board ships.

To learn more about TETRA, visit

https://www.motorolasolutions.com/en_xl/products/tetra.html

*MTP8000Ex Series TETRA ATEX radios are rated IP67 and are also certified to the highest ingress protection available under ATEX/IECEx test conditions - IP64. Availability is subject to individual country law and regulations. All specifications shown are typical unless otherwise stated and are subject to change without notice.

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