

Product And Company Identification:

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Manufacturer's Name:	Entel
Subject:	Intrinsically Safe Two-way Portables To Comply With SOLAS Regulation II-2/10

IMO Regulation

The Maritime Safety Committee (MSC), in its 91st session adopted the following amendment to SOLAS regulation II-2/10 regarding fire fighters' communication:

"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."

Entel's Products

Entel offers a comprehensive range of marine VHF and UHF intrinsically safe portables to comply with the new SOLAS regulations.

HT Series 2.0 Marine portables are designed to endure the everyday rigours of life at sea. Highly successful with fire brigades, petrochemical, shipping, and major blue chip organizations worldwide, the HT Series 2.0 is built without compromise to deliver loud and crisp audio using the latest commander noise reduction technology.

Conforming to European **IP68**, the HT Series 2.0 offers the highest submersibility rating of any manufacturer. This unique series protects against corrosion, withstanding total immersion in water to a depth of 5 meters for 1 hour to protect against the likely hazards encountered in any field of operation. Exceeding **MILSTD 810C/D/E/F** rating for tough enduring performance, HT Series 2.0 is designed to withstand shock, vibration, dust and moisture, ensuring many ears of trouble free use in the most hostile environments.

Following options of Intrinsically Safe portables are available:

ATEX Approved IIC - The HT900 range of ATEX certified portables meet IIC T4 - the most stringent ATEX ratings as per EU directive 94/9/EC. For full details refer to the ATEX DATA SHEET available here: www.entel.co.uk/atex

ATEX Approved IIA - The HT800 range of ATEX certified portables meet IIA T4 with 4 watts RF power - for those users not restricted to the IIC 1 watt regulatory classification.

IECEx Approved - The HT500 range of intrinsically safe certified portables meet IECEx certification - suitable for those users who do not need to comply with the European ATEX standard.

HT542 – IECEx VHF



Notable Features:

- Marine VHF band 156-163.275MHz INT, USA, CAN
- IP68 submersible 5m for 1 hour
- 1800mAh Li-ion battery
- 16 Channels
- IECEx Approved
- MILSTD 810/C/D/E/F
- VOX hands free

HT544 – IECEx VHF



Notable Features:

- Marine VHF band 156-163.275MHz
- All 58 INT, USA, CAN channels plus 36 private channels
- LCD display
- IP68 submersible 5m for 1 hour
- 1800mAh Li-ion battery
- IECEx Approved
- MILSTD 810/C/D/E/F
- VOX hands free

HT582 – IECEx UHF



Notable Features:

- UHF band 400-470MHz
- IP68 submersible 5m for 1 hour
- 1800mAh Li-ion battery
- 16 Channels
- IECEx Approved
- MILSTD 810/C/D/E/F
- VOX hands free

HT583 – IECEx UHF



Notable Features:

- UHF band 400-470MHz
- 255 Channels
- LCD display
- IP68 submersible 5m for 1 hour
- 1800mAh Li-ion battery
- IECEx Approved
- MILSTD 810/C/D/E/F
- VOX hands free

HT842 – ATEX VHF



Notable Features:

- Marine VHF band 156-163.275MHz INT, USA, CAN
- IP68 submersible 5m for 1 hour
- 1800mAh Li-ion battery
- 16 Channels
- ATEX IIA Approved
- MILSTD 810/C/D/E/F
- VOX hands free

HT844 – ATEX VHF



Notable Features:

- Marine VHF band 156-163.275MHz
- All 58 INT, USA, CAN channels plus 36 private channels
- LCD display
- IP68 submersible 5m for 1 hour
- 1800mAh Li-ion battery
- ATEX IIA Approved
- MILSTD 810/C/D/E/F
- VOX hands free

HT882 – ATEX UHF



Notable Features:

- UHF band 400-470MHz
- IP68 submersible 5m for 1 hour
- 1800mAh Li-ion battery
- 16 Channels
- ATEX IIA Approved
- MILSTD 810/C/D/E/F
- VOX hands free

HT883 – ATEX UHF



Notable Features:

- UHF Band 400-475MHz
- 255 Channels
- LCD display
- IP68 submersible 5m for 1 hour
- 1800mAh Li-ion battery
- ATEX IIA Approved
- MILSTD 810/C/D/E/F
- VOX hands free

HT942– ATEX VHF



Notable Features:

- Marine VHF band 156-163.275MHz INT, USA, CAN
- IP68 submersible 5m for 1 hour
- 1800mAh Li-ion battery
- 16 Channels
- ATEX IIC Approved
- MILSTD 810/C/D/E/F
- VOX hands free

HT944 – ATEX VHF



Notable Features:

- Marine VHF band 156-163.275MHz
- All 58 INT, USA, CAN channels plus 36 private channels
- LCD display
- IP68 submersible 5m for 1 hour
- 1800mAh Li-ion battery
- ATEX IIC Approved
- MILSTD 810/C/D/E/F
- VOX hands free

HT982– ATEX UHF



Notable Features:

- UHF band 400-470MHz
- IP68 submersible 5m for 1 hour
- 1800mAh Li-ion battery
- 16 Channels
- ATEX IIC Approved
- MILSTD 810/C/D/E/F
- VOX hands free

HT983 – ATEX UHF



Notable Features:

- UHF band 400-470MHz
- 255 Channels
- LCD display
- IP68 submersible 5m for 1 hour
- 1800mAh Li-ion battery
- ATEX IIC Approved
- MILSTD 810/C/D/E/F
- VOX hands free

Accessories

Entel offers a range of professional audio accessories to suit the fire and rescue applications. Being a major supplier to several Fire and Rescue organizations in the world, Entel is fully aware of the ruggedness and reliability that is needed in a radio by such customers.

Fire Fighting teams prefer communication solutions with bone-conductive options that can fit easily with their existing BAs. Since customer's specifications vary, Entel has a comprehensive range of audio accessories to address these requirements.

Should the customer demand a radio integrated Breathing Apparatus, Entel has two market leading products from Draeger and Scott Safety approved on its ATEX certificate to work with the radios.

Some of the ATEX approved audio accessories supplied to fire and rescue organizations globally are as follows:

EPT40/950 Bone conductive combined earpiece microphone

The combined mic/earpiece detects speech-induced bone vibrations via direct contact with ear canal wall. Because these vibrations occur whether one speaks softly or yells you only have to speak at a moderate level for high speech clarity, even in high noise areas. The earpiece connects via a quality in line connector to a large rugged waterproof press to talk (PTT) button that can clip on to a belt or other suitable position using the rugged revolving clip. The press to talk switch is easy to use, has a positive feel and can be used by a gloved hand or under clothing.

FEATURES:

- Can be worn under a helmet or face mask
- Allows discreet communication with no visible microphone
- Utilizes a sound-pressure receiver making it easy to hear under noisy conditions
- ATEX approved
- Supplied with a waterproof PTT
- For use in high noise and blue-light/tactical environments

EPT40/950



CXR5/950 Bone conductive skull microphone

The CXR5 is a high performance bone vibration microphone that provides clear audio reception in a noisy environment. Unlike other conventional headsets, the CXR5 is not affected by surrounding sounds while you are in communication. For transmitting your message, a low profile, bone conductive microphone is placed on top of the head and the earpiece is over one of the ears.

The fully adjustable CXR5 fits on the head similar to a cap. The metal frame supports the bone conductive microphone which fits on adjustable straps. A robust cable exits the skull cap the rear and attaches via a quality in-line connector to a large rugged waterproof press to talk switch that can clip on to a belt or other suitable position using the rugged revolving clip. The press to talk switch is easy to use, has a positive feel and can be used by a gloved hand or under clothing.

FEATURES:

- A high quality rugged bone conductive skull cap
- Can be worn under a helmet
- ATEX approved
- Supplied with a waterproof PTT
- For use in high noise environments

CXR5/950



CXR16/950 Bone conductive throat microphone

The CXR16 is a high performance throat vibration microphone that provides clear audio reception in a noisy environment. Unlike other conventional headsets, the CXR16 is not affected by surrounding sounds while you are in communication. For transmitting a message, the bone conductive microphone is placed close to the throat and fastened with a Velcro band securely around the neck.

A rugged 'D' shaped earpiece accompanies the throat microphone and connects via a quality in-line connector to a large rugged waterproof press to talk switch that can clip on to a belt or other suitable position using a revolving clip. The large sized press to talk (PTT) switch is easy to use, has a positive feel and can be used by a gloved hand or under clothing.

FEATURES:

- A high quality throat microphone with a comfortable soft-feel adjustable neck band
- Can be worn under fire fighters clothing
- ATEX approved
- Supplied with a waterproof PTT
- For use in high noise environments

CXR16/950



EA19/950 'D' shaped earpiece with boom microphone

A 'D' shaped earpiece with boom microphone for the HT ATEX series hand portable radio. The soft rubber-feel earpiece fits over the ear and is combined with a lightweight short profile boom microphone. There is an in-line press to talk button (PTT) with clip. The EA19/950 allows the radio user to carry the radio on their belt and have the facility to both make and receive calls without removing their radio. This keeps the radio safe and ensures that calls are not missed, especially in noisy environments. This accessory is designed for light to medium duty applications.

This accessory can also be used with automatic voice activated transmit VOX (when activated on the radio).

FEATURES:

- Soft rubber-feel earpiece
- VOX compatible
- ATEX approved

EA19/950



CMP950 ATEX approved heavy duty submersible speaker microphone

A submersible, rugged, heavy duty lapel speaker microphone for the HT ATEX series hand portable radios. It is attached with a revolving clip and allows the radio users to carry the radio on their belt and have the facility to both make and receive calls without removing their radio. This keeps the radio safe and ensures that calls are not missed, especially in noisy environments. The CMP950 has a socket (3.5mm mono) to allow an optional earpiece (EHP9) for discreet reception of calls.

FEATURES:

- Heavy duty and rugged
- Waterproof
- ATEX approved

CMP950



CLC95x

Heavy duty leather carry-case with belt loop and strap. This will give the radio cosmetic and maximum impact protection if dropped or knocked

CLC95x



Breathing Apparatuses and Face Masks

Breathing apparatuses (BA) are widely used by fire fighters and rescue workers as part of their equipment to provide safety and mobility in hazardous areas. Communication is an essential requirement in such applications. Entel's bone conductive audio solutions mentioned above can be used in conjunction with any BA or face mask. Should the application require an integrated communication system with the BA, Entel has approved two of the leading BA brands on its ATEX certificate. This provides peace of mind to the user that the whole solution, i.e. radio and the BA, is ATEX approved and safe for use in hazardous environments.



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