MTP8000Ex SERIES TETRA ATEX RADIOS

WORK SAFER. WORK SMARTER. WORK ANYWHERE.
The MTP8000Ex Series sets a new standard in TETRA ATEX radios. From their form to their function, these new radios have been carefully engineered to address workers’ needs and offer the ultimate in safe, reliable and efficient communications in hazardous environments.

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.
Motorola has more than 20 years of experience in providing intrinsically safe two-way radios. Having shipped more than 100,000 TETRA ATEX radios, we are the leading supplier of TETRA radio communications solutions for use in hazardous environments.

We have used all of this knowledge and experience to develop the MTP8000Ex Series ATEX radios, giving workers the ability to work safer, work smarter and work anywhere with powerful audio, enhanced coverage, extended battery life, greater ruggedness, advanced ergonomics and increased usability.
DESIGNED FOR THE MISSION
The MTP8000Ex Series TETRA ATEX radios have been specifically designed for end-users who need to work in hazardous environments with potentially explosive gases or chemical vapours, flammable liquids or combustible dust.

UNCOMPROMISING SAFETY
All design aspects of the MTP8000Ex Series have been optimised to ensure the highest levels of safety, ease of use and ruggedness for users who work in hazardous environments.

OIL & GAS
Workers in the Oil & Gas industry are constantly at risk of escaping flammable gases or liquids and they are often required to work in extreme conditions of heat and dust or cold and wet. Good communications are the key to operating effectively in these dangerous conditions and workers rely on ATEX radios to keep them safe.

FIRE & RESCUE
Fire and Rescue teams have long relied on two-way radios to provide effective communications and save lives. But when firefighters respond to a traffic accident involving a petrol tanker or an incident at a petrochemical plant, they need ATEX radios to communicate safely and prevent an incident from becoming an emergency.

MINING
Escaping flammable gases, such as methane, are a major risk in the mining industry. Communication is key to working effectively in such hostile and dangerous conditions and ATEX radios are needed to keep miners safe particularly when explosives are used.

AIRPORTS
Airports are complex facilities where effective and reliable communications are of great importance. But wherever there is a potential exposure to fuel, there is a risk of explosion. Increasingly, ATEX radios are used in areas where workers and on-site fire crews are in close proximity to aviation fuel to keep them safe.
WORK SAFER

PROTECT YOUR WORKERS AND KEEP THEM SAFE IN THE MOST HAZARDOUS ENVIRONMENTS

INDUSTRIAL ACCESSORIES FOR THE MTP8000Ex

ACTIVE NOISE CANCELLING RSM
Communicate in the most demanding PetroChem and Industrial environments. Two PTTs (side and front), High/low volume control, emergency button, 1 programmable button. Supports Peltor helmet comms and 3.5mm discreet listening accessories.

TACTICAL HEADSETS*
For operations in noisy environments. Active noise cancellation protects hearing while maintaining peripheral listening and face-to-face conversations.

TWIN CUP HEADSETS*
For operations in very noisy environments. Provides the highest level of hearing protection with two layers of noise attenuation in each ear cup.

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.

*Wired and wireless accessories available

LOUD AND CLEAR AUDIO
The MTP8000Ex Series has loud and clear audio for use in noisy environments.

COVERAGE INDICATOR
For ultimate safety, the radio is fitted with an LED Coverage Indicator at the base of the antenna, clearly showing when coverage is poor.

LARGE EMERGENCY BUTTON
The MTP8000Ex Series includes an improved and larger emergency button, making it easier to use even with thick gloves.

ENHANCED COVERAGE
High receiver sensitivity and high transmit power gives the MTP8000Ex Series greater coverage and enhanced in-building performance.

BUILT TO BE SAFE
Built to the latest ATEX and IECEx safety standards, the MTP8000Ex Series radios ensure that workers and firefighters can operate safely in the most hazardous environments.

BLUETOOTH AUDIO
A range of wireless accessories can be securely and reliably paired, from headsets and microphones for use in loud environments to large PTT buttons for use with protective clothing, reducing the risk of catching wires.

INDUSTRIAL ACCESSORIES FOR THE MTP8000Ex

ACTIVE NOISE CANCELLING RSM
Communicate in the most demanding PetroChem and Industrial environments. Two PTTs (side and front), High/low volume control, emergency button, 1 programmable button. Supports Peltor helmet comms and 3.5mm discreet listening accessories.

TACTICAL HEADSETS*
For operations in noisy environments. Active noise cancellation protects hearing while maintaining peripheral listening and face-to-face conversations.

TWIN CUP HEADSETS*
For operations in very noisy environments. Provides the highest level of hearing protection with two layers of noise attenuation in each ear cup.

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.

*Wired and wireless accessories available
The MTP8000Ex Series is optimised for excellent audio performance in all types of noisy environments. Audio through both the speaker and accessories is clearer, even at full volume, and the user can be heard clearly against the loudest background noise.

High receiver sensitivity and high transmit power gives the MTP8000Ex Series greater coverage and enhanced in-building performance. For ultimate safety, the radio is fitted with an LED coverage indicator at the base of the antenna, alerting the user when coverage is poor.

The MTP8000Ex Series radios are built to work in the toughest and most hazardous environments, in both the cold and wet or the dust and heat, with IP65, IP66 and IP67 ratings.

For simplicity, the interface makes use of icons and the menus can be configured to only show the options needed for particular groups of users.

The display panel on the top of the radio makes it easy to see emergency notifications, battery level, volume level and talkgroup when the radio is worn on the belt.

The T-bar grip makes the radio harder to drop and easier to hold, even for long periods. The exaggerated control knob to select volume and talkgroup, textured PTT button and tactile keypad make it easier to use.

The use of stick-on labels or external markers to identify the radio can compromise the ATEX certification. Now, the MTP8000Ex Series radios can be easily identified without causing any risk to user safety.

Smart Devices and tablet PCs can also be securely connected to the radios using Bluetooth for data collection or other applications, such as work scheduling.

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.

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.
INTEGRATED BLUETOOTH
Secure Bluetooth Wireless technology is integrated into the MTP8000Ex Series, ensuring that a range of wireless accessories and collaborative devices can be securely and reliably paired with the radios.

ADVANCED ERGONOMICS
The MTP8000Ex Series has been engineered to redefine usability, from the T-Bar profile to the exaggerated control knob, tactile keypad, enlarged emergency button and textured PTT button.

EXTENDED BATTERY LIFE
With an extended battery life in excess of 16 hours, workers can be confident that the MTP8000Ex Series radios will be ready for a longer shift in the event of emergencies or unplanned situations.

EASIER TO USE
With intuitive user interface, innovative nameplate, large main display and the secondary top display making it easier to see emergency notifications, talk group status or battery condition, the MTP8000Ex Series is designed to be easier to use.

ENSURE SUPPORT FOR YOUR WORKERS WHEREVER THEY ARE AND WHATEVER THE CHALLENGE

ENHANCED COVERAGE
With high receiver sensitivity and high transmission power, urgent messages will be heard by the worker in locations where other radios would be out of coverage.

LOUD AND CLEAR AUDIO
Automatic Gain Control allows workers to hear and be heard in any situation without the worry of loud background noise or interference.

EXTENDED BATTERY LIFE
With an extended battery life in excess of 16 hours, workers can be confident that their radios will be ready for a longer shift in the event of emergencies or unplanned situations.

ADVANCED ERGONOMICS
The radios are designed with advanced ergonomics to be used easily by workers in protective clothing and heavy gloves.

RUGGED DESIGN
Built to the latest ATEX and IECEx safety standards for use in the toughest and most hazardous environments with IP65, IP66 and IP67 ratings.

BLUETOOTH SENSORS
Bluetooth can also be used to pair the radios with bio-monitors or gas sensors to automatically alert control and the workers to dangerous conditions.

STANDARD ACCESSORIES FOR THE MTP8000Ex

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

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

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

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.
MTP8000Ex Series

REDDEFINING THE ATEX RADIO
WORK SMARTER WITH INTEGRATED BLUETOOTH

The MTP8000Ex Series radios have integrated Bluetooth wireless technology, providing a secure link to devices, which can be matched to the specific needs of the worker. These collaborative solutions combine devices and applications to improve the safety, effectiveness and efficiency of your workers.

WIRELESS ACCESSORIES
Fast wireless Push-To-Talk buttons can be used when protective clothing and gloves make it difficult to reach the radio. Wireless headsets and mics can be worn under protective clothing so workers can communicate clearly in hazardous environments.

DATA COLLABORATION
A mobile computing device or tablet PC can be connected to the radio and used to collect information, such as meter readings, sending the data back to control through the radio.

HEART RATE MONITOR
A heart rate monitor can be connected to the radio and used to detect if the worker or firefighter is at risk of heart problems or failure during strenuous activity or has collapsed in a hazardous environment.

GAS SENSORS
Body-worn gas sensors can be linked to the radio to automatically alert control and the worker to build-up of dangerous gases. If one sensor picks up a gas leak, the other workers and control can be warned immediately.

LOCATION SENSORS
Bluetooth beacons across the facility or in high-value buildings can be used to detect the presence of the radio and track the location of a worker during a shift or a firefighter during an incident.
## GENERAL
- **Battery performance:**
  - Duty cycle 5/5/90 > 16 hours
  - Duty cycle 5/35/60 > 12 hours
- **Loud and clear audio:** > 1.2W
- **Integrated audio howling suppression**

## RF SPECIFICATIONS
- **Frequency bands:**
  - 350-470 MHz, 800 MHz
- **Transmitter RF Power class:**
  - Class 3L & class 4
- **Receiver class:**
  - A and B
- **Rx static sensitivity:**
  - -118 dBm (min), -116 dBm (typical)
- **Rx dynamic sensitivity:**
  - -109 dBm (min), -107 dBm (typical)

## ENVIRONMENTAL SPECIFICATIONS
- **Operating temperature (°C):**
  - Non hazardous locations: -30 to +55
  - Hazardous locations: -20 to +55
- **Storage temperature (°C):**
  - -40 to +85
- **Humidity:**
  - ETS 300-019-1-7 Class 7.3E, MIL STD 810 D, E, F, G
- **Dust and water ingress protection:**
  - IP64, IP65, IP66, & IP67 per IEC-60079-0:2011 & IEC-60529
- **Shock, drop and vibration:**
  - ETS 300-019-1-7, MIL-STD 810 D/E/F/G
- **Shock, drop and vibration:**
  - Dust, water, rain, waterjet proof & submersible

## MAIN VOICE SERVICES
- **Full duplex TMO private, PABX, PSTN, emergency**
- **Half duplex TMO private, group, emergency**
- **Half duplex DMO private, group, emergency**
- **Inter-MNI, gateway, repeater**
- **PTT double push**
- **Adaptive audio control**

## EMERGENCY CALL MANAGEMENT
- **Tactical emergency group call to ATTACHED talkgroup**
- **Non-tactical emergency group call to DEDICATED talkgroup**
- **HDT/MC emergency - hands free in moments that matter**
- **Emergency status message sent to dispatch console**
- **Smart TMO / DMO selection for emergency call set up - ensure call gets through**
- **Preemptive priority calls**

## DMO REPEATER SERVICES
- **DMO repeater type 1A for efficient single channel operation**
- **DMO presence support for effective channel management voice, status & SDS repeated**
- **Emergency calls**

## BLUETOOTH AUDIO & DATA SERVICES
- **Bluetooth security:***
  - Bluetooth 2.1 introduces mandatory encryption with secure simple pairing (SSP), easier pairing and preventing sniffing / hacking
  - Bluetooth 4.0 supports Security Manager (SM) services with AES encryption
- **Bluetooth audio:**
  - Headset profile
- **Bluetooth data services:**
  - Serial Port Profile, Dial Up Networking Profile, Discovery mode, Generic Access Profile, Object Push Profile, Generic Attributes Profile (GATT), Heart Rate Profile, Battery Service Profile, Devices Info Profile.

## ATEX SPECIFICATIONS
- **IECEx SPECIFICATIONS**
  - IEC 60079-0:2011
  - IEC60079-11:2011
- **ATEX SPECIFICATIONS**
  - EN60079-0:2012
  - EN60079-11:2012

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### IECEx SPECIFICATIONS
- **Explosion-proof Operating Material**
- **Intrinsic Safety (Zone 1 & 2)**
- **Highest Gas Subgroup**
- **Temperature Class**
- **Suitable for Zone 1 & 2**
- **Ambient Temperature Range**
- **Dust & Water Ingress Protection**

### ATEX SPECIFICATIONS
- **Gas (Environment)**
- **Surface Industries (Equipment Group)**
- **Equipment Category: 2**
- **Equipment Group: Surface Industries**
- **Temperature Class: II 2 G Ex ib IIC T4 Gb**
- **Ambient Temperature Range: -20°C to +55°C**
- **Dust & Water Ingress Protection**
- **Suitable for Zone 1 & 2**
- **Gas**

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## TECHNICAL EXPERTISE
- Experienced technical support engineers work with you to diagnose and resolve hardware and software problems resulting in swift resolution of issues for your end users.

## CUSTOMER SERVICE
- A single source of support delivered through our state-of-the-art diagnostics equipment, repair tools, and an extensive inventory of replacement parts help us to provide expert repair on your TETRA terminals.

## PEACE OF MIND
- Our support programme protects your hardware investments from every angle, all designed to optimise device performance, minimise downtime and keep operations running smoothly and within budget.
**Ambient Temperature Range**

- +20°C to +55°C
- IP65/66/67

**Dust & Water Ingress Protection**

- IP65/66/67

**Intrinsic Safety (Zone 21/22)**

- II 2 D Ex ib IIC T90°C Db

**Intrinsic Safety (Category M2)**

- I M2 Ex I 

**Explosion-proof Operating Material**

- Conductive Dust (Group B)

**Equipment Protection Level (Zone 21/22)**

- Group I (Mining)

**Equipment Protection Level b (Zone 21/22)**

- Group I (Mining)

**Equipment Protection Level b (Zone 21/22)**

- Group I (Mining)

**Max. Temperature of Device Surface**

- Conductive Dust (Group B)

**Explosion-proof Operating Material**

- Surface Industries (Equipment Group)
For more information on the MTP8000Ex Series TETRA ATEX radios, please visit www.motorolasolutions.com/MTP8000Ex