MOTOTRBO™ DP4000 Ex SERIES ATEX PORTABLE RADIOS

KEEPING YOU SAFER IN THE TOUGHEST ENVIRONMENTS

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MOTOTRBO ATEX SOLUTIONS: THE PROFESSIONAL CHOICE FOR HAZARDOUS AREAS

Threats from explosive gas, combustible dust or chemical vapours, from an oil rig to an underground mine, your workers confront them daily. Safe, reliable communication is absolutely critical in such dangerous environments. That's where the power and performance of MOTOTRBO digital radios stand out.

The MOTOTRBO DP4000 Ex Series combines the best of two-way radio functionality with the latest digital technology. It integrates voice and data seamlessly, offers enhanced features that are easy to use, and delivers increased capacity to efficiently connect all your crews. With exceptional voice quality, long battery life and ATEX-rated for safety, the radios keep your workers connected safely and productively, wherever the job takes them.

DP4401 Ex (Non-Display) **DP4801 Ex (Display)** **DP4401 Ex Ma (Non-Display)** **DP4801 Ex Ma (Display)**

COMMUNICATE CLEARLY IN DIFFICULT CONDITIONS

DP4000 Ex SERIES

These high-performing portables have the highest ATEX gas explosion group rating. Ideal for hazardous work with loud noise, long shifts, rough weather and dangerous conditions including combustible dust, explosive chemicals, gas leaks, flammable hydrocarbons and more.

DP4401 Ex - Rugged, easy to use, non-display model for hazardous open environments

DP4801 Ex - Adds a full keypad and large colour display for access to advanced features like texting and caller ID

DP4401 Ex Ma - Rugged, easy to use, non-display model for underground mining environments.

DP4801 Ex Ma - Full keypad, colour screen model, for underground mining environments.

ATEX DUST PROTECTION:

- **II** Group II, other environments, (chemical industries, refineries, etc.)
- **2D** High protection, Category 2 equipment for Zone 21 and 22. D = Dust
- **Ex** Explosion-proof equipment, certified to European ATEX Directive and IECEx
- **IIIC** Enclosure certified for dust Zone 21 by IP rating
- **T130°C** Maximum enclosure surface temperature

ATEX GAS PROTECTION:

- **II** Group II 'other' environments
- **2** High Protection, Category 2 for Zone 1 and 2
- **G** Gas
- **Ex** Explosion-proof equipment, certified to European ATEX Directive and IECEx
- **ib** Type of ignition protection (Zones 1 and 2)
- **IIC** Protection in the most explosive gas environment (hydrogen)
- **T4** Device surface temperature will not exceed 135°C

ATEX MINING PROTECTION, DP4000 Ex SERIES:

- **I** Group I
- **M2** Equipment is suitable for use in surface mines and installations likely to be endangered by firedamp and/or combustible dust
- **Ex** Explosion-proof equipment
- **ib** Type of ignition protection (Zones 1 and 2)
- **I** Explosion Group, I = Methane

ATEX MINING PROTECTION, DP4000 Ex Ma SERIES

- **I** Group I
- **M1** Equipment is intended for use in underground mines as well as surface installation of such mines endangered by firedamp and/or combustible dust including coal dust
- **Ex** Explosion-proof equipment
- **ia** Types of ignition protection (Zones 0, 1 and 2)
- **I** Explosion Group, I = Methane

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SO RUGGED, IT WITHSTANDS THE WORST

The DP4000 Ex Series is so rugged and durable, it meets the most stringent standards and has the highest ATEX rating. Whether working in an oil refinery, chemicals factory or mine, dust and water can damage radios, but the DP4000 Ex Series 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's unique Accelerated Life Test to simulate five years of hard use.

EASY TO OPERATE

The DP4000 Ex Series features large PTT, volume, channel knobs and programmable buttons that are easy to use, even when wearing gloves. The large, colour display (DP4801 Ex and DP4801 Ex Ma only) 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.

KEEP CREWS COMMUNICATING, EVERYWHERE

MOTOTRBO's IP Site Connect uses the Internet to extend coverage to workers anywhere in the world and scalable, single-site Capacity Plus expands capacity to over 1,000 users. Linked Capacity Plus combines the high user-density call management of Capacity Plus with the wide area coverage of IP Site Connect to connect crews at various locations affordably.

Use Motorola's Application Developer Program to adapt the DP4000 Ex Series to your unique needs in the future – from location tracking using the built-in GPS receiver to text messaging or call logging and recording.**

WORK SAFELY, FROM PIPELINE TO POWER PLANT

Everything about the DP4000 Ex Series is designed for worker safety. Loud, clear performance and innovative features like Intelligent Audio and Transmit Interrupt help ensure messages get through in the noisiest environments. And like the radio, Motorola's audio and energy accessories meet the most stringent ATEX standards.

An integrated man-down and lone worker feature 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.

PUT YOUR RADIOS TO WORK

DIGITAL PERFORMANCE
The DP4000 Ex Series meets the ETSI DMR Standard to deliver integrated voice and data, clearer voice communications, and up to 40% longer battery life than analogue.

EXCEPTIONAL AUDIO
Hear and speak clearly in loud environments, negate background noise from heavy equipment, engines and trucks.

EASY TO USE
Ergonomically designed for ease of use, with customisable buttons and an intuitive user interface.

COMPLETE ATEX-CERTIFIED SOLUTION
IMPRES™ smart audio and energy accessories meet the same tough specs, for a complete system you can rely on.

PMLN6089

PMLN6090

PMMN4094

PMMN4067
(not certified for Ex Ma radios)

PMLN6368

EXTEND SAFETY TO LONG SHIFTS AND NOISY AREAS WITH ATEX-CERTIFIED ACCESSORIES

From the drilling platform to the oil refinery, you deal with extremes - that's why it is critical to use the only ATEX accessories designed to withstand the perils and work with these MOTOTRBO ATEX portables.

BE IN THE CLEAR WITH AN IMPRES RSM
The IMPRES Remote Speaker Microphone (RSM) ensures hassle free communication. Along with IMPRES audio, this microphone features Windporting which makes it easy to use in all weather conditions.

PELTOR™ HEADSETS HANDLE TOUGH SHIFTS, HEAD ON
These heavy duty headsets are ATEX-certified for extreme conditions and comfortable for long shifts. Choose from the standard headset to the Tactical XP headset that allows you to control the volume to accommodate the level of ambient noise you must be alert to. These headsets are available as over-the-head or attach-to-hardhat models.

IMPRES™ BATTERIES AND CHARGERS
Our high-capacity IMPRES battery maximizes talk time and optimizes battery cycle life – automatically.

Only IMPRES batteries can be charged 150 additional times as compared to a standard battery – a 43% increase in charge cycles. This means if you charge your radios two to three times a week, you'll get more than an extra year out of every IMPRES battery.

DURABLE CARRY CASES
High quality leather carry cases are designed to withstand harsh conditions in hazardous environments. Swivel belt loop cases keep the case secure while allowing the radio to swing freely as you move.

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GENERAL SPECIFICATIONS

	DP4801 Ex DISPLAY	DP4401 Ex NON-DISPLAY	DP4801 Ex Ma DISPLAY	DP4401 Ex Ma NON-DISPLAY
Frequency Band	UHF B1 (403-470MHz) and VHF (136-174MHz)			
Zone Capacity	250	2	250	2
Max. No. of Conv. Channels or Personality Capacity	1000	32	1000	32
Dimensions (H x W x L) with Li-Ion battery	138.5 x 56.7 x 39.8mm	138.5 x 56.7 x 37.8mm	138.5 x 56.7 x 39.8mm	138.5 x 56.7 x 37.8mm
Weight with Li-Ion battery	482.5g	455.5g	482.5g	455.5g
Power Supply	7.4 V Nominal			
FCC Description	UHF B1: ABZ99FT4091 VHF: ABZ99FT3089		—	
Programmable Buttons	5	3	5	3
Integrated GPS Receiver	Yes		No	
IC Description	UHF: 109AB-99FT4091 VHF: 109AB-99FT3089		—	
Gas Rating	ATEX: Class II 2G Ex ib IIC T4 Gb IECEx: Ex ib IIC T4 Gb			
Dust Rating	ATEX: Class II 2D Ex ib IIIC T130 °C Db IECEx: Ex ib IIIC T130°C Db			
Mining Rating	ATEX: I M2 Ex ib I Mb IECEx: Ex ib I Mb		ATEX: I M1 Ex ia I Ma IECEx: Ex ia I Ma	
Battery Part Number	NNTN8359		NNTN8840	
Typical** battery life Analogue	16 hrs			
Typical** battery life Digital	19 hrs			

RECEIVER

	ALL MODELS
Channel Spacing	12.5/20/25KHz
Frequency Stability (-30° C, +60° C, +25° C)	±0.5ppm
Analogue Sensitivity (12 dB SINAD) Typical	0.25uV
Intermodulation (TIA603C)	70dB
Adjacent Channel Selectivity (TIA603) - 1T	60dB @ 12.5kHz / 70dB @ 20/25kHz
Adjacent Channel Selectivity (TIA603C) - 2T	45dB @ 12.5kHz / 70dB @ 20/25kHz
Spurious Rejection (TIA603C)	70dB
Rated Audio	0.5W
Audio Distortion @ Rated Audio	5%, 3% (typical)
Hum and Noise	-40dB @ 12.5kHz -45dB @ 20/25kHz
Audio Response	TIA603C
Conducted Spurious Emission (ETSI)	-57dBm

TRANSMITTER

	ALL MODELS
Channel Spacing	12.5/20/25KHz
Frequency Stability (-30° C, +60° C)	±0.5ppm
Power Output	1W
Modulation Limiting	±2.5kHz @ 12.5kHz ±4.0kHz @ 20kHz ±5.0kHz @ 25kHz
FM Hum and Noise	-40dB @ 12.5kHz / -45dB @ 20/25kHz
Conducted / Rated Emission (ETSI)	36 dBm < 1GHz, -30 dBm > 1GHz
Adjacent Channel Power	60dB @ 12.5kHz, 70dB @ 20/25kHz
Audio Response	TIA603C
Audio Distortion (per EIA)	3%
FM Modulation	12.5 kHz: 11K0F3E 25 kHz: 16K0F3E

ENVIRONMENTAL SPECIFICATIONS

	ALL MODELS
Operating Temperature	-20°C to +55°C
Storage Temperature	-40°C to +85°C
Thermal Shock	MIL STD 810D, E, F, G
Humidity	MIL STD 810D, E, F, G
ESD	IEC-801-2KV
Water Intrusion	IEC-60529 IP67
Packaging Test	MIL STD 810D, E, F, G
Ingress Protection (IP) Rating	IP67*

*DP4000 Ex Series radios are rated IP67 and are also certified to the highest ingress protection available under ATEX/IECEx test conditions - IP64

**Ma radios do not have GPS.

***Assuming 5/5/90 duty cycle, no option board, no GPS, conventional operation.

For more information on how to communicate safely in hazardous locations, visit motorolasolutions.com/mototrbo or find your closest Motorola representative or authorised Partner at motorolasolutions.com/contactus.

MOTOTRBO
DIGITAL
REMASTERED.

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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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