

# ANC REMOTE SPEAKER MICROPHONE

COMMUNICATE CLEARLY IN  
HARSH ENVIRONMENTS



PMMN4094





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In harsh environments, you want to talk and hear clearly above the noise. Whether you are in a noisy oil refinery or in the midst of fighting a fire, you can't afford to lose seconds struggling to get your message through. The Active Noise Cancelling (ANC) Remote Speaker Microphone (RSM) has been designed to withstand the toughest environments, while providing clear communications.



## ATEX ACTIVE NOISE CANCELLING RSM



### ENHANCED AUDIO

The active noise cancellation technology ensures your voice, not the surrounding noise, goes through clearly. Likewise, the speaker has been designed to let users hear above the noise, which can be difficult in harsh environments. The digital signal processing also reduces audio feedback, allowing users to work in close proximity with each other.

### COMMUNICATE CLEARLY IN WINDY AND WET CONDITIONS

The ANC RSM incorporates the Windporting feature present in many of Motorola's remote speaker microphones. Windporting reduces the adverse effect of wind noise and provides intelligible audio for users working under windy conditions. This is especially beneficial for users working in inclement weather or in oil refineries that are located near windy sea shore conditions.

Firefighters don't need to worry any longer about water-clogged microphones or speaker grills that prevent communication from getting through. Water drains quickly from the ANC RSM, ensuring clear audio so that users can focus on critical tasks.

### DESIGNED WITH THE RIGHT FIT AND FEEL

The ANC RSM is designed for ease of use in the toughest conditions. Exaggerated controls, including large glove friendly front and side Push-To-Talk buttons, allow you to transmit with ease even when wearing protective gear and other equipment that can make reaching for a side Push-To-Talk challenging.

The rugged housing includes emergency and volume controls that are large for quick access but protected to avoid accidental activation. Now you can focus on the job at hand without worrying about fumbling with your equipment.

### VERSATILITY MEETS PERFORMANCE

The ANC RSM is equipped with two audio jacks, allowing you to use your RSM with compatible headsets. For users preferring a simple earpiece, a 3.5mm-plug earpiece is available with the ANC RSM. The RSM has a unique sliding cover that ensures the 3.5mm audio jack is protected when not in use, preventing any debris or liquids from entering the device.

Further, the Nexus-jack has an open ATEX/IECEx interface, enabling third party headsets with compatible interfaces, such as the Draeger FPS-Com-Plus, to be used safely. Select from a variety of Peltor™ Headsets that have been certified with the ANC RSM to ensure optimum performance and audio quality. Any ATEX/IECEx certified accessory with a matching set of input parameters published in the certificates can be safely connected.

## COMPATIBLE AUDIO ACCESSORIES

PMLN6087 Peltor high attenuation headset with boom mic., headband

PMLN6089 Peltor Tactical XP headset with boom mic, helmet attachment

PMLN6090 Peltor Tactical XP headset with boom mic, headband

PMLN6092 Peltor high attenuation headset with boom mic., helmet attachment

PMLN6333 Peltor Twin Cup headset with boom mic, helmet attachment

PMLN7188 3.5 mm earpiece with clear acoustic tube



PMLN6087



PMLN6089



PMLN6090



PMLN6092



PMLN7188

# ANC REMOTE SPEAKER MICROPHONE SPECIFICATIONS

## COMPATIBLE RADIOS

DP4401 Ex, DP4801 Ex. Requires Radio Firmware: R02.40.01 or later

## GENERAL

Part Number	PMMN4094
Dimensions (RSM head only)	68mm (W) x 94mm (H) x 29mm (D) (without clip)
Weight (complete kit)	~290 grams
Clip	Swivel Clip with D-ring
Power Source	Radio Battery
Secondary Accessory Interfaces <sup>1</sup>	The Tx/Rx 4-pole Nexus-jack has the following certified ATEX/IECEX interface parameters: U <sub>o</sub> = 7 V, I <sub>o</sub> = 0.160 A, P <sub>o</sub> = 0.275 W, C <sub>o</sub> = 1 μF, L <sub>o</sub> = 1 mH The Rx-only 3.5mm jack with locking mechanism has the following certified ATEX/IECEX interface parameters: U <sub>o</sub> = 8.4 V, I <sub>o</sub> = 0.142 A, P <sub>o</sub> = 0.243 W, C <sub>o</sub> = 1 μF, L <sub>o</sub> = 1 mH

## MICROPHONE

Type	Electret Condenser Microphone
Sensitivity	-44 ± 3 dBV/Pa at 1 kHz
Distortion (THD)	<3% at 1 kHz
Intelligent Audio	Supported by RSM
IMPRES™	Yes
Noise Cancellation	Active Noise Cancelling
Windporting	Yes

## SPEAKER

Diameter	36mm
Impedance	20 ohm
Rated Output Level	90 dB SPL Typical at 0.5W, 30 cm
Maximum Output Level (at max radio volume)	94 dB SPL Typical, at 30 cm 97 dB phon Typical, at 30 cm
Distortion (THD)	<10% typical at 1 kHz, 0.5W, at 30cm

## CONTROLS

Top	Orange Programmable Button
Side	Side Push-To-Talk (PTT) (525 000 Cycles) and One Black Programmable Button
Front	Front Push-To-Talk (PTT) (525 000 Cycles)
Volume	Hi-Lo

## CABLE

Length	390mm (Resting Position), 1200 mm (Fully Stretch)
Flex Life	100,000 Cycles (Minimum), Bend 90° Left-Right and Front-Back with 2lbs Load
Pull Strength	40 lbs (Minimum)
Cable Jacket	UL94 V-0 Compliant

## ENVIRONMENTAL

Operating Temperature	-30°C to +60°C
Storage Temperature	-55°C to +85°C
Thermal Shock	-57°C to +80°C
Humidity	90% - 95% Relative Humidity at +50°C for 8 hours
Rain	MIL STD 810G Method 506.4
Salt Fog	MIL STD 810G Method 509.4 Procedure 1
Dust	MIL STD 810G Method 510.4 Procedure 1
Vibration	MIL STD 810G Method 514.5 Procedure 1 Category 24
Mechanical Shock	MIL STD 810G Method 516.5 Procedure 1
ESD	IEC / EN 61000-4-2
IP Rating	IP67
Impact Grill	1.25" diameter steel ball drop, 30cm to 100cm at 10cm intervals, 8 times at each height

## ATEX / IECEX<sup>1,2</sup>

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 T90°C Db; IECEX: Ex ib IIIC T90°C Db
Mining Rating	ATEX: Class I M1 Ex ia I Ma; IECEX: Ex ia I Ma
Ambient Temperature	Ta: -20°C to +55°C
ATEX/IECEX IP Rating	IP64, IP67

<sup>1</sup> When combining accessories and radios, the resulting ATEX/IECEX classification for the system is always the lowest classification of the system elements.

<sup>2</sup> ATEX Specifications: EN60079-0:2012, EN60079-11:2012. IECEX Specifications: IEC 60079-0:2011, IEC60079-11:2011.

Note: Specifications subject to change without notice.

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