

workplace

hearing protection





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Sensear Drives a New Approach to Hearing Protection and High-Noise Communication

The Problems Workers Face in High-Noise Environments

Compliance. Communication. Safety. A noisy environment is one of the main stress triggers for employees and can contribute to reduced productivity. In high-noise environments, sounds coming from machinery or equipment produce high or extreme noise levels that can adversely affect communication between workers. Common practices like shouting at others or asking them to talk loudly are barely effective. If employees cannot alert each other, accidents can occur and cause injuries. As OSHA requires workers to wear hearing protection in environments where noise reaches or exceeds 85 dB(A), workers run into issues by removing their hearing protection when they need to communicate with one another. Most employees have a critical requirement to communicate with colleagues without leaving hazardous noise environments, and traditional hearing protection headsets restrict the workers' ability to hear, making communication challenging or even impossible. Therefore, workers need a solution that provides the correct level of hearing protection, while allowing employees to communicate and have total situational awareness.



The Solution: SENS® Technology

SENS® takes noise cancellation to a whole new level. By isolating and enhancing speech while reducing harmful background noise, users can hear speech and stay protected while remaining aware of their surroundings in high-noise environments.

SENS® Technology brings low noise hearing experiences into high noise environments by enabling users to communicate effectively and remain aware of their surroundings while protecting their hearing. SENS® delivers three critical benefits in the one technology. It's simple - if you are looking for the best high noise communication devices, don't ask for noise-canceling ear protection, ask for SENS® electronic ear protection.

SENS® is in a full range of hearing protection and communication solutions.

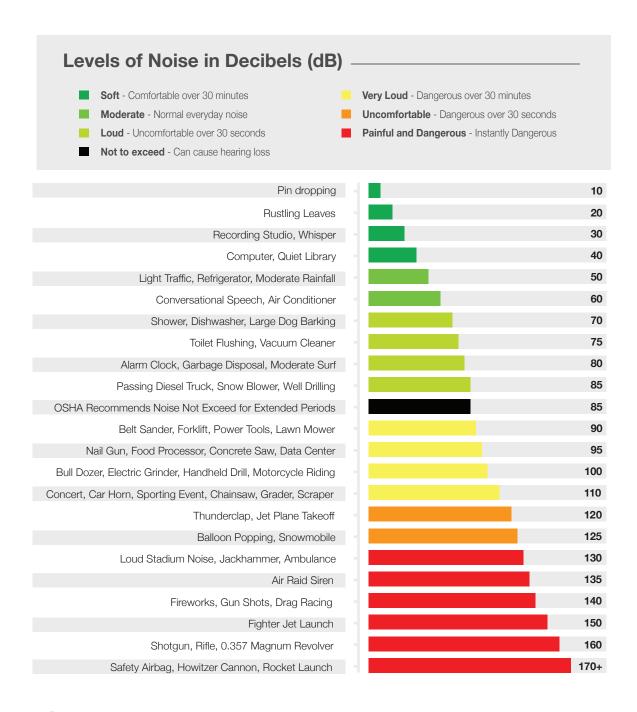


do you work in a

high-noise environment?



The graphic below will help you determine whether or not you work in a high-noise environment that would require hearing protection.





Sensear in Action ||||||||||

Hear Speech and Stay Protected with SENS® Technology

SITUATIONAL AWARENESS

When working in a hazardous plant or work environment, you often hear that you need to be aware of your surroundings or to be risk-averse. SENS® enables 360° situational awareness, retains original sound characteristics, and reduces the risk of accidents. It accomplishes this by isolating and enhancing speech while reducing harmful background noise, so users can hear speech and stay protected while remaining aware of their surroundings in highnoise environments. SENS® determines the nature, distance, and directionality of all sounds including speech, machinery/vehicles, and alarms.

Featured industries: Solid Waste, Lumber, and Transportation

COMMUNICATION

Most employees have a critical requirement to communicate with colleagues and traditional hearing protection headsets restrict the workers' ability to communicate. Sensear delivers a total high-noise communication solution by ensuring users can communicate faceto-face, at short and long distances via two-way radio, Bluetooth® cell phone, and other communication systems.

Featured industries: Data Centers, Manufacturing, and Road Construction

EXTREME NOISE ENVIRONMENTS

In extremely loud environments, traditional methods of hearing protection just don't provide enough noise reduction. That's where double hearing protection comes in. While double hearing protection is achieved by wearing both earplugs and a hearing protection headset device at the same time, Sensear is the only manufacturer of double protection headsets with earplugs integrated into the earmuffs.

Featured industries: Steel Milling, Agriculture, and Construction

HAZARDOUS LOCATIONS

Because of the nature of hazardous work environments, hearing protection may need to be certified as Intrinsically Safe (IS or Ex). Products marketing intrinsically safe must be certified by an accredited organization. Sensear's range of Hazardous Location Smart Headsets and Earplugs are certified by five major standards (UL, CSA, TIA, ATEX, and IECEx). As a global supplier to some of the largest industries and users in these environments, Sensear takes pride in providing the highest quality and testing standards in our devices. Documentation is available upon request.

Featured industries: Oil & Gas, Food Processing, and Mining

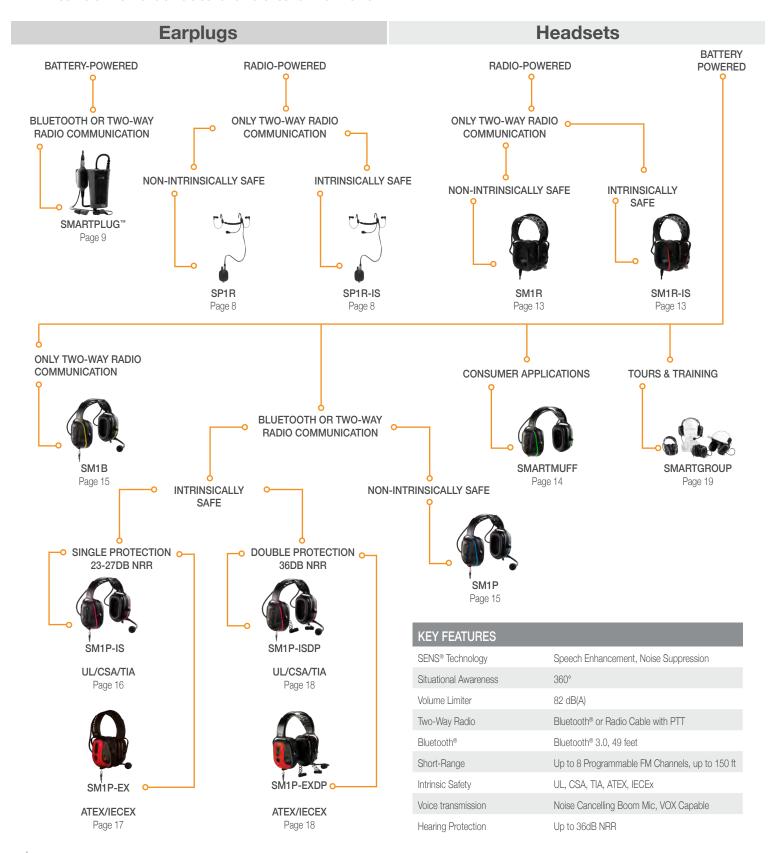






Sensear Noise Cancelling | Earplugs and Headsets

Sensear is solving high noise communication problems for many of the world's leading companies. Our range of Smart Headset and Smart Earplug products are comprehensive communication solutions for many applications in some of the world's noisiest and harshest environments.



What type of communication earplugs do you need?



Feature Comparison Matrix:

PART NUMBER	SMPLUG030001	SP1RE02	SP1REIS02	SP1RM02	SP1RMIS02
SENS® Technology	•	•	•	•	•
360° Awareness	•	•	•	•	•
Volume Limiter	•	•	•	•	•
In-Ear Mic	•	•	•		
Boom Mic Option				•	•
Two-Way Radio	•	•	•	•	•
Bluetooth®	•				
Short-Range	•				
Intrinsic Safety			•		•
VOX-Capable				•	•
Radio-Powered		•	•	•	•
Battery-Powered	•				

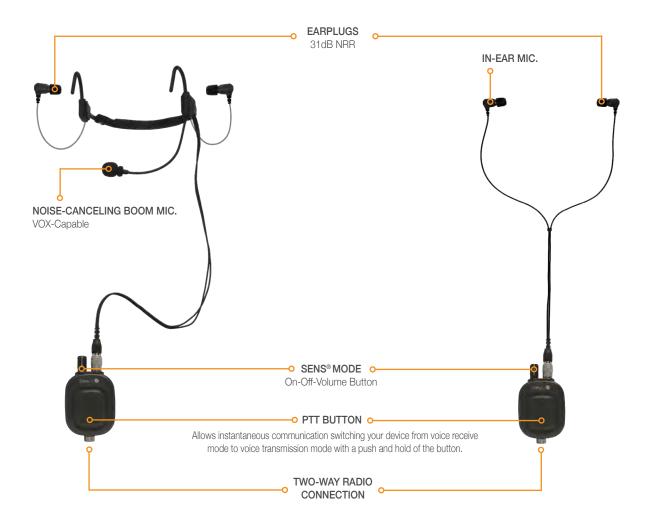
Sensear Earplugs Part Number Index:

PRODUCT NAME	PART NUMBER	MIC STYLE	NRR
CD4D	SP1RE02	In-Ear Mic	31dB
SP1R	SP1RM02	Boom Mic	31dB
0040 10	SP1REIS02	In-Ear Mic	31dB
SP1R-IS	SP1RMIS02	Boom Mic	31dB
smartPlug™	SMPLUG030001	In-Ear Mic	31dB

Smart Radio-Powered Communication Earplugs | SP1R / SP1R-IS

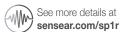
SP1R: An In-Ear Solution Powered by Radio

The SP1R is a revolution in lightweight hearing protection. Built specifically to enhance two-way radio communications in high-noise environments, it is powered by your two-way radio, thus eliminating the need for charging. The SP1R delivers Sensear's exceptional SENS® Technology into the most compact hearing solution in the industry. In addition to the lightweight, rugged boom microphone headset, the SP1R offers an in-ear microphone specifically for users of respirators or other equipment that restricts boom-mic usage. Additionally, the SP1R has an intrinsically safe option, the SP1R-IS, with TIA, CSA, & UL certifications.



PART NUMBER	DESCRIPTION	NRR
SP1RE02	Two-Way Radio Earplugs with In-Ear Mic	31dB
SP1RM02	Two-Way Radio Earplugs with Boom Mic	31dB
SP1REIS02	Hazardous Location Two-Way Radio Earplugs with In-Ear Mic	31dB
SP1RMIS02	Hazardous Location Two-Way Radio Earplugs with Boom Mic	31dB

KEY FEATURES	
Speech Enhancement	Face-to-Face Communication
Situational Awareness	360°
Volume Limiter	82 dB(A)
Two-Way Radio	Radio Cable with PTT
Intrinsic Safety	UL, CSA, TIA
Voice transmission	Noise Cancelling Boom Mic, VOX-Capable





smartPlug™: Noise Suppressing Earplugs for Industrial Environments

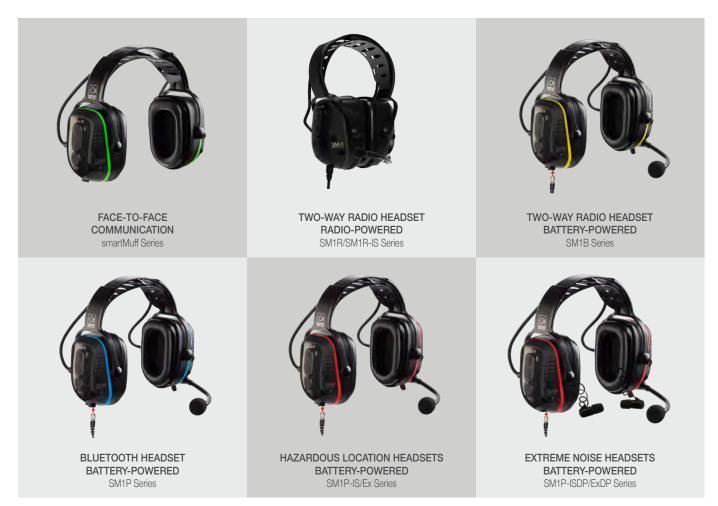
The smartPlug[™] is a digital hearing protection in-ear-headset solution for use in some of the world's largest industries, where high-noise and extreme environments are part of the everyday challenges to communications and hearing protection. The smartPlug™ also comes equipped with Sensear's industry-leading SENS® Technology that enhances speech and suppresses noise so users can communicate safely and effectively while maintaining 360° situational awareness. The smartPlug[™] features an in-ear microphone allowing users to clearly pick up speech and transmit through existing communication systems by two-way radio, Bluetooth®, or short-range connections.



PART NUMBER	DESCRIPTION	NRR		
SMPLUG030001	Bluetooth®, Two-Way Radio, and Short-Range Earplugs with In-Ear Mic	31dB		
See more details at sensear.com/products/earplugs/smartplug				

KEY FEATURES	
Speech Enhancement	Face-to-Face Communication
Situational Awareness	360°
Volume Limiter	82 dB(A)
Two-Way Radio	Bluetooth® or Radio Cable with PTT
Bluetooth®	Bluetooth® 3.0, 49 feet
Short-Range	Up to 8 Programmable FM Channels, up to 150 ft

What type of communication headset do you need?

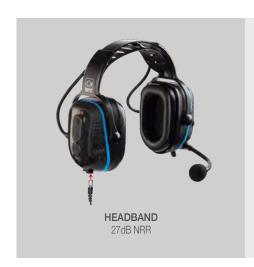


Feature Comparison Matrix:

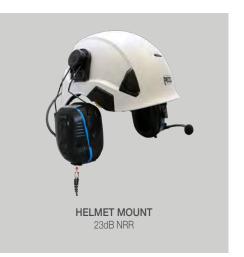
FEATURES	SM1R	SM1R-IS	SMARTMUFF	SM1B	SM1P	SM1P-IS	SM1P-EX	SM1P-ISDP	SM1P-EXDP
SENS® Technology	•	•	•	•	•	•	•	•	•
360° Awareness	•	•	•	•	•	•	•	•	•
Volume Limiter	•	•	•	•	•	•	•	•	•
Two-Way Radio	•	•		•	•	•	•	•	•
Bluetooth®					•	•	•	•	•
Short-Range					•	•	•	•	•
Intrinsic Safety		•				•	•	•	•
VOX-Capable	•	•		•	•	•	•	•	•
Dual Protection								•	•
Radio-Powered	•	•							
Battery-Powered			•	•	•	•	•	•	•

Sensear's Smart Communication Solutions | Headsets

What headset style do you need?







BEHIND-THE-NECK 24dB NRR

Sensear Headset Part Number Index:

PRODUCT NAME	PART NUMBER	HEADSET STYLE	COLOR	NRR
	SM1RB001	Headband	Black/Grey	27dB
SM1R	SM1RE001	Behind-the-Neck	Black/Grey	24dB
	SM1RH001	Helmet Mount	Black/Grey	23dB
	SM1RISB1	Headband	Black/Red	27dB
SM1R-IS	SM1RISE1	Behind-the-Neck	Black/Red	24dB
	SM1RISH1	Helmet Mount	Black/Red	23dB
	SM1BB002	Headband	Black/Yellow	27dB
SM1B	SM1BE002	Behind-the-Neck	Black/Yellow	24dB
	SM1BH002	Helmet Mount	Black/Yellow	23dB
	SM1PB002	Headband	Black/Blue	27dB
SM1P	SM1PE002	Behind-the-Neck	Black/Blue	24dB
	SM1PH002	Helmet Mount	Black/Blue	23dB
	SM1PBIS02	Headband	Black/Red	27dB
SM1P-IS	SM1PEIS02	Behind-the-Neck	Black/Red	24dB
	SM1PHIS02	Helmet Mount	Black/Red	23dB
	SM1PBISDP02	Headband	Black/Red	36dB
SM1P-ISDP	SM1PEISDP02	Behind-the-Neck	Black/Red	36dB
	SM1PHISDP02	Helmet Mount	Black/Red	36dB
	SM1PBEX02	Headband	Red/Grey	27dB
SM1P-Ex	SM1PEEX02	Behind-the-Neck	Red/Grey	24dB
	SM1PHEX02	Helmet Mount	Red/Grey	23dB



Sensear's Smart Communication Solutions | Headsets



PRODUCT NAME	PART NUMBER	HEADSET STYLE	COLOR	NRR
	SM1PBEXDP02	Headband	Red/Grey	36dB
SM1P-ExDP	SM1PEEXDP02	Behind-the-Neck	Red/Grey	36dB
	SM1PHEXDP02	Helmet Mount	Red/Grey	36dB
	SM1PBT02	Headband	Black/Orange	27dB
SmartGroup Leader	SM1PET02	Behind-the-Neck	Black/Orange	24dB
	SM1PHT02	Helmet Mount	Black/Orange	23dB
	SM1PBS02	Headband	Black/Green	27dB
SmartGroup Student	SM1PES02	Behind-the-Neck	Black/Green	24dB
	SM1PHS02	Helmet Mount	Black/Green	23dB
	SM1PB002+ SRCK617002	Headband	Black/Blue	27dB
SmartGroup - Both Transmit/ Receive	SM1PE002+ SRCK617002	Behind-the-Neck	Black/Blue	24dB
	SM1PH002+ SRCK617002	Helmet Mount	Black/Blue	23dB
	SM1PBS02	Headband	Black/Green	27dB
smartMuff	SM1PES02	Behind-the-Neck	Black/Green	24dB
	SM1PHS02	Helmet Mount	Black/Green	23dB

SM1R: The Perfect Complement to Radios in High-Noise Environments

The SM1R is built specifically to enhance two-way radio communication in high-noise environments. The headset is unique from the rest of Sensear's headset portfolio in that it contains no battery and instead is powered by the radio, making the unit lighter and more comfortable for the user. Similar to the rest of Sensear's portfolio, it pairs Sensear's patented SENS® Technology and a noise-canceling boom mic to allow users in high-noise environments to communicate either via face-to-face or two-way radios while maintaining 360° audible awareness of their surroundings and protecting their hearing.



SM1R-IS: A Radio-Powered **Two-Way Radio Headset** for Hazardous Locations

TIA-4950-A. CSA C22.2 No. 157.92. & UL 913 5th Edition with a hazardous location rating of Class I, II, III, Division 1 & 2, Groups A - G, T5 -25°C to +60°C, T3C -25°C to +60°C



PART NUMBER	DESCRIPTION	NRR
SM1RB001	Two-Way Radio Headband Headset	27dB
SM1RE001	Two-Way Radio Behind-the-Neck Headset	24dB
SM1RH001	Two-Way Radio Helmet Mount Headset	23dB
SM1RISB1	Hazardous Location Two-Way Radio Headband Headset	27dB
SM1RISE1	Hazardous Location Two-Way Radio Behind-the-Neck Headset	24dB
SM1RISH1	Hazardous Location Two-Way Radio Helmet Mount Headset	23dB

KEY FEATURES	
Speech Enhancement	Face-to-Face Communication
Situational Awareness	360°
Volume Limiter	82 dB(A)
Two-Way Radio	Radio Cable with PTT
Intrinsic Safety	UL, CSA, TIA
Voice transmission	Noise Cancelling Boom Mic, VOX-Capable



Smart Battery-Powered Communication Headsets | smartMuff

smartMuff: Hearing Protection, Communication, and Safety Headset

The smartMuff serves three purposes: hearing protection up to 27dB NRR, enhanced speech communication, and 360° situational alertness. With the smartMuff, users will protect their ears and hear their peers. This headset has several applications, including recreation (ATVs, helicopter rides, gun ranges, etc.), lawn service/maintenance (listen to FM/AM radio), and workshops (metal/woodworking).



PART NUMBER	DESCRIPTION	NRR
SM1PBS02	Face-to-Face Communication Headband Headset	27dB
SM1PES02	Face-to-Face Communication Behind-the-Neck Headset	24dB
SM1PHS02	Face-to-Face Communication Helmet Mount Headset	23dB

KEY FEATURES	
Speech Enhancement	Face-to-Face Communication
Situational Awareness	360°
Volume Limiter	82 dB(A)
Short-Range	Up to 8 Programmable FM Channels, up to 150 ft
Voice transmission	Face-to-Face via SENS® Mics





SM1P: A Versatile Solution for Safe Communication in Noisy Workplaces

The SM1P elevates Sensear's portfolio of smart headsets by providing features and benefits to improve safety, reliability, and efficiency. This industrial headset offers a robust design adhering to higher noise reduction standards of up to 27dB NRR. Its Bluetooth® module allows users to connect to cell phones, tablets, and laptops to promote effective communication without leaving the work environment. The headset uses Sensear's SENS® Technology to enhance speech and suppress noise, while the noise-canceling boom mic filters out background noises so that only speech is transmitted through the microphone. The cable connection at the ear cup allows you to use it as a wired headset along with Bluetooth® and short-range.



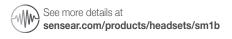
SM1B: A Battery-Powered Two-Way Radio Headset

The SM1B provides industry-leading two-way radio headsets to some of the world's leading industrial companies. Users can have a clear two-way radio communication even in 120 dB(A) noise. This two-way radio headset has built-in hearing protection and noise suppression technology so users are still aware of their surroundings.



PART NUMBER	DESCRIPTION	NRR
SM1PB002	Bluetooth®, Two-Way Radio, and Short-Range Headband Headset	27dB
SM1PE002	Bluetooth®, Two-Way Radio, and Short-Range Behind-the-Neck Headset	24dB
SM1PH002	Bluetooth®, Two-Way Radio, and Short-Range Helmet Mount Headset	23dB
SM1BB002	Battery-Powered Two-Way Radio Headband Headset	27dB
SM1BE002	Battery-Powered Two-Way Radio Behind-the-Neck Headset	24dB
SM1BH002	Battery-Powered Two-Way Radio Helmet Mount Headset	23dB

KEY FEATURES	
Speech Enhancement	Face-to-Face Communication
Situational Awareness	360°
Volume Limiter	82 dB(A)
Two-Way Radio	Bluetooth® or Radio Cable with PTT
Bluetooth®	Bluetooth® 3.0, 49 feet
Short-Range	Up to 8 Programmable FM Channels, up to 150 ft
Voice transmission	Noise Cancelling Boom Mic, VOX-Capable





SM1P-IS: A Versatile Solution for Safe Communication in Hazardous Locations

The SM1P-IS enables high noise two-way radio, Bluetooth®, short-range, and face-to-face communication in explosive environments. Users of the SM1P-IS benefit from clear communication using its wired or wireless capabilities as well as face-to-face communication while still protecting their hearing and remaining aware of the surrounding work environment. It's the perfect solution for your hazardous environments such as explosive chemicals and fuels as well as combustible powders. The SM1P-IS is the next-generation hazardous location headset. Customer focus in hazardous environments is at the forefront of this robust headset design to enhance safety and communications for improved efficiency in high-noise and hazardous workplace environments.



PART NUMBER	DESCRIPTION	NRR
SM1PBIS02	Hazardous Location Bluetooth®, Two-Way Radio, and Short-Range Headband Headset	27dB
SM1PEIS02	Hazardous Location Bluetooth®, Two-Way Radio, and Short-Range Behind-the-Neck Headset	24dB
SM1PHIS02	Hazardous Location Bluetooth®, Two-Way Radio, and Short-Range Helmet Mount Headset	23dB

See more details at sensear.com/products/headsets/sm1

KEY FEATURES	
Speech Enhancement	Face-to-Face Communication
Situational Awareness	360°
Volume Limiter	82 dB(A)
Two-Way Radio	Bluetooth® or Radio Cable with PTT
Bluetooth®	Bluetooth® 3.0, 49 feet
Short-Range	Up to 8 Programmable FM Channels, up to 150 ft
Intrinsic Safety	UL, CSA, TIA
Voice transmission	Noise Cancelling Boom Mic, VOX-Capable



SM1P-Ex: Hazardous Location ATEX Headset

The SM1P-Ex enables high noise two-way radio, Bluetooth®, headset-to-headset communication, and face-to-face communication in explosive environments that require ATEX and IECEx certification. Users of the SM1P-Ex benefit from clear communication using its wired or wireless capabilities as well as face-to-face communication while still protecting their hearing and remaining aware of the surrounding work environment. It's the perfect solution for your hazardous environments such as explosive chemicals and fuels as well as combustible powders.



PART NUMBER	DESCRIPTION	NRR
SM1PBEX02	Hazardous Location (ATEX) Bluetooth®, Two-Way Radio, and Short-Range Headband Headset	27dB
SM1PEEX02	Hazardous Location (ATEX) Bluetooth®, Two-Way Radio, and Short-Range Behind-the-Neck Headset	24dB
SM1PHEX02	Hazardous Location (ATEX) Bluetooth®, Two-Way Radio, and Short-Range Helmet Mount Headset	23dB

KEY FEATURES	
Speech Enhancement	Face-to-Face Communication
Situational Awareness	360°
Volume Limiter	82 dB(A)
Two-Way Radio	Bluetooth® or Radio Cable with PTT
Bluetooth®	Bluetooth® 3.0, 49 feet
Short-Range	Up to 8 Programmable FM Channels, up to 150 ft
Intrinsic Safety	ATEX, IECEx
Voice transmission	Noise Cancelling Boom Mic, VOX-Capable





SM1P-ISDP: Hazardous Location Dual Protection Headset for Communication in Extreme Noise Environments

Dual protection is often a requirement in many critical working areas where exposures may exceed 95 dB(A), Sensear has integrated our SENS® communication capabilities into an Intrinsically Safe Dual Protection headset (ISDP) so users can effectively communicate without removing their hearing protection in these extremely high-noise hazardous conditions. Based on the existing SM1P-IS headset, and incorporating our unique dual protection feature, the SM1P-ISDP fulfills the marketplace need for a high-performance hazardous location headset for extreme noise environments.



SM1P-ExDP: Hazardous Location **Dual Protection (ATEX) Headset** for Communication in Extreme **Noise Environments**

Based on the existing SM1P-Ex headset and incorporating our unique dual protection feature, the SM1P-ExDP headset fills the marketplace need for a high-performing hazardous location headset for extreme noise environments that require ATEX and IECEx certifications.



PART NUMBER	DESCRIPTION	NRR
SM1PBISDP02	Extreme Noise Bluetooth®, Two-Way Radio, and Short-Range Headband Headset	36dB
SM1PEISDP02	Extreme Noise Bluetooth®, Two-Way Radio, and Short-Range Behind-the-Neck Headset	36dB
SM1PHISDP02	Extreme Noise Bluetooth®, Two-Way Radio, and Short-Range Helmet Mount Headset	36dB
SM1PBEXDP02	Extreme Noise (ATEX) Bluetooth®, Two-Way Radio, and Short-Range Headband Headset	36dB
SM1PEEXDP02	Extreme Noise (ATEX) Bluetooth®, Two-Way Radio, and Short-Range Behind-the-Neck Headset	36dB
SM1PHEXDP02	Extreme Noise (ATEX) Bluetooth®, Two-Way Radio, and Short-Range Helmet Mount Headset	36dB

KEY FEATURES	
Speech Enhancement	Face-to-Face Communication
Situational Awareness	360°
Volume Limiter	82 dB(A)
Two-Way Radio	Bluetooth® or Radio Cable with PTT
Bluetooth®	Bluetooth® 3.0, 49 feet
Short-Range	Up to 8 Programmable FM Channels, up to 150 ft
Intrinsic Safety	UL, CSA, TIA, ATEX, IECEx
Voice transmission	Noise Cancelling Boom Mic, VOX-Capable



sensear.com/products/headsets/sm1p-isdp or sensear.com/products/headsets/sm1p-exdp

Smart Tours & Training Communication Headsets | SmartGroup

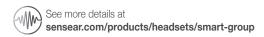
SmartGroup: Industrial Tours and Training Headsets

Sensear's SmartGroup products are an industry-leading solution for companies who conduct facility, factory, and plant tours or training sessions in noisy environments. Sensear's patented SENS® Technology enhances speech and suppresses background noise so users can communicate face-to-face safely and effectively in noisy environments. SmartGroup is a completely customizable build-your-own solution to meet your needs. Select the number of Leader headsets and the number of Student headsets for your needs. It's also highly recommended to purchase a programming tablet for further customization capabilities.



PART NUMBER	DESCRIPTION	NRR
SM1PBS02	SmartGroup Listen-Only Student Headband Headset	27dB
SM1PES02	SmartGroup Listen-Only Student Behind-the-Neck Headset	24dB
SM1PHS02	SmartGroup Listen-Only Student Helmet Mount Headset	23dB
SM1PBT02	SmartGroup Transmit-Only Leader Headband Headset	27dB
SM1PET02	SmartGroup Transmit-Only Leader Behind-the-Neck Headset	24dB
SM1PHT02	SmartGroup Transmit-Only Leader Helmet Mount Headset	23dB
SM1PB002+ SRCK617002	SmartGroup Transmit & Receive Leader Headband Headset with External PTT	27dB
SM1PE002+ SRCK617002	SmartGroup Transmit & Receive Leader Behind-the-Neck Headset with External PTT	24dB
SM1PH002+ SRCK617002	SmartGroup Transmit & Receive Leader Helmet Mount Headset with External PTT	23dB
SM1PB002	SmartGroup Transmit & Receive Student Headband Headset	27dB
SM1PE002	SmartGroup Transmit & Receive Student Behind-the-Neck Headset	24dB
SM1PH002	SmartGroup Transmit & Receive Student Helmet Mount Headset	23dB

KEY FEATURES	
Speech Enhancement	Face-to-Face Communication
Situational Awareness	360°
Volume Limiter	82 dB(A)
Short-Range	Up to 8 Programmable FM Channels, up to 150 ft
Voice transmission	Noise Cancelling Boom Mic, VOX-Capable





Cables to connect your Sensear product to your two-way radio or other communication devices.

Sensear's headsets and earplugs can be connected to Motorola, Kenwood, Icom, Hytera, Harris, Tait, Sepura, Vertex, EF Johnson, and most other radio brands. Cables are sold separately from headsets and earplugs.

Because everyone has different needs based on their two-way radio brand and model, we have developed radio cable compatibility charts which are on our website (see link below). If you are unable to find the cable for your two-way radio or other communication device, don't worry, additional cables are available upon request.

Cables







smartPlug™ Accessories



Headset Accessories

