

# SM1P-ExDP SERIES

The Versatile Solution for Intrinsically Safe Communication in Extremely Noisy Workplaces

The SM1P-ExDP Smart Headset provides essential features and benefits to improve safety, reliability, and efficiency. The SM1P-ExDP offers a total high noise communication solution for Extreme Noise Environments requiring ATEX and IECEx intrinsic safety certifications. Dual hearing protection (both earplugs and earmuffs) are often required where noise exposure may exceed 95 dB(A). These headsets use Sensear's SENS® Technology to enhance speech and suppress noise for face-to-face communication and 360° situational awareness, while the noise-canceling boom mic filters out background noise so that clear 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, or unplug the cable and use it as a completely wireless headset via Bluetooth® and Short-Range.



360°  
Situational  
Awareness



Electronic  
Volume Limiter



Cellular  
Bluetooth®



Protects Hearing



Short-Range  
Communication



Two-Way  
Radios



Intrinsic Safety



Face-to-Face  
Communication



Speech Enhancement  
Noise Suppression

## FEATURES AND BENEFITS

- Clear two-way radio communication in extreme high-noise environments
- Bluetooth® cellular connection for conversation and audio streaming
- Limit 'in-ear' exposure to 82 dB(A)
- Hearing Protection up to 36dB NRR / 38dB SNR / 33dB, Class 5 SLC80
- Compatible with leading two-way radios via removable wired connection or Bluetooth®
- Improved Short-Range (SR) with VOX capabilities and additional channel banks
- Upgraded battery life (up to 24 hours) for use in multiple shifts
- SENS® Technology - remain aware of surrounding noises and hazards
- Enhances speech while suppressing background noise to a safe level
- Face-to-face communication in high noise
- Noise-canceling boom microphone
- Intrinsically safe SM1P-Ex series ATEX & IECEx approved for Hazardous Locations. Certified to: II 2G Ex ib IIC T4 Gb (-20°C ≤ Ta ≤ +40°C); II 2D Ex ib IIIC T155°C Db (-20°C ≤ Ta ≤ +40°C); I M2 Ex ib I Mb (-20°C ≤ Ta ≤ +60°C)
- Intrinsically safe SM1P-Ex series UL & CSA approved for Hazardous Locations. Certified to: Class I Division 1 Groups A-D, T4 (-20°C ≤ Ta ≤ +40°C); Class 1 Zone 1 AEx ib IIC T4 Gb (-20°C ≤ Ta ≤ +40°C); Class II Zone 21 AEx ib IIIC T155°C Db (-20°C ≤ Ta ≤ +40°C)



Experience SENS® Technology!



Sensear   
Hear Speech Stay Protected

# SM1P-ExDP Styles



Type: <b>Headband (HB)</b>	
Wired/BT/SR Part #	SM1PBEXDP02



Type: <b>Behind-the-Neck (BTN)</b>	
Wired/BT/SR Part #	SM1PEEXDP02



Type: <b>Helmet Mount (HM)</b>	
Wired/BT/SR Part #	SM1PHEXDP02

## Technical Specifications

### General

Mounting Type	Headband (HB)	Behind-the-Neck	Helmet Mount (HM)
Sensear Part Number	SM1PBEXDP02	SM1PEEXDP02	SM1PHEXDP02
Weight	495 g (17.46 oz.)	428 g (15.09 oz.)	480 g (16.93 oz.)
IP Rating	IP54		
Operating temperature	-20°C to +60°C (-4°F to 140°F)		

### Hearing Protection

Volume limiter	82 dB(A) [programmable] – only applicable when headset is powered on
----------------	--

Region	Australia / NZ	USA / Canada	Europe
Standard	AS/NZS 1270	*ANSI S3.19	EN352-1/EN352-3
Result	SLC80	NRR	SNR
HB	32dB, Class 5	36dB	37dB
BTN	33dB, Class 5	36dB	38dB
HM	30dB, Class 5	36dB	38dB

\*Calculated per OSHA's recommendation for estimating Dual Protection attenuation = higher rated protector + 5dB

### Power

Battery type	Rechargeable - Lithium-ion
Battery capacity	2250 mAh
Operating time	24 hours (wired connection) / 18 hours (wireless with Bluetooth*/Short-Range activated)
Charge time	4 hours
Charging temperature	0°C to +40°C (32°F to 104°F)

### Communication

Face-to-Face SENS® Mode	SENS® voice pickup limit of 95 dB(A)		
Voice Transmission	Noise-canceling boom microphone VOX capable when used in Short-Range mode for headset-to-headset communication VOX capable when connected to VOX enabled two-way radio* *Must be verified and tested for compatibility with the two-way radio		
Wired Connectivity	6-pin Hirose connector		
Short-Range	Half-duplex communications	Up to 8 programmable FM channels	Up to 50 meters (164 feet)
Bluetooth®	Bluetooth® 3.0: HFP (8KHz and 16KHz), HSP, A2DP		15 meters (49 feet)

### Short-Range

Region	EIRP (uW)	Standards	FM Freq. range (MHz)
1	8.02	AS/NZS 4268	88.1 – 107.9
2	0.048	EN301357-1	88.1 – 107.9
3	0.012	FCC-15.239 & IC	88.1 – 97.0

FM Radio enable/disable option: Allows user to listen to commercial FM radio stations

## Intrinsic Safety for Hazardous Locations

SM1P-ExDP series:

ATEX & IECEx:

II 2G Ex ib IIC T4 Gb (-20°C ≤ Ta ≤ +40°C)  
II 2D Ex ib IIIC T155°C Db (-20°C ≤ Ta ≤ +40°C)  
I M2 Ex ib I Mb (-20°C ≤ Ta ≤ +60°C)

UL 913 8th, UL 60079-0, UL 60079-11, CSA 60079-0, CSA 60079-11:

Class I Division 1 Groups A-D, T4 (-20°C ≤ Ta ≤ +40°C);  
Class 1 Zone 1 AEx ib IIC T4 Gb (-20°C ≤ Ta ≤ +40°C)  
Class II Zone 21 AEx ib IIIC T155°C Db (-20°C ≤ Ta ≤ +40°C)

## Noise is Everywhere



OIL & GAS



PETROCHEMICAL/ENERGY



MINING

Your Local Dealer

Sensear Pty Ltd  
4 Hehir Street  
Belmont, WA, 6104  
Australia  
Toll-Free: 1-300-859-120

Sensear Inc.  
150 South Washington St  
Suite C  
Carpentersville, IL 60110  
United States  
Toll-Free: 1-888-973-6732

**Sensear**   
Hear Speech Stay Protected  
**SENS**  
TECHNOLOGY by Sensear

www.sensear.com