

# SM1P02-ExDP SERIES

The Versatile Solution for Intrinsically Safe Communication in Extremely Noisy Workplaces

Be the productivity and safety leader in your industry with Sensear's SM1P02-ExDP Smart Headset, the total high noise communication solution for Intrinsically Safe Environments requiring ATEX and IECEx certification. Dual hearing protection (both earplugs and muffs) are often required where noise exposure may exceed 95 dB.

The SM1P ExDP provides essential features and benefits to improve safety, reliability, and efficiency. Sensear's new industrial headset platform combined with Dual Hearing Protection for Extreme Noise and Intrinsic Safety for Hazardous Environments offers a robust design and some of the highest noise reduction standards. These headsets use Sensear's SENS® technology to enhance speech and suppress noise for face-to-face communication and situational awareness, while the noise-canceling boom mic filters out background noise so that clear speech is transmitted through the microphone and the upgraded Bluetooth® module allows for the streaming of audio. The new cable connection at 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



Face to Face  
Communication



Protects Hearing



Short Range  
Communication



Two-way  
Radios



Speech Enhancement  
Noise Suppression



Intrinsic Safety

## 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)
- Up to 31dB (NRR); NRR 29-31 dB / SNR 37-38 dB / SLC80 30-33 dB, Class 5
- Compatible with leading two-way radios via removable wired connection or Bluetooth
- Improved Short Range 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 mic.
- Intrinsically safe SM1P-Ex series ATEX & IECEx approved. 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 M1 Ex ia I Ma (-20°C ≤ Ta ≤ +60°C) and Class I Division 1 Groups A-D, T4 (-20°C ≤ Ta ≤ +40°C); Class 1 Zone 1 AEx ib T4 Gb (-20°C ≤ Ta ≤ +40°C); Class I Zone 21 AEx ib IIIC T155°C Db (-20°C ≤ Ta ≤ +40°C)
- Intrinsically safe SM1P-Ex series UL & CSA approved. Certified to: Class I, II, III, Division 1 & 2 Groups A-G, T4 (-20°C ≤ Ta ≤ +40°C); T3C (-20°C ≤ Ta ≤ +50°C)



**Sensear**   
Hear Speech Stay Protected

## SM1P02-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 (BTN)	Helmet Mount (HM)
Sensear Part Number	SM1PBEXDP02	SM1PEEXDP02	SM1PHEXDP02
Weight	495 g (17.46 oz.)	428 g (15.09 oz.)	480g (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
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Ear Piece Style	Foam	Silicone	Class	Foam	Silicone	Foam	Silicone
Region	Australia / NZ			USA / Canada		Europe	
Standard	AS/NZS 1270			ANSI S3.19		EN352-1/EN352-3	
Result	SLC80			NRR		SNR	
HB	32dB	30dB	Class 5	30dB	29dB	37dB	37dB
BTN	33dB	29dB	Class 5	31dB	27dB	38dB	36dB
HM	30dB	28dB	Class 5	29dB	26dB	38dB	39dB

### 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

SENS® 360° Situational Awareness	95 dBA		
Voice Transmission	Boom microphone – noise canceling VOX capable when used in ShortRange 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)

\*dependent on radio type and compatible SRCK radio cable

### 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 RSS210	88.1 – 97.0

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

## Intrinsic Safety

SM1P02-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 M1 Ex ia I Ma (-20°C ≤ Ta ≤ +60°C)  
Class I Division 1 Groups A-D, T4 (-20°C ≤ Ta ≤ +40°C);  
Class 1 Zone 1 AEx ib T4 Gb (-20°C ≤ Ta ≤ +40°C)  
Class I Zone 21 AEx ib IIIC T155°C Db (-20°C ≤ Ta ≤ +40°C)  
**UL 913 8th, UL 60079-0, UL 60079-11, CSA 60079-0, CSA 60079-11:**

Class I, II, III, Division 1 & 2, Groups A - G,  
T4 (-20°C ≤ Ta ≤ +40°C); T3C (-20°C ≤ Ta ≤ +50°C)

## Noise is Everywhere



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### PETROCHEMICAL/ENERGY



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