

# SM1P-ISDP SERIES

The Versatile Solution for Intrinsically Safe Communication in Extremely Noisy Workplaces

The SM1P-ISDP Smart Headset provides essential features and benefits to improve safety, reliability, and efficiency. The SM1P-ISDP offers a total high noise communication solution for Extreme Noise Environments requiring UL, CSA, and TIA 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®



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)
- Hearing Protection of 36dB NRR / 42dB 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
- FM Radio enable/disable: Allows users to listen to commercial FM Radio stations
- Upgraded battery life (up to 24 hours) for use in multiple shifts
- Available in Headband, Behind-the-Neck, and Helmet Mount style
- SENS® Technology - remain aware of surrounding noises and hazards
- Enhances speech while suppressing background noise to a safe level
- Noise-canceling boom microphone
- Intrinsically safe SM1P-ISDP series certified to: 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, T4 -20°C to +40°C, T3C -20°C to +50°C



Experience SENS® Technology!



Sensear   
Hear Speech Stay Protected

# SM1P02 ISDP Styles



Type: <b>Headband (HB)</b>	
Wired/BT/SR Part #	SM1PBIISDP02



Type: <b>Behind-the-Neck (BTN)</b>	
Wired/BT/SR Part #	SM1PEISDP02



Type: <b>Helmet Mount (HM)</b>	
Wired/BT/SR Part #	SM1PHISDP02

## Technical Specifications

### General

Mounting Type	Headband (HB)	Behind-the-Neck (BTN)	Helmet Mount (HM)
Sensear Part Number	SM1PBIISDP02	SM1PEISDP02	SM1PHISDP02
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 / New Zealand	USA / Canada	Europe
Standard	AS/NZS 1270	*ANSI S3.19	**EN352-1/EN352-3
Result	SLC80	NRR	SNR
HB	32dB, Class 5	36dB	42dB
BTN	33dB, Class 5	36dB	42dB
HM	30dB, Class 5	36dB	42dB

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

\*\*Calculated per the European Directive on "Noise" for estimating Dual Protection = 33\*log((0.4\*Plug)+(0.1\*Muff))

### Power

Battery type	Rechargeable - lithium-ion
Battery capacity	2250 mAh
Operating time	24 hours (wired connection) / 18 hours (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	Two-way radio audio through headset without headset battery**	Audio revert to radio when headset Hirose connector disconnected**
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 for Hazardous Locations

SM1P-ISDP series:

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, T4 -20°C to +40°C, T3C -20°C to +50°C

## Noise is Everywhere



FOOD PROCESSING / MANUFACTURING



OIL & GAS / PETROCHEMICAL



ENERGY / RAW MATERIALS

Your Local Dealer

**Sensear Pty Ltd**  
199 Great Eastern Highway,  
Belmont, WA, 6104  
Australia  
+61 8 9277 7332

**Sensear Inc.**  
150 South Washington St  
Suite C  
Carpentersville, IL 60110  
United States  
Toll Free: 1-888-9SENSEAR  
1-888-973-6732

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

www.sensear.com