

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®



Two-Way
Radios



Protects
Hearing



Short-Range



Face-to-Face
Communication



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 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!





Type: **Headband (HB)**
Wired/BT/SR Part # SM1PBEXDP02



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



Type: **Helmet Mount (HM)**
Wired/BT/SR Part # SM1PHEXDP02

Technical Specifications

General

| Headset 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 | | |
| 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

| | |
|----------------------|---|
| | Intrinsically Safe |
| 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 | 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

Your Local Dealer

Magnum Electronics, Inc.
927 Horsepond Rd,
Dover, DE 19901
302-734-9250

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

Intrinsic Safety for Hazardous Locations

SM1P-ExDP series:

Ex 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

Sensear
||| SAFETY THAT SPEAKS VOLUMES

SENS
TECHNOLOGY by Sensear

www.sensear.com