SM1P-Ex SERIES

The Versatile Solution for Safe Communication in Hazardous and Noisy Workplaces

Be the productivity and safety leader in your industry with our unique and innovative SENS® Technology providing hearing protection, 360° situational awareness and total communication (face-to-face, two-way radio, Bluetooth and Short Range Headset-to-headset). The SM1P-Ex provides essential features and benefits to improve safety, reliability, and efficiency in high noise and hazardous work environments. Sensear's new industrial headset platform offers a robust design adhering to higher noise reduction standards. These headsets use Sensear's SENS® technology to enhance speech and suppress noise while the noise-canceling boom mic filters out background noise so that only speech is transmitted through the microphone. SM1P-Ex's upgraded Bluetooth® module also allows for the streaming of audio to the headset.

The SM1P-Ex series is Intrinsically Safe certified to ATEX and IECEx standards for use in Hazardous Environments

- 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 high-noise environments
- Compatible with leading two way radios via wired connection or Bluetooth
- Bluetooth cellular connection for conversation and audio streaming (HFP, HSP and A2DP profiles)
- Improved Short Range with VOX capabilities and additional channel banks for headset-to-headset communications
- FM Radio enable/disable: Ability to listen to commercial FM Radio stations
- Upgraded battery life (up to 24 hours) for use in multiple shifts
- SENS® Technology - remain aware of surrounding noises and hazards
- 360° situational awareness
- Enhances speech while suppressing background noise to a safe level
- Face-to-face communication in high noise
- Limit 'in-ear' exposure to 82 dB(A)
- Noise-canceling boom mic
- Available in headband, behind-the-neck, and helmet style
- NRR 23-27 dB / SNR 30-33 dB / SLC80 26-31 dB, Class 5.
- 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)

Non-cabled versions available.
Bluetooth/SR connectivity only,
- See PNs on reverse side

Sensear
Hear Speech Stay Protected

Styles

Type: Headband (HB)	
Wired/BT/SR Part #	BT/SR only Part #
SM1PBEX01	SM1PBWEX01

Type: Behind-the-Neck (BTN)	
Wired/BT/SR Part #	BT/SR only Part #
SM1PEEX01	SM1PEWEX01

Type: Helmet Mount (HM)	
Wired/BT/SR Part #	BT/SR only Part #
SM1PHEX01	SM1PHWEX01

Technical Specifications

* Wired, Bluetooth & Short Range
* Bluetooth & Short Range only (No cable)

General

Headset Type	Headband (HB)	Behind-the-neck (BTN)	Helmet Mount (HM)
Sensear Part Number	SM1PBEX01 SM1PBWEX01 (BT/SR only)	SM1PEEX01 SM1PEWEX01 (BT/SR only)	SM1PHEX01 SM1PHWEX01 (BT/SR only)
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	31 dB, Class 5	27 dB	33 dB
BTN	27 dB, Class 5	24 dB	30 dB
HM	26 dB, Class 5	23 dB	31 dB

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

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

SM1P-Ex 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

OIL & GAS

PETROCHEMICAL/ENERGY

MINING

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