



**FLOWTRONIX (FT)**



# **EAR PROTECTION**



Founded in 1990, **FLOWTRONIX (FT)** is a leading Manufacturer, Stockiest, Distributor and Supplier of the complete range of high quality Personal Protective Equipment (PPE) and safety solutions. We provide a diverse product portfolio for consolidated safety purchasing to our strategic end user clients, distribute products and services through our largest integrated network of resellers, retail stores and distribution centers.



## Personal Protective Equipment (PPE)

FT offers a full range of safety solutions for your professional needs. We offer high quality personal protective equipments which guarantee protection against wide range of risks associated with high degree of comfort for our users. We supply our products to all industrial sectors that need protective equipment for their manpower against all kinds of occupational hazards. FT work towards by implementing a total "Head-to-Toe" safety concept to the HSE standards by providing authentic, environment friendly and quality Personal Protective Equipment.

## **FT** SAFETY FIRST AT EVERY WORKPLACE

Serious injury or death in the workplace changes lives forever - for the families, friends, co-workers, employer and communities. That is why it is very important to apply Safety First philosophy in every workplace. Effective health and safety in your workplace can help keeping your employees happy and productive, at the same time reduces the human and business costs of injuries.

EAR PROTECTION



## AVES® EAR PROTECTION

FUNCTIONAL. COMFORTABLE. DURABLE

Sounds that are sufficiently loud to damage sensitive inner ear structures can produce hearing loss that is not reversible by any presently available medical or surgical treatment. Hearing impairment associated with noise exposure can occur at any age, and is often characterized by difficulty in understanding speech and the potentially troublesome symptom, tinnitus (ringing in the ear).

If you must SHOUT to be understood over background noise when one arm's length away from a person - the background noise is HAZARDOUS.

If you work in an excessively noisy environment (above 90 dB), you should wear protectors. You should also wear them when you are using power tools, noisy yard equipment, or firearms. Hearing protection devices decrease the intensity of sound that reaches the eardrum.



## AVES EAR PROTECTION FEATURES



Always Value Everybody's Safety

AVES Ear Protection gives noise reduction and manage sound through technology advanced features with combination of performance and comfort. We developed a range of earmuffs and earplugs with different product features and attenuation levels targeted to the demands of different users of different environments.

Hearing protection is vital in ensuring that employees have a safe work environment. AVES is committed to provide top quality, durable and effective hearing protection equipments to our customers. Our range of ear plugs and ear muffs are developed to meet wide range of applications.

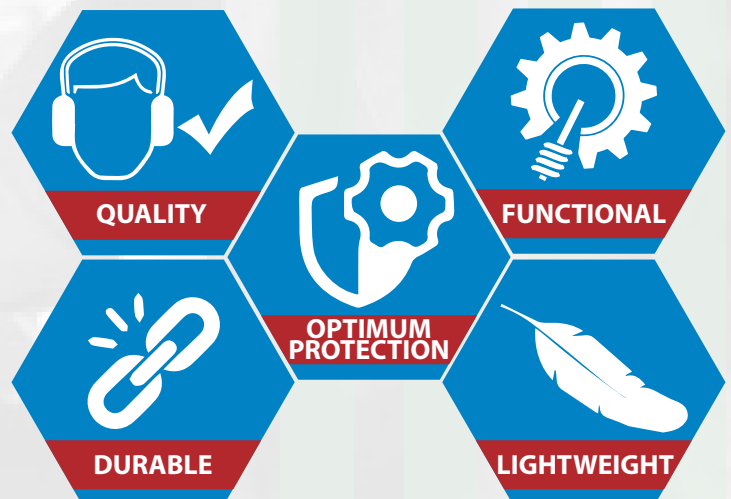
## AVES® EAR PROTECTION

FUNTIONAL. COMFORTABLE. DURABLE



### WHY CHOOSE AVES EAR PROTECTION PRODUCTS?

- Easy to Use
- Comfortable
- Functional
- Non-irritating
- Optimum Protection
- Lightweight
- Outstanding seal
- Wide range of applications
- Conforms to international standards





## REUSABLE SAFETY EAR PLUGS

### AV-411 and AV-412:

#### Features

- Contoured 4-flange and ultra-soft polymer design. Delivers all-day comfort and superior attenuation.
- Built-in, firm handle allows user to direct the angle of insertion, adapting to each ear canal.
- Advanced non-allergenic polymer material, non-irritating, resistant to ear wax and body oils
- Washable and reuse for weeks with no loss of comfort and lower life-cycle costs
- Universal size, self-contours to fit virtually any shape of ear canal, accommodates diverse workforce to simplify inventory control.

#### Packaging

- AV-411, corded ear plugs packaged in individual polybags, 100 pairs per dispenser box
- AV-412, corded ear plugs, key-chain and plastic case, 50 pairs per box

#### Standard

- ANSI S12.6, ANSI S3.19, ANSI S3.19-1974 and CE EN-352-2
- 34 dB SNR (CE)
- 27 dB NRR (ANSI)

### AV-416:

#### Features

- A fully metal detectable corded reusable ear plug. Designed to be used over and over again, with maintained comfort and effectiveness.
- Injected mix of Styrene-Ethylene-Butylene-Styrene (SEBS) with tiny metal flakes (embedded)

#### Packaging

- AV-416, corded ear plugs packaged in individual polybags, 100 pairs per dispenser box

#### Standard

- ANSI S12.6, ANSI S3.19, and CE EN-352-2
- 34 dB SNR (CE)
- 27 dB NRR (ANSI)

### AV-411 Ear Plugs | Art. No: 2474AV57



### AV-412 Ear Plugs | Art. No: 2474AV58



### AV-416 Ear Plugs | Art. No: 2474AV489



**Best for Food Handling Industries!  
Fully Metal Detectable**

EAR PROTECTION

**REUSABLE SAFETY EAR PLUGS**

**AV-511 and AV-512:**

**Features**

- Contoured 4-flange design puts more material in contact with ear canal and provides all-day comfort.
- Built-in, firm handle allows user to direct the angle of insertion, adapting to each ear canal.
- Advanced non-allergenic polymer material is non-irritating, resistant to ear wax and body oils
- Safety Orange color makes inspection easy and ensures ear plugs are being worn.

**Packaging**

- AV-511, corded ear plugs packaged in individual polybags, 100 pairs per dispenser box
- AV-512, corded ear plugs packaged in individual polybags, 50 pairs per dispenser box

**Standard**

- ANSI S12.6, ANSI S3.19, and CE EN-352-2
- 32 dB SNR (CE)
- 27 dB NRR (ANSI)

**AV-311 and AV-312:**

**Features**

- Has soft and flexible 3-angle ear plug that is comfortable for all day wear with easy insertion and removal.
- A cost competitive solution in high performance reusable ear plugs.
- Built-in, firm handle allows user to direct the angle of insertion, adapting to each ear canal.

**Packaging**

- AV-311, corded ear plugs packaged in individual polybags, 100 pairs per dispenser box
- AV-312, corded ear plugs packaged in individual polybags, 50 pairs per dispenser box

**Standard**

- ANSI S12.6, ANSI S3.19, and CE EN-352-2
- 30 dB SNR (CE)
- 25 dB NRR (ANSI)

**AV-511 Ear Plugs | Art. No: 2474AV496**



**AV-512 Ear Plugs | Art. No: 2474AV497**



**AV-311 Ear Plugs | Art. No: 2474AV510**



**AV-312 Ear Plugs | Art. No: 2474AV441**



EAR PROTECTION



## DISPOSABLE SAFETY EAR PLUGS

**AV-101 and AV-153 Ear Plugs with vibrant orange color offer easier insertion and higher rating!**

**AV-101 (Un-corded)**  
Art. No: 2474AV65

**AV-153 (Corded)**  
Art. No: 2474AV66

**AV-500 Foam Ear Plugs Dispenser**  
Art No: 2474AV67



### AV-101 and AV-153:

#### Features

- Easy to insert correctly due to their tapered shape and slow expansion rate.
- The smooth surface and low pressure foam provide the most comfortable fitting foam ear plugs on the market.

#### Packaging

- 200 pairs (AV-101) per dispenser box, 5 boxes per case
- 100 pairs (AV-153) per dispenser box, 10 boxes per carton
- AV-500 Earplug Dispenser makes sure earplugs are always available when and where they are needed. Holds 500 pairs of un-corded ear plugs and can be refilled with **AV-151 Bulk (Art No: 2474AV124)**

#### Standard

- ANSI S12.6, ANSI S3.19, and CE EN352-2
- AV-101 - 31 NRR (ANSI) and 36 SNR (CE)
- AV-153 - 32 NRR (ANSI) and 37 SNR (CE)

## ATTENUATION PROPERTIES OF AV-153 EAR PLUGS

### • ANSI S12.6

Frequency, Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Value, dB	37.3	40.8	43.1	41.6	40.7	45.6	46.2	48.4	48.3	32
Std. Deviation	5.9	5.3	5.0	4.8	2.8	4.2	4.2	4.4	4.5	

### • CE EN-352-2

Frequency, Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
dB Mean Attenuation	34.4	38.1	37.9	39.6	37.7	37.3	48.4	45.9	36	34	33	37
Std. Deviation	3.3	4.9	6.3	6.5	4.2	3.5	5.1	4.5				
Protection, dB	31.1	33.2	31.6	33.1	33.5	33.8	43.3	41.4				

EAR PROTECTION

**SAFETY EAR PLUGS**



EAR PROTECTION



## SAFETY EAR MUFF

High Performance economy ear muff, 28 dB NRR. With AVES AV-HB25 you get all the features and performance without paying the price that normally is associated with a high performance product.

### AV-HB35:

#### Features

- Soft and pliable SuperSeal™ ear cushions
- Fully dielectric construction
- Low headband force for great comfort.
- Multi-position use with Support Strap (AV-SS25)
- Self-aligning suspension, and easy adjustment
- Color: Red ear cup other components black
- Weight: 258 g (9.2 oz.)
- Dimensions: 205 mm long (at rest) x 80mm wide x 235mm high (fully extended)

AV-HB35 | Art. No: 2536AV410



#### Standard

- ANSI S12.6, ANSI S3.19, and CE EN-352-1
- 30 dB SNR (CE)
- 28 dB NRR (ANSI)

EAR PROTECTION



Storage micro-fiber bag (AV-SGB30)



Optional Support Strap (AV-SS25)



### ATTENUATION PROPERTIES OF AV-HB35 EAR MUFFS

#### • ANSI S3.19

Frequency, Hz	125	250	500	1000	2000	3150	4000	6300	8000	H	M	L	NRR
dB Mean Attenuation	17.6	24.1	32.6	39.9	37.6	37.0	37.9	40.0	40.2	36	31	23	28
Std. Deviation	2.0	2.0	2.4	3.2	2.6	1.9	2.6	2.2	2.4				

#### • CE EN-352-1

Frequency, Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
dB Mean Attenuation	14.6	14.2	22.3	32.2	37.4	34.1	33.7	36.8	32	28	18	30
Std. Deviation	4.2	3.7	3.5	3.2	4.3	3.1	3.2	2.7				
Protection, dB	10.4	10.5	18.8	29.0	33.1	31.0	30.5	34.1				



## SAFETY EAR MUFFS

Most buyers and users of ear muffs are looking for a product that offers great looks, good comfort and attenuation at a reasonable price. AV-HB25 offers High Performance economy ear muffs conforming to international standards.

### AV-HB25:

#### Features

- Soft and pliable SuperSeal™ ear cushions.
- Fully dielectric construction
- Low headband force and light-weight, 6.8 oz.
- Outstanding seal & comfort
- Ease of adjustments with flexible slide clips.
- Dielectric construction
- Color: Blue ear cup other components black
- Weight: 206g (7.3oz)
- Dimension: 195mm (w) x 230mm (h) fully extended

**AV-HB25 | Art. No: 2536AV60**

#### Standard

- ANSI S12.6, ANSI S3.19, and CE EN-352-1
- 28 dB SNR (CE)
- 25 dB NRR (ANSI)



EAR PROTECTION



Storage micro-fiber bag (AV-SGB30)



Optional Support Strap (AV-SS25)

### ATTENUATION PROPERTIES OF AV-HB25 EAR MUFFS

#### • ANSI S3.19

Frequency, Hz	125	250	500	1000	2000	3150	4000	6300	8000	H	M	L	NRR
dB Mean Attenuation	13.1	19.8	29.3	37.6	36.7	33.3	36.3	36.6	35.6	35	28	19	25
Std. Deviation	2.0	1.7	1.8	1.8	2.0	2.2	2.9	4.0	2.1				

#### • CE EN352-1

Frequency, Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
dB Mean Attenuation	13.6	13.4	18.3	26.8	35.5	33.2	32.8	33.2	30	25	17	28
Std. Deviation	3.2	3.4	2.4	2.8	3.4	4.0	2.6	3.4				
Protection, dB	10.4	10.0	15.9	24.0	32.1	29.2	30.2	29.8				



## SAFETY EAR MUFF FEATURES

**AV-HB35 and AV-HB25 Smart fold-out position — ready to don when re-entering a high-noise area.**



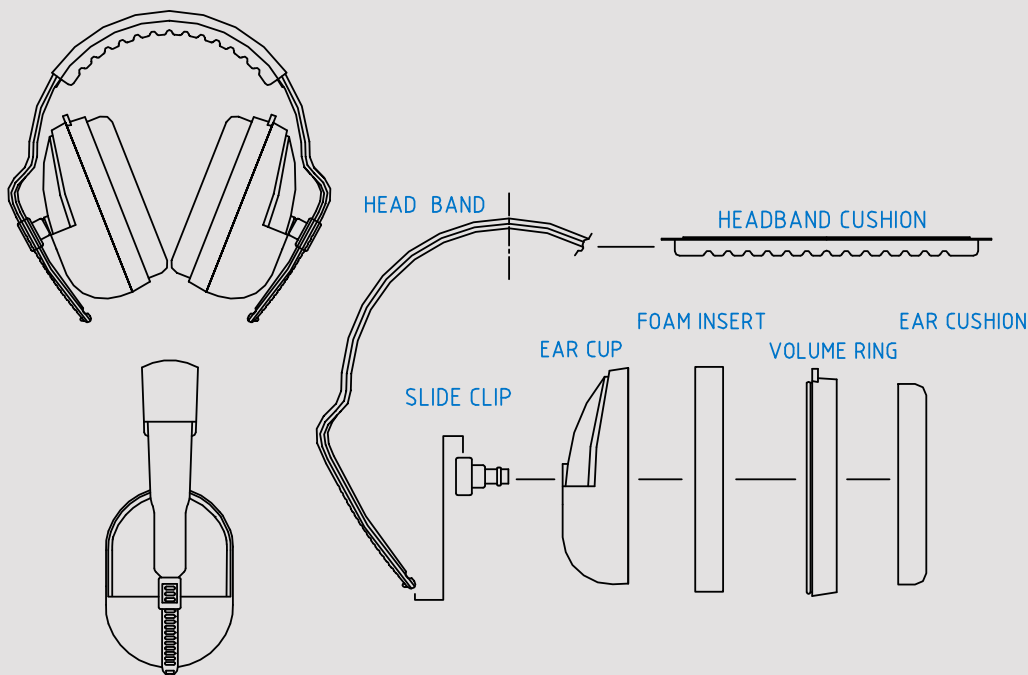
**Smart foldout storage position**



**Normal muff storage position**

EAR PROTECTION

This “Smart” foldout worker-friendly feature allows both AV-HB35 and AV-HB25 ear muffs to sit comfortably on your shoulders when not in use, ready to don when your workers re-enter a high noise area. Workers are more productive because they can keep them handy for intermittent use.



### Smart solutions Incredible value

AV-HB35 and AV-HB25 are constructed as high performance ear muffs, providing hearing protection in the most challenging environments without sacrificing comfort.

# SAFETY EAR MUFF

Ideal choice for night time work, construction, airports and public works environments! AV-HB640 has Hi-Viz color where an increase in visibility is required and maximizes speech communication.

**AV-HB640:**

**Features**

- Ultra-Lightweight Ear Muffs - weighs only 8.2 oz. or (232g)
- 20% Lower Headband Pressure provides highest level of all-day comfort
- Maximizes speech communication in moderate noise environments
- Extra wide ear cushions and a soft padded head cushion for added comfort
- Low force, fork-type stainless steel headband offers the lowest and most consistent pressure on the wearer's head at all temperatures
- Color: Hi-viz yellow ear cup, Black volume ring, other components black
- Weight: 216 g (7.6 oz.)
- Dimensions: 140mm long (at rest) x 96mm wide x 214mm high (fully extended)

**AV-HB640 | Art. No: 2536AV411**



EAR PROTECTION

**Standard**

- ANSI S12.6, ANSI S3.19, and CE EN-352-1
- 32 dB SNR (CE)
- 27 dB NRR (ANSI)



## ATTENUATION PROPERTIES OF AV-HB35 EAR MUFFS

**• ANSI S3.19**

Frequency, Hz	125	250	500	1000	2000	3150	4000	6000	8000	H	M	L	NRR
dB Mean Attenuation	17.8	25.0	34.0	35.8	31.9	35.9	35.2	38.3	39.2	32	29	23	27
Std. Deviation	2.4	2.9	2.6	2.9	1.6	3.0	2.4	3.5	4.1				

**• CE EN352-1**

Frequency, Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
dB Mean Attenuation	18.1	15.7	24.4	34.8	41.1	33.0	38.4	37.4	33	30	21	32
Std. Deviation	3.1	2.8	2.3	3.3	2.8	2.2	3.0	3.4				
Protection, dB	15.0	12.9	22.1	31.5	38.3	30.8	35.4	34.0				



## SAFETY EAR MUFF

AV-HB-650 earmuff is our newest high performance earmuff with a Noise Reduction Rating of 29 dB. This earmuff has been designed to provide excellent full spectrum attenuation. AV-HB-650 uses a fork style headband for even distribution of the pressure & improved balance for extra deep ear cups.

### AV-HB650:

#### Features

- Superb full spectrum and low frequency attenuation
- Extra wide ear cushions for highest comfort
- Fork-type headband provides low and consistent pressure on the wearer's head
- Soft padded head cushion provide the highest level of all-day comfort
- Ultimate performance and comfort
- Headband : Stainless Steel
- Cushion : Wide Ear Cushions
- Weight : 10.1 oz./272g

AV-HB650 | Art. No: 2536AV482



EAR PROTECTION

#### Standard

- ANSI S3.19-1974 and CE EN-352
- 34dB SNR (CE)
- 29 dB NRR (ANSI)



Storage micro-fiber bag (AV-SGB30)

### ATTENUATION PROPERTIES OF ULTRASONIC™ HB-650 EAR MUFFS

#### • ANSI S3.19

Frequency, Hz	125	250	500	1000	2000	3150	4000	6300	8000	H	M	L	NRR
dB Mean Attenuation	22.1	27.9	34.9	35.8	37.3	41.4	42.3	41.6	41.2	37	32	27	29
Std. Deviation	2.9	2.8	3.4	2.0	2.5	2.7	2.8	3.1	3.7				

#### • CE EN352-1

Frequency, Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
dB Mean Attenuation	19.3	19.3	26.1	34.0	39.6	35.1	43.5	38.9	33	30	21	32
Std. Deviation	3.8	2.7	2.8	2.6	3.2	3.0	2.9	5.2				
Protection, dB	15.5	16.6	23.3	31.4	36.4	32.1	40.6	33.7				

# SAFETY EAR MUFFS

AV-HB5000B muff is one of only a few ear muffs that have achieved a 29 dB NRR rating at an independent and certified laboratory in accordance with ANSI S3.19-1974.


**AV-HB5000B:**

**Features**

- Has the lowest headband force and lowest weight of 9.7 oz in its class
- Pressure equalizing headband provides even fit and seal for a wide variety of facial configurations and sizes
- SuperSeal™ ear cushions provide outstanding seal and comfort
- A dielectric construction for environments with exposure to high voltage situations

**Standard**

- ANSI S12.6 and ANSI S3.19
- 29 dB NRR (ANSI)

**AV-HB5000B | Art. No: 2536AV499** 



Storage micro-fiber bag (AV-SGB30)

EAR PROTECTION



## ATTENUATION PROPERTIES OF SUPERSONIC™ HB-5000 EAR MUFFS

**• ANSI S3-19-1974**

Frequency, Hz	125	250	500	1000	2000	3150	4000	6300	8000	H	M	L	NRR
dB Mean Attenuation	20.3	25.6	37.4	40.2	36.4	36.4	42.8	41.4	40.0	37	34	26	29
Std. Deviation	2.6	2.0	2.6	2.9	2.3	2.6	2.6	2.4	1.7				



## SAFETY CAP MOUNT EAR MUFF

AVES® Cap Mount Ear Mus offers adaptability, functionality and high noise reduction properties. Our AV-HM6093 is our universal option featuring a large volume ear muff with 27 NRR and its most major brand safety caps ranging from 29 mm to 33 mm wide hard hat slot opening.

### AV-HM6093:

#### Features

- Hard hat slot opening is 29 mm to 33 mm
- Lightweight construction weighing 8.5 ounces
- Dielectric Construction, certified by independent testing
- 2 Rest positions: Flip Out muffs for short term break or Flip Up on top of safety cap
- Arm assembly with universal blade mounts to most slotted safety caps
- Color: Black ear cup, Gray volume ring, other components black
- Weight: 242 g (8.5 oz.)
- Dimensions: Each cup is 85mm wide x 58mm deep x 111 high

AV-HM6093 | Art. No: 2536AV413



#### Standard

- ANSI S12.6 and ANSI S3.19
- 27 dB NRR (ANSI)

EAR PROTECTION



Ear Muff



Arm Bracket



Slot Adapter



### ATTENUATION PROPERTIES OF AV-HM6093 EAR MUFF

#### • ANSI S3.19-1974

Frequency, Hz	125	250	500	1000	2000	3150	4000	6300	8000	H	M	L	NRR
dB Mean Attenuation	19.4	24.5	33.7	35.7	34.5	36.0	40.9	39.3	37.9	35	31	24	27
Std. Deviation	3.2	2.3	2.8	3.0	2.3	1.7	2.8	2.5	3.4				

## SAFETY CAP MOUNT EAR MUFF

Hearing Protection and other Safety Equipment are many times incompatible. Head, Face and Hearing protection products can in fact be worn simultaneously with AVES-Elvex Quick Snap System! Cap Mount Ear Muffs are functionally integrated.

**AV-HM2093:**

**Features**

- Hard hat slot opening is 29 mm to 33 mm
- Lightweight construction weighing 8.1 ounces
- Dielectric Construction, certified by independent testing
- 2 Rest positions: Flip Out muffs for short term break or Flip Up on top of safety cap
- Arm assembly with universal blade mounts to most slotted safety caps
- Color: Black ear cup, Grey volume ring, other components black
- Weight: 212 g (7.5 oz.)
- Dimensions: Each cup is 85mm wide x 55mm deep x 120 high

**AV-HM2093 | Art. No: 2536AV55**



EAR PROTECTION

**Standard**

- ANSI S12.6 and ANSI S3.19
- 25 dB NRR (ANSI)



**Ear Muff**



**Arm Bracket**



**Slot Adapter**

### ATTENUATION PROPERTIES OF AV-HM2093 EAR MUFF

**• ANSI S3.19-1974**

Frequency, Hz	125	250	500	1000	2000	3150	4000	6300	8000	H	M	L	NRR
dB Mean Attenuation	18.5	21.2	32.1	35.3	36.6	38.1	37.9	39.1	37.8	35	29	22	25
Std. Deviation	3.3	2.7	3.0	2.7	3.3	2.7	2.9	4.0	2.9				



## PROTECT YOUR HEARING AT WORK!

The surest method of preventing occupational deafness is to reduce noise at the source by engineering methods. However, in certain workplace conditions, there is very little or nothing one can do to reduce noise at the source. In such workplaces, workers wear hearing protectors to reduce the amount of noise reaching the ears.

People should wear a hearing protector if the noise or sound level at the workplace exceeds 85 decibels (A-weighted) or dB(A). Hearing protectors reduce the noise exposure level and the risk of hearing loss.

### How can hearing protection be used effectively?

#### ✓ Do:

- Make sure the protectors give enough protection - aim at least to get below 85 dB at the ear;
- Target the use of protectors to the noisy tasks and jobs in a working day;
- Select protectors which are suitable for the working environment, consider how comfortable and hygienic they are;
- Think about how they will be worn with other protective equipment (example hard hats, dust masks and eye protection);
- Provide a range of protectors so that employees can choose ones which suit them.

#### ✗ Dont:

- Provide protectors which cut out too much noise - this can cause isolation, or lead to an unwillingness to wear them;
- Make the use of hearing protectors compulsory where the law doesn't require it;
- Have a 'blanket' approach to hearing protection - better to target its use and only encourage people to wear it when they need to.

### OSHA's Permissible Noise Exposure

90 dB	8.0 hours
92 dB	6.0 hours
95 dB	4.0 hours
97 dB	3.0 hours
100 dB	2.0 hours
102 dB	1.5 hours
105 dB	1.0 hours
110 dB	30 minutes
115 dB	15 minutes

EAR PROTECTION

### SIGNS OF INDUSTRIAL DEAFNESS AND NOISE INDUCED HEARING LOSS



Tinnitus or ringing in the ears



Muffled hearing



Loss of high-pitched sounds



Acoustic trauma which causes irreversible damage to the eardrum







# SENSEAR PROTECTION FEATURES

Sensear's patented SENS™ technology simultaneously enhances speech, and suppresses background noise so that users can verbally communicate, protect their hearing, and still maintain 360-degree awareness of their surroundings in noisy environments such as oil & gas, mining, construction, heavy manufacturing and other industrial work places.



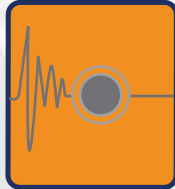
SENS® Technology brings low noise hearing experiences into high noise environments by enabling users to communicate effectively, remain aware of their surrounding while protecting their hearing. In High Noise, You Need More Than Just Noise Cancellation You Need SENS®

## SENSEAR PROTECTION COMMUNICATION SOLUTIONS FOR HIGH NOISE ENVIRONMENTS



**Speech Enhancement**

- Isolates & enhances speech
- Real-time speech separation
- Face-to-face, Two-way Radio, Bluetooth Cell Phone



**Noise Suppression**

- Suppresses noise to safe level (82dB)
- Enables speech even with background noise
- Works in intermittent, impact, & continuous noise environments



**Situational Awareness**

- Enables 360-degree situational awareness
- Retains original sound characteristics
- Reduces risk of accidents



**SENS™ Technology**

- Total Communication
- Situational Awareness
- Hearing Protection
- Hear speech and stay protected in high noise environments



## SMART MUFFS FOR HIGH NOISE ENVIRONMENTS

Sensear provides industry-leading two way radio headsets to some of the world's leading industrial companies. Users can have a clear two way radio communication even in 120dB noise. The two way radio headset even has built in hearing protection and noise suppression technology so users are still aware of their surroundings. Sensear is a next generation two way radio headset.

### SM1:

#### Features

- Effective above 82dB(A)
- Protects against impact, tonal and continuous noise
- SENS™ technology built-in
- Two-way interface
- Full spatial awareness - hear the direction of speech and other sounds
- Stereo sound quality
- MP3 interface
- Volume memory
- Replacement hygiene kit
- Helmet mount available
- Boom microphone available
- High-Visibility safety colours
- Industrial ruggedised
- 12+ hours of continuous talk time
- Weight: 440g

**SM1 | Art. No: 2578SE135**



Speaker output  
Limited to  
**82dB(A)** in  
the ear\*  
\*when tested according to EN  
552-4 below H, M and L  
listening levels

EAR PROTECTION

#### Standard

- CLASS 5 tested to AS/NZS 1270:2002

#### Smart Communication Features:

SENS™ technology is a revolutionary technology invented by Sensear. It perfects the combination of speech enhancement and noise suppression technologies with a complex set of unique algorithms enabling what has previously been impossible, the ability to produce high quality speech audibility and optimum hearing protection in environments with noise levels above 85dB(A).



Helmet Mount (HM)



Headband (HB)

#### SENS® Technology



## SMART MUFFS FOR HIGH NOISE ENVIRONMENTS

SM1x (Bluetooth®) earmuffs have been designed for comfort, quality and endurance in the field, enabling clear, safe communication above 85dB(A) without the need to remove hearing protection. It has feature SENS™ (Speech Enhancing Noise Suppression) technology, a radical innovation unique to Sensear products. "Clear, Safe Communication in High Noise Environments"

### SM1x: Features

- Effective above 85dB(A)
- Protects against impact, tonal and continuous noise
- SENS™ technology built-in
- Bluetooth® pairing to mobile/cell phone
- Two-way interface and MP3 interface
- Full spatial awareness - hear the direction of speech and other sounds
- Stereo sound quality
- Volume memory
- Replacement hygiene kit
- Helmet mount available
- Boom microphone available
- High-Visibility safety colours
- Industrial ruggedised
- 12+ hours of continuous talk time
- Weight: 440g

### Standard

- CLASS 5 tested to AS/NZS 1270:2002

**SM1x | Art. No: 2578SE136**



Speaker output  
Limited to  
**82dB(A)** in  
the ear\*  
\*when tested according to EN  
352-4 below H, M and L  
of hearing levels

EAR PROTECTION

### Smart Communication Features:

SENS™ technology is a revolutionary technology invented by Sensear. It perfects the combination of speech enhancement and noise suppression technologies with a complex set of unique algorithms enabling what has previously been impossible, the ability to produce high quality speech audibility and optimum hearing protection in environments with noise levels above 85dB(A).

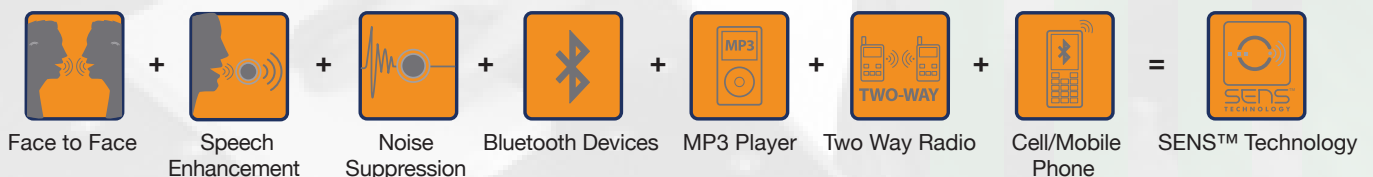


Helmet Mount (HM)



Headband (HB)

### SENS® Technology





## SMART MUFFS FOR HIGH NOISE ENVIRONMENTS

The SM1xSR is one of the smartest ear muffs in the world. It incorporates a comprehensive range of features into one hearing protection and communications device. Features include the ability to communicate ear muff to muff within 50 yards/metres and a built in FM radio as well as all the benefits built into the SENS™ technology.

### SM1XSR:

#### Features

- Allows communication above 85 dB (A)
- Protects against all forms of noise – Impact, Intermittent, Continuous
- Safely hear your surroundings whilst also hearing speech
- Binaural Capability – Hear the direction of Speech and other sounds
- Face to Face communication
- Two-Way Radio Interface
- Wireless Bluetooth® connection to cellular phones
- Communicate short range distances Ear Muff to Ear Muff, up to 50 meters
- MP3 Interface
- High Visibility Color
- Durable adjustable headband
- Extra soft ear cushions for long wearing comfort
- Simple buttons for tactile adjustment without having to look or remove earmuffs
- 12+ hours continuous talk time
- 12mth Warranty

**SM1xSR | Art. No: 2578SE137**



Speaker output  
**Limited to 82dB(A) in the ear\***  
\*When tested according to EN 552-4 below H, M and L criterion levels

EAR PROTECTION

#### Standard

- CLASS 5 tested to AS/NZS 1270:2002



Helmet Mount (HM)



Behind the Neck (BTN)

### SENS® Technology



## SMART MUFFS FOR HIGH NOISE ENVIRONMENTS

Sensear intrinsically safe headset enable high noise two way radio, bluetooth and headset to headset communication in explosive environments that require CSA, ATEX IECEx and UL certification. Users of the SM1xSR(IS) headset benefit from clear communication using its wired or wireless capabilities while still protecting their hearing and remaining aware of the surrounding work environment.

### SM1xSR(IS):

#### Features

- Allows communication above 85 dB (A)
- Protects against all forms of noise – Impact, Intermittent, Continuous
- Safely hear your surroundings whilst also hearing speech
- Binaural Capability – Hear the direction of Speech and other sounds
- Speaker limited to 82 dB (A) in ear
- Face to Face communication
- Two-Way Radio Interface
- Wireless Bluetooth® connection to cellular phones
- Two-Way Radio Interface
- MP3 Interface
- High Visibility Color
- Durable adjustable headband
- Communicate short range distances Ear Muff to Ear Muff, up to 50 meters
- Extra soft ear cushions for long wearing comfort
- Simple buttons for tactile adjustment without having to look or remove earmuffs
- 12+ hours continuous talk time
- 12mth Warranty

#### Standard

- CLASS 5 tested to AS/NZS 1270:2002

**SM1xSR (IS) | Art. No: 2578SE147**



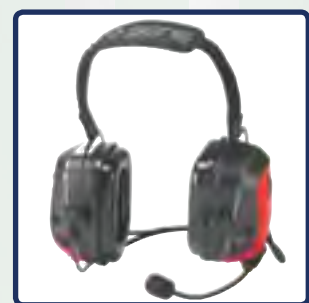
Speaker output  
Limited to  
**82dB(A)** in  
the ear\*

\*when tested according to EN 350-4 below H, M and L criterion levels.

EAR PROTECTION



Helmet Mount (HM)



Behind the Neck (BTN)

### SENS® Technology





## SMARTPLUGS FOR HIGH NOISE ENVIRONMENTS

SmartPlug is a digital hearing protection ear-plug solution for use in some of the worlds largest industries, where high noise and extreme environments are part of the everyday challenges to communications and hearing protection. SmartPlug has in-ear microphone allowing users to clearly pick up speech & transmit through existing communication systems by cable or Bluetooth connections.

### SmartPlug:

#### Features

- SENS™ Technology
- Disposable foam or silicone ear tip options
- 82 dB(A) limited in-ear and in-Ear voice pick up
- Rechargeable battery with 15 hours battery life lowering the total cost of ownership compared to AA batteries
- Compatible for Bluetooth® and Short Range (SR) team communication
- Rugged design with belt clip for ease of wear essential for high noise industrial environments where equipment is subjected to rough handling
- Dual inline PTT allowing for easy triggering of communication functions
- USB for programming allows simple configuration of the headset by a dealer
- Ideal use with respirators & breathing protection devices

SmartPlug | Art. No: 2578SE148



EAR PROTECTION

#### Processing Unit

- Bluetooth®
- Short Range (SR) team communication

- Two -Way Radio
- Software Programmable
- Rechargeable Battery



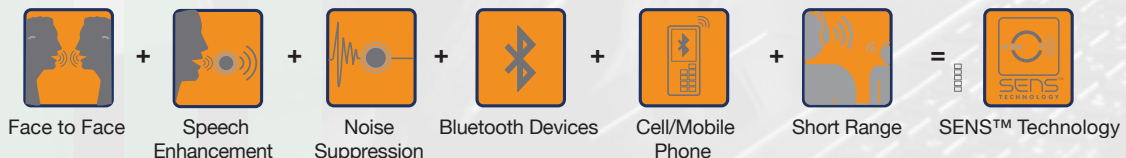
#### Ear Plugs

- Disposable foam or reusable silicone ear tip options
- Comfortable design
- 82dB(A) limited in-ear
- SENS™ awareness
- In-Ear voice pick-up

#### Inline PTT

- Fast communication access

### SENS® Technology





# SMART GROUP SERIES

Smart Group Series are an industry leading solution for companies who carry out facility, factory and plant tours and training in noisy environments. The tour guide and participants will benefit from the face-to-face and short range (headset-to-headset) communication capabilities as well as protecting their hearing at the same time.

## Smart Group Series:

### Features

- Talk to one another face-to-face in noisy environments (up to 95dB)
- Two-way radio and cell phone communication (up to 105dB)
- Up to 25dB NRR (noise reduction rating)
- Remain aware of surrounding noises and hazards
- Protects against all types of noise
- Rechargeable battery (lithium-ion, 7-hour charge time from totally flat to full)
- Durable and lightweight design
- Connects to existing two-way radio system
- Maximum noise exposure of 82dB
- Teacher and Student Smart Muffs are available in:
  - Headband (HB)
  - Behind the Neck (BTN)
  - Helmet Mount (HM)

### Available in:

- Smart Group 5 (1 Teacher / 5 Student)
- Smart Group 10 (1 Teacher / 10 Student).

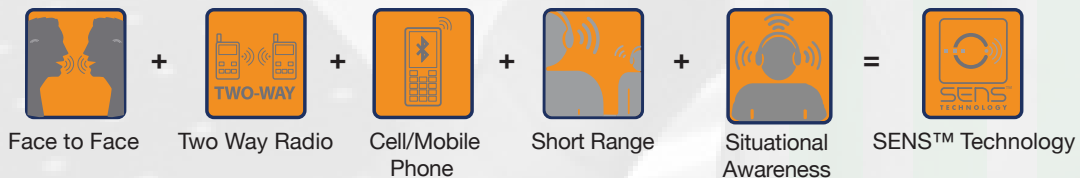
## Smart Group Series



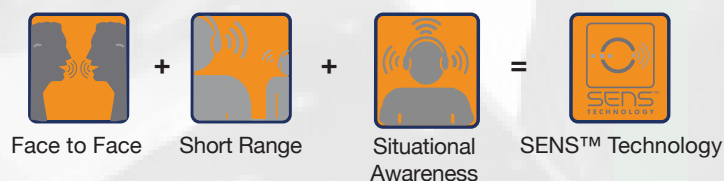
Smart Group is available in:  
1x Teacher Muff  
and 5 or 10 Student Muffs

EAR PROTECTION

### SENS® Technology - Teacher Muff



### SENS® Technology - Student Muff



**AVES**<sup>®</sup>

**ELVEX**<sup>®</sup>

Sensear   
*Hear Speech Stay Protected*



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