Technical Datasheet E-A-R™ E-A-RCaps™ Earplugs



Product Description

The E-A-RCaps™ semi-aural earplugs are designed to seal the entrance point of the ear canal to help reduce exposure to hazardous levels of noise and loud sound. These products are designed to be worn under-the-chin and behind-the-neck mode.

Key Features

- Round pod plugs that seal the entrance of ear canal thus making them more wearer acceptable
- No need to handle the plug tip making them more hygienically acceptable
- Low transmission noise through the band
- Easily stored around the neck when not in use
- Optimum attenuation for many application
- Easy to wash and clean
- Pods can be easily replaced

Applications

The E-A-RCaps™ semi-aural earplugs are ideal for moderate noise exposure levels, and are suited for a wide range of industrial workplace, particularly for intermittent noise exposure. Examples of typical applications include:

- Automotive
- Chemical & pharmaceutical manufacture
- Construction
- Inspection work
- Light engineering
- Metal processing
- Textile manufacture
- Woodworking

Standard & Approval

The E-A-RCaps™ semi-aural earplugs are tested and CE approved against the European Standard EN352-2:1993. These products meet the Basic Safety Requirements as laid out in Annex II of the European Community Directive 89/686/EEC and have been examined at the design stage by INSPEC International Limited, 56 Leslie Hough Way, Salford, Greater Manchester M6 6AJ, UK (Notified Body number 0194).

Materials

The following materials are used in the manufacture of this product.

	Component	Material			
	Band	Polycarbonate			
	Ear tip	Polyurethane foam			



Attenuation values

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	21.0	20.2	19.8	19.1	23.2	33.4	41.0	40.7
sf (dB)	4.1	4.4	4.2	4.3	3.7	4.5	2.9	5.4
APVf (dB)	16.9	15.8	15.5	14.8	19.5	29.0	38.1	35.2

SNR = 23dB H = 27dB M = 19dB L = 17dB

Key

APVf(dB) = Mf - sf(dB)

Mf = Mean attenuation value

sf = Standard deviation

APVf = Assumed Protection Value

H = High-frequency attenuation value (predicted noise level reduction for noise with L(C)-L(A) = -2dB)

M = Medium-frequency attenuation value (predicted noise level reduction for noise with L(C)-L(A) = +2dB)

L = Low-frequency attenuation value (predicted noise level reduction for noise with L(C) – L(A) = +10dB)

 SNR = Single Number Rating (the value that is subtracted from the measured C-weighted sound pressure level, $\mathsf{L}(\mathsf{C})$ in order to estimate the effective A-weighted sound pressure level inside the ear).



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