

EU Type Examination Certificate

This is to certify that:

Sordin AB
Rostugnsvägen 17
Vikmanshyttan
776 70
Sweden

Holds Certificate Number:

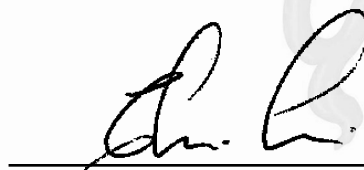
CE 708869

In respect of:

**Hearing protectors to EN 352-1:2002 -
Headband mounted ear-muffs
Models: XLS, EXC and HPE Headband.**

on the basis that BSI carried out the relevant Type Examination procedures under the requirements with the Regulation (EU) 2016/425 of the European Parliament and Council relating to Personal Protective Equipment Regulation (PPE) Annex V (Module B) and meets the relevant health and safety requirements specified in Annex II

For and on behalf of BSI, a Notified
Body for the above Regulation
(Notified Body Number 0086):



Chris Lewis - Certification Director, Product Certification

First Issued: 2019-07-22

Latest Issue: 2019-07-22

Effective Date: 2019-07-22

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EU Type Examination Certificate

No. CE 708869

Product Specification

Product Type: Hearing protectors – Headband mounted ear-muffs.

Models: EXC-1 Headband
EXC-1B Headband
HPE-1 Headband
HPE-1B Headband
XLS-1 Headband

Technical Specifications: Harmonized European Standard: EN 352-1:2002.

Product Descriptions: The three model ranges of industrial market orientated headband mounted ear-muffs are fitted with foam ear cushions. The only difference between the base model and the B version in 2 of the ranges is the type of ear cushion.

EN 352 classifications: Over-the-head ear-muff
(all models) The models were in the Small, Medium and Large size ranges.

Product Assessments

The product assessments were based on EN 352-1:2002, hearing protectors – ear-muffs.

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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
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EXC-1 model:

Attenuation values

Test Frequency f (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation Mf (dB)	11.2	19.1	25.7	29.2	32.0	36.8	39.0
Standard Deviation Sf (dB)	3.2	2.2	2.7	3.1	2.3	2.7	3.7
Assumed Protection Value APVf (dB) (APVf = Mf-Sf)	8.0	16.9	23.0	26.1	29.7	34.1	35.3

High Medium and Low Frequency Attenuation Values and Single Number Rating

High Frequency Attenuation Value (H)	31 dB
Medium Frequency Attenuation Value (M)	24 dB
Low Frequency Attenuation Value (L)	16 dB
Single Number Rating (SNR)	27 dB

EXC-1B model:

Attenuation values

Test Frequency f (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation Mf (dB)	19.0	21.2	27.6	32.7	32.9	37.3	38.1
Standard Deviation Sf (dB)	2.7	1.5	2.2	2.2	3.0	2.9	3.0
Assumed Protection Value APVf (dB) (APVf = Mf-Sf)	16.3	19.7	25.4	30.5	29.9	34.4	35.1

High Medium and Low Frequency Attenuation Values and Single Number Rating

High Frequency Attenuation Value (H)	32 dB
Medium Frequency Attenuation Value (M)	28 dB
Low Frequency Attenuation Value (L)	22 dB
Single Number Rating (SNR)	30 dB

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HPE-1 model:

Attenuation values

Test Frequency f (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation Mf (dB)	20.6	23.7	29.7	35.0	33.1	39.0	41.7
Standard Deviation Sf (dB)	3.4	1.9	3.0	3.3	3.3	3.0	4.0
Assumed Protection Value APVf (dB) (APVf = Mf-Sf)	17.2	21.8	26.7	31.7	29.8	36.0	37.7

High Medium and Low Frequency Attenuation Values and Single Number Rating

High Frequency Attenuation Value (H)	32 dB
Medium Frequency Attenuation Value (M)	29 dB
Low Frequency Attenuation Value (L)	23 dB
Single Number Rating (SNR)	32 dB

HPE-1B model:

Attenuation values

Test Frequency f (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation Mf (dB)	21.6	25.1	30.4	34.0	34.8	37.3	34.7
Standard Deviation Sf (dB)	2.6	2.1	2.6	3.0	3.0	2.4	3.8
Assumed Protection Value APVf (dB) (APVf = Mf-Sf)	19.0	23.0	27.8	31.0	31.8	34.9	30.9

High Medium and Low Frequency Attenuation Values and Single Number Rating

High Frequency Attenuation Value (H)	32 dB
Medium Frequency Attenuation Value (M)	30 dB
Low Frequency Attenuation Value (L)	25 dB
Single Number Rating (SNR)	32 dB

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XLS-1 model:

Attenuation values

Test Frequency f (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation Mf (dB)	11.6	17.2	21.7	30.4	29.2	35.4	34.4
Standard Deviation Sf (dB)	3.5	2.7	3.1	3.4	4.2	4.1	4.6
Assumed Protection Value APVf (dB) (APVf = Mf-Sf)	8.1	14.5	18.6	27.0	25.0	31.3	29.8

High, Medium and Low Frequency Attenuation Values and Single Number Rating

High Frequency Attenuation Value (H)	27 dB
Medium Frequency Attenuation Value (M)	22 dB
Low Frequency Attenuation Value (L)	15 dB
Single Number Rating (SNR)	25 dB

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Certificate Administration Details

Technical File References:

Product	Technical File
EXC-1 Headband	EXC-1 Headband Technical File
EXC-1B Headband	EXC-1B Headband Technical File
HPE-1 Headband	HPE-1 Headband Technical File
HPE-1B Headband	HPE-1B Headband Technical File
XLS-1 Headband.	XLS-1 Headband Technical File.

Certificate Amendment Record:

Issue date	Comments	BSI Review No.
July 2019	First issue under PPE Regulation (EU) 2016/425.	0086:19:9749076

Certificate validity

The Certificate holder is responsible for ensuring that the Notified Body is advised of changes to any aspect of the overall process utilised in the manufacture of the product, failure to do so could invalidate the Certificate in respect of product manufactured following the introduction of such changes.

The validity of the Certificate for the products is also dependent on the maintenance of the EU Conformity to Type Based on Quality Assurance of the Production Process, Annex VIII (Module D), as referenced on BSI issued Certificate CE 708855.

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