

# EU Type Examination Certificate

This is to certify that:

MSA Europe GmbH  
Schlüsselstrasse 12  
Rapperswil-Jona  
8645  
Switzerland

Holds Certificate Number:

CE 713098

In respect of:

**Hearing protectors to EN 352-1:2002**  
**Headband mounted ear-muffs**  
**Models: left/RIGHT High, Medium and Low 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 2797):

Previous Notified Body: BSI 0086

First Issued: 2019-07-03

Latest Issue: 2019-09-12

Drs. Dave Hagenaaars, Managing Director

Effective Date: 2019-09-12

Expiry Date: 2024-07-03

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# EU Type Examination Certificate

No. CE 713098

## Product Specification

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

**Models:** left/RIGHT Low Headband  
left/RIGHT Medium Headband  
left/RIGHT High Headband.

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

**Product Descriptions:** The three models of industrial market orientated headband mounted ear-muffs are fitted with foam ear cushions.

**EN 352 classifications:** Over-the-head ear-muff  
(all models) The models are 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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## Attenuation data

### left/RIGHT Low

Test Frequency f (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation Mf (dB)	11.0	13.0	24.9	31.6	27.3	32.0	31.5
Standard Deviation Sf (dB)	2.7	2.6	2.0	2.4	3.5	2.8	3.4
Assumed Protection Value APVf (dB) (APVf = Mf-Sf)	8.3	10.4	22.9	29.2	23.8	29.2	28.1

### 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)	14 dB
Single Number Rating (SNR)	24 dB

### left/RIGHT Medium

Test Frequency f (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation Mf (dB)	13.9	18.1	28.0	34.9	31.6	35.4	37.9
Standard Deviation Sf (dB)	2.4	3.1	2.5	2.8	2.8	1.4	2.5
Assumed Protection Value APVf (dB) (APVf = Mf-Sf)	11.5	15.0	25.5	32.1	28.8	34.0	35.4

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

High Frequency Attenuation Value (H)	32 dB
Medium Frequency Attenuation Value (M)	26 dB
Low Frequency Attenuation Value (L)	17 dB
Single Number Rating (SNR)	28 dB

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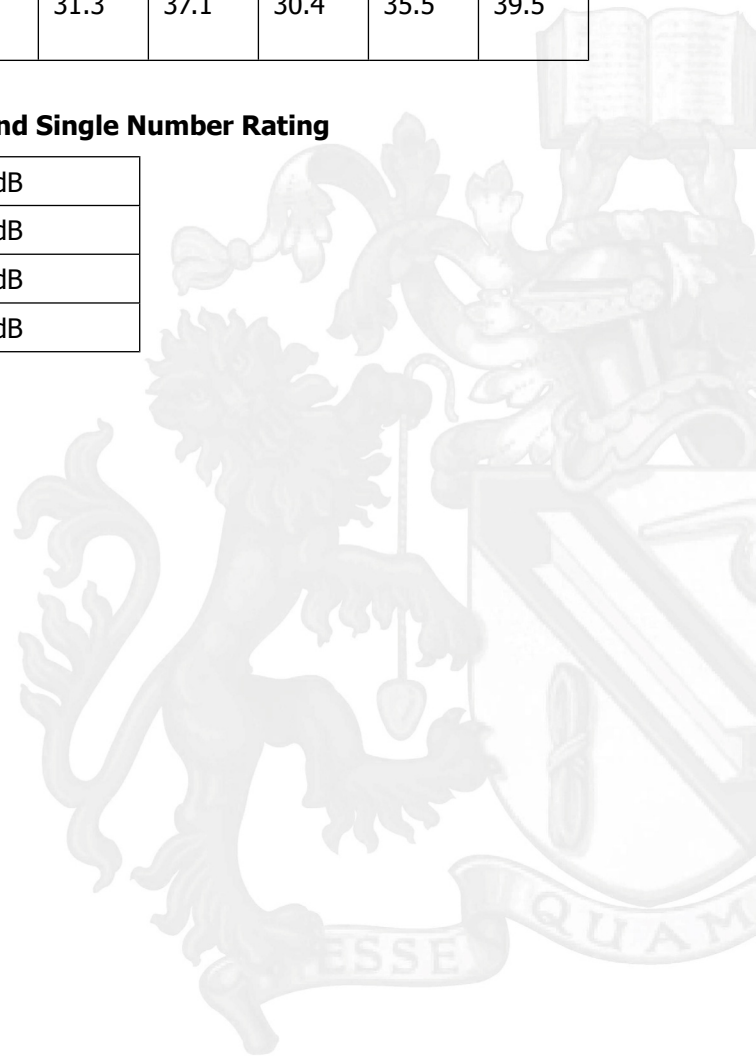
No. CE 713098

## left/RIGHT High

Test Frequency f (Hz)	125	250	500	1000	2000	4000	8000
Mean Attenuation $M_f$ (dB)	18.8	23.6	33.1	39.8	33.6	37.6	42.0
Standard Deviation $S_f$ (dB)	2.5	2.6	1.8	2.7	3.2	2.1	2.5
Assumed Protection Value $APV_f$ (dB) ( $APV_f = M_f - S_f$ )	16.3	21.0	31.3	37.1	30.4	35.5	39.5

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

High Frequency Attenuation Value (H)	33 dB
Medium Frequency Attenuation Value (M)	31 dB
Low Frequency Attenuation Value (L)	23 dB
Single Number Rating (SNR)	33 dB



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## Certificate Administration Details

Product initially Certified as detailed on BSI issued Certificate CE 708878.

## Technical File References:

Product	Technical File
Left/RIGHT Low Headband	Left/RIGHT Low Headband Technical File
Left/RIGHT Medium Headband	Left/RIGHT Medium Headband Technical File
Left/RIGHT High Headband.	Left/RIGHT High Headband Technical File.

## Certificate Amendment Record:

Issue date	Comments	BSI Review No.
July 2019	First issue under PPE Regulation (EU) 2016/425.	0086:19:9789112

## 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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## Location

Sordin AB  
Rostugnsvägen 17  
Vikmanshyttan  
776 70  
Sweden

## Certified Activities

Hearing protectors to EN 352-1:2002  
Headband mounted ear-muffs  
Models: left/RIGHT High, Medium and Low Headband.



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