



PRODUCT INFORMATION

AutroGuard® sound pressure levels for tones according to EN 54-3

This document provides an overview of the sound pressure levels for EN 54-3-approved tones for AutroGuard® multicriteria protector series with sounders, including all variants of the following (indicated with an “S”):

- V-430-S
- V-430-S-VADR
- V-430-S-VADW
- V-530-S-VADW

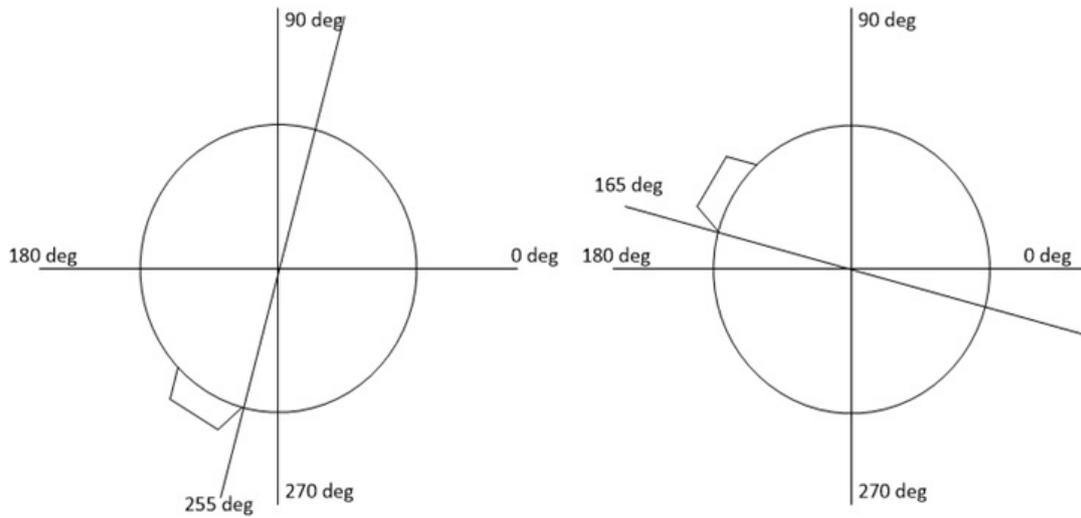
EN 54-3 approved tones

Sound source	Tone type	Frequencies	Temporal pattern	Name/Use	Standard	High vol. max. dB(A)	High vol. min. dB(A)	Low vol. max. dB(A)	Low vol. min. dB(A)
0		915 Hz	Continuous	Continuous 915		91	73	84	66
1		500-1200 Hz	3.5 s sweep, 0.5 s OFF	Dutch slow whoop 500-1200	NEN2575	93	78	83	70
2		730 Hz & 915 Hz	2Hz	Alternating 730 & 915	BS Fire tone	90	73	82	65
3		3650 Hz	Continuous	Continuous 3650		90	70	90	70
5		800 - 970 Hz	7Hz	Whoop 800-970 7Hz	BS Fire tone	91	77	82	70
7		1200 - 500 Hz	1Hz	DIN tone 1200-500	DIN33404-3	90	77	82	70

Other standard tones

Sound source	Tone type	Frequencies	Temporal pattern	Name/Use	Standard
4		800 - 970 Hz	1 Hz	Whoop 800-970 1 Hz	BS Fire tone
6		1830 Hz	Continuous	Continuous 1830	
8		457 Hz	Continuous	Swedish all clear	SS31711
9		457 Hz	0.15 s ON, 0.15 s OFF	Imminent danger 457	SS31711
10		915 Hz	0.15 s ON, 0.15 s OFF	Imminent danger 915	(SS31711)
11		1800 - 3600 Hz	7 Hz	Whoop 1800-3600 7 Hz	
12		2872 & 3600 Hz	1 Hz	Alternating 2872 & 3600	
13		1800 - 3600 Hz	1 Hz	Whoop 1800-3600 1 Hz	
14		800 - 970 Hz	0.67 Hz (1.5 s period)	Whoop 800-970 1.5 s	BS Fire tone
15		3600 - 1800 Hz	1 Hz	DIN tone 3600-1800 Hz	(DIN33404-3)

Measurement angles



Vertical plane

Horizontal plane

Tone 0 - Continuous 915

High volume: 91.04 dB(A) @ 1 m max. / 73.34 dB(A) @ 1 m min.						
Position (degrees)	Horizontal plane dB(A) @ 1 m			Vertical plane dB(A) @ 1 m		
	Vmin	Vmax	Diff	Vmin	Vmax	Diff
15	78.94	80.04	1.1	79.84	81.04	1.2
45	73.34	73.64	0.3	82.34	83.34	1
75	90.24	91.04	0.8	76.94	78.34	1.4
105	86.84	87.24	0.4	77.04	77.44	0.4
135	78.94	79.64	0.7	80.94	81.94	1
165	81.54	82.14	0.6	81.74	82.44	0.7
Low volume: 84 dB(A) @ 1 m max. / 66 dB(A) @ 1 m min.						
Position (degrees)	Horizontal plane dB(A) @ 1 m			Vertical plane dB(A) @ 1 m		
	Vmin	Vmax	Diff	Vmin	Vmax	Diff
15	72.84	72.84	0	80.64	81.34	0.7
45	66.14	66.24	0.1	82.74	83.44	0.7
75	83.54	83.54	0	78.44	79.44	1
105	80.44	80.44	0	77.34	78.14	0.8
135	72.74	72.74	0	81.44	82.24	0.8
165	74.74	74.84	0.1	81.64	82.54	0.9

Tone 1 - Dutch slow whoop 500-1200



High volume: 93 dB(A) @ 1 m max. / 78 dB(A) @ 1 m min.						
Position (degrees)	Horizontal plane dB(A) @ 1 m			Vertical plane dB(A) @ 1 m		
	Vmin	Vmax	Diff	Vmin	Vmax	Diff
15	79.44	80.94	1.5	84.44	86.14	1.7
45	78.04	79.54	1.5	85.04	86.64	1.6
75	91.44	93.04	1.6	80.34	81.54	1.2
105	86.64	88.14	1.5	82.04	83.74	1.7
135	81.04	82.54	1.5	84.74	86.34	1.6
165	81.64	83.24	1.6	85.94	87.54	1.6
Low volume: 83 dB(A) @ 1 m max. / 70 dB(A) @ 1 m min.						
Position (degrees)	Horizontal plane dB(A) @ 1 m			Vertical plane dB(A) @ 1 m		
	Vmin	Vmax	Diff	Vmin	Vmax	Diff
15	71.24	71.34	0.1	75.64	75.74	0.1
45	69.74	70.14	0.4	76.24	76.24	0
75	83.14	83.14	0	70.94	71.74	0.8
105	78.14	78.44	0.3	73.74	73.44	-0.3
135	72.64	72.64	0	75.64	75.64	0
165	73.34	73.34	0	76.94	77.04	0.1

Tone 2 - Alternating 730 & 915

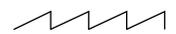


High volume: 90 dB(A) @ 1 m max. / 73 dB(A) @ 1 m min.						
Position (degrees)	Horizontal plane dB(A) @ 1 m			Vertical plane dB(A) @ 1 m		
	Vmin	Vmax	Diff	Vmin	Vmax	Diff
15	78.44	78.94	0.5	80.14	80.74	0.6
45	72.74	72.74	0	82.24	82.74	0.5
75	89.34	89.84	0.5	75.54	75.64	0.1
105	85.64	86.14	0.5	77.64	78.04	0.4
135	78.24	78.84	0.6	80.74	81.24	0.5
165	80.44	80.94	0.5	81.74	82.24	0.5
Low volume: 82 dB(A) @ 1 m max. / 64 dB(A) @ 1 m min.						
Position (degrees)	Horizontal plane dB(A) @ 1 m			Vertical plane dB(A) @ 1 m		
	Vmin	Vmax	Diff	Vmin	Vmax	Diff
15	70.94	70.94	0	73.54	73.54	0
45	64.64	64.64	0	75.14	74.94	-0.2
75	82.44	82.44	0	68.94	68.94	0
105	78.94	79.04	0.1	71.24	71.04	-0.2
135	72.34	72.24	-0.1	73.94	73.94	0
165	73.14	73.14	0	74.44	74.44	0

Tone 3 - Continuous 3650

High volume: 90 dB(A) @ 1 m max. / 70 dB(A) @ 1 m min.						
Position (degrees)	Horizontal plane dB(A) @ 1 m			Vertical plane dB(A) @ 1 m		
	Vmin	Vmax	Diff	Vmin	Vmax	Diff
15	79.74	80.14	0.4	81.84	81.74	-0.1
45	77.04	77.14	0.1	82.44	82.34	-0.1
75	89.74	90.04	0.3	69.94	70.54	0.6
105	86.44	86.64	0.2	81.04	81.14	0.1
135	76.94	77.04	0.1	81.24	81.14	-0.1
165	80.04	80.34	0.3	82.24	82.04	-0.2
Low volume: 90 dB(A) @ 1 m max. / 70 dB(A) at 1 m min.						
Position (degrees)	Horizontal plane dB(A) @ 1 m			Vertical plane dB(A) @ 1 m		
	Vmin	Vmax	Diff	Vmin	Vmax	Diff
15	79.24	79.74	0.5	80.84	81.14	0.3
45	77.04	77.34	0.3	81.64	82.04	0.4
75	89.44	89.64	0.2	70.24	70.24	0
105	85.64	86.24	0.6	80.34	80.74	0.4
135	76.54	77.14	0.6	80.24	80.84	0.6
165	79.64	80.14	0.5	81.64	81.94	0.3

Tone 5 - Whoop 800-970 7 Hz



High volume: 90 dB(A) @ 1 m max. / 77 dB(A) @ 1 m min.						
Position (degrees)	Horizontal plane dB(A) @ 1 m			Vertical plane dB(A) @ 1 m		
	Vmin	Vmax	Diff	Vmin	Vmax	Diff
15	78.64	80.04	1.4	82.74	84.14	1.4
45	79.14	79.64	0.5	82.64	84.04	1.4
75	89.44	90.84	1.4	78.34	79.84	1.5
105	84.64	85.94	1.3	82.04	83.24	1.2
135	77.44	78.84	1.4	81.64	83.04	1.4
165	80.34	81.64	1.3	84.14	85.54	1.4
Low volume: 82 dB(A) @ 1 m max. / 70 dB(A) @ 1 m min.						
Position (degrees)	Horizontal plane dB(A) @ 1 m			Vertical plane dB(A) @ 1 m		
	Vmin	Vmax	Diff	Vmin	Vmax	Diff
15	71.24	71.34	0.1	73.54	74.74	1.2
45	71.64	71.64	0	73.74	74.74	1
75	81.54	81.74	0.2	69.94	70.84	0.9
105	77.44	77.54	0.1	73.14	73.74	0.6
135	69.54	69.84	0.3	72.84	73.54	0.7
165	72.94	73.04	0.1	74.64	75.64	1

Tone 7 - DIN tone 1200-500



High volume: 90 dB(A) @ 1 m max. / 77 dB(A) @ 1 m min.						
Position (degrees)	Horizontal plane dB(A) @ 1 m			Vertical plane dB(A) @ 1 m		
	Vmin	Vmax	Diff	Vmin	Vmax	Diff
15	78.34	79.44	1.1	82.04	83.44	1.4
45	78.94	79.64	0.7	81.84	83.34	1.5
75	89.24	90.44	1.2	78.14	79.64	1.5
105	84.74	85.54	0.8	81.44	82.54	1.1
135	77.04	78.64	1.6	81.04	82.34	1.3
165	79.94	80.94	1	83.34	84.94	1.6
High volume: 82 dB(A) @ 1 m max. / 70 dB(A) @ 1 m min.						
Position (degrees)	Horizontal plane dB(A) @ 1 m			Vertical plane dB(A) @ 1 m		
	Vmin	Vmax	Diff	Vmin	Vmax	Diff
15	71.04	71.04	0	74.24	74.34	0.1
45	71.24	71.24	0	74.34	74.44	0.1
75	81.64	81.84	0.2	70.74	70.74	0
105	77.74	77.74	0	73.64	73.74	0.1
135	69.84	70.04	0.2	73.14	73.34	0.2
165	72.74	72.74	0	75.14	75.34	0.2