



# **Explosion-proof Sounder dEV20**

Loud signalling device with 32 different signal tones for use in Zones 1+2 and 21+22

- ➤ Sound pressure level: up to 115 dB(A)
- ▶ 32 signal tones, 2-stage alarm
- ► Volume adjustable (3 steps of 10 dB)
- ► Aluminium housing, Polyamide
- ATEX Approval
- ▶ IP 66
- ► II 2 G Ex d e IIB + H2 T6 Gb
- ▶ II 2 D Ex tb IIIC T80°C Db



## **Application**

Hazardous areas often require the use of acoustical signals for warning or information purposes. The ExII-sounder dEV20 offers both of these signalling features. The device is designed for continuous operation. If the supply voltage is turned on, the sounder is activated.

The ExII-sounder dEV20 is made to protection category IP66 and may be used indoors or outdoors.

## **Design**

The Exll-Sounder consists of a compression-proof housing with aluminium alloy and a sound channel of impact-resistant polyester. The terminal compartment is executed in the protection type "extended safety".

The sounder dEV20 disposes of two signal levels. The signal tone for the first level is adjusted with the slide switches 1-5 (S0) according to the signal choice list. The signal tone for the second signal level is adjusted with the slide switches 6-10 (S1).

Delivery condition: S0 = Tone 24, S1 = Tone 4

To built up a signalling combination please use the mounting plate, made by V4A, with integrated junction box from the accessories.

# Warning in a chemical plant

The ExII-sounder dEV20 is made to protection category IP66 and may be used in zones 1 + 2 and 21 + 22.



#### **Technical specifications**

Housing seawater resistant Aluminium,

sound protection hood Polyamide (black)

Protection degree IP 66

Cable gland M20 x 1.5 (cable 5.5 to 13 mm)

Signal selection by DIP switches

Volume max. 115 dB(A) reducible in 3 levels

each by 10 dB

Signal tone 32 for each signal level

Current consumption 93 - 460 mA (dep. on voltage variation)

Power consumption max. 14 W
Clamping capacity to 2.5 mm²
Housing degree of protection IP 66
Protection class

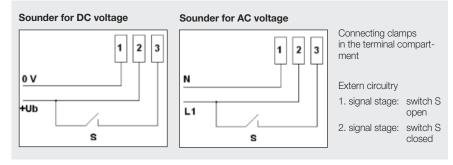
EC type examination certificate PTB 12 ATEX 1014
Ambient temperature T6: -50 °C to +60 °C

Type of protection II 2 G Ex d e IIB + H2 T6 Gb
II 2 D Ex tb IIIC T85°C Db

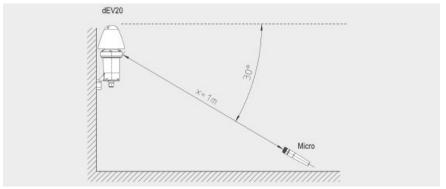
Dimensions ~ Ø 144 x 345 mm

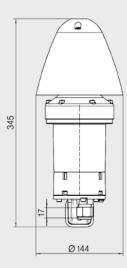
Weight 2.8 kg

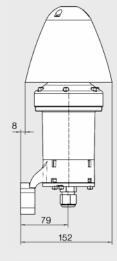
#### Switching of the signal levels

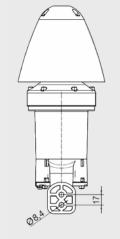


#### **Measurement Method**









#### **Order information**

Mounting plate with integrated junction box

Туре	Name	Rated Voltage U <sub>e</sub>	Current consumption	Article no.
dEV20	Ex-Sounder	24 VDC	460 mA	215 910 13
dEV20	Ex-Sounder	85 - 265 VAC	93 mA (230 V)	215 910 07
Accessories				

Subject to change without notice  $\cdot$  Printout 10/13

229 901 01



## Signal choice table

approx. 230 V 24 V 100 82 456 10 Continuous 554 Hz 100 82 456 11 Continuous 554 Hz 107 81 412 12 Continuous 600 Hz 107 81 412 13 Continuous 500 Hz 107 81 412 14 Continuous 500 Hz 107 81 412 15 Continuous 2400 Hz 107 81 412 16 Intermittent 420 Hz @ 0,800 Hz (0,625 s.or) 0,625 s.or) 10,625 s.				Current- Volume consumption dB(A) mA				
1   1   1   1   1   1   1   1   1   1				` '				
2 Continuous 660 Hz 3 Continuous 800 Hz 4 Continuous 800 Hz 4 Continuous 800 Hz 5 Continuous 2400 Hz 6 Intermittent 420 Hz @ 0,800 Hz 7 Intermittent 554 Hz @ 0,875 Hz (0,625 s on   0,625 s off) 101 86 460 107 81 412 107 88 460 107 88 460 107 88 460 107 88 460 107 88 460 107 88 161			0 Continuous 440 Hz	100	82	456		
3 Continuous 800 Hz 4 Continuous 1000 Hz 5 Continuous 1000 Hz 6 Intermittent 420 Hz @ 0,800 Hz 7 Intermittent 420 Hz @ 0,805 Hz 6 Intermittent 420 Hz @ 0,875 Hz 7 Intermittent 660 Hz @ 0,333 Hz 9 Intermittent 660 Hz @ 0,333 Hz 10 Intermittent 800 Hz @ 0,800 Hz 10 Intermittent 800 Hz @ 0,278 Hz 11 Intermittent 800 Hz @ 0,278 Hz 12 Intermittent 800 Hz @ 0,200 Hz 13 Intermittent 800 Hz @ 0,500 Hz 14 Intermittent 800 Hz @ 0,500 Hz 15 Intermittent 800 Hz @ 0,500 Hz 16 Intermittent 800 Hz @ 0,500 Hz 17 Intermittent 1000 Hz @ 1,000 Hz 18 Intermittent 1000 Hz @ 1,000 Hz 19 Intermittent 1000 Hz @ 1,000 Hz 10,500 s on   0,500 s off) 110 Intermittent 1000 Hz @ 1,000 Hz 15 Intermittent 1000 Hz @ 1,000 Hz 16 Intermittent 1000 Hz @ 1,000 Hz 17 Intermittent 1000 Hz @ 1,000 Hz 18 Intermittent 1000 Hz @ 1,000 Hz 19 Intermittent 1000 Hz @ 1,000 Hz 10 Intermitten			1 Continuous 554 Hz	106	80	425		
4 Continuous 1000 Hz  97 73 328  6 Intermittent 420 Hz @ 0,800 Hz  (0,625 s on   0,625 s off)  101 86 460  7 Intermittent 554 Hz @ 0,875 Hz  (0,571 s on   0,571 s off)  105 80 452  8 Intermittent 650 Hz @ 3,333 Hz  (0,150 s on   0,150 s off)  107 82 400  108 82 425  110 Intermittent 800 Hz @ 0,800 Hz  (0,250 s on   0,625 s off)  111 Intermittent 800 Hz @ 0,800 Hz  (0,250 s on   0,250 s off)  112 Intermittent 800 Hz @ 0,500 Hz  (0,250 s on   0,250 s off)  113 Intermittent 1000 Hz @ 0,500 Hz  (0,500 s on   0,500 s off)  114 Intermittent 1000 Hz @ 0,500 Hz  (0,500 s on   0,500 s off)  115 Altermating 554,4440 Hz @ 1,000 Hz  (0,500 s on   0,500 s off)  116 Altermating 554,4440 Hz @ 1,000 Hz  (0,500 s on   0,500 s off)  117 Altermating 500/1000 Hz @ 0,500 Hz  (0,500 s on   0,500 s off)  118 Altermating 500/1000 Hz @ 0,300 Hz  (0,500 s on   0,500 s off)  119 Altermating 500/1000 Hz @ 0,300 Hz  (0,500 s on   0,500 s off)  110 83 498  111 Altermating 500/1000 Hz @ 0,300 Hz  (0,500 s on   0,500 s off)  110 84 396  111 Altermating 500/1000 Hz @ 0,300 Hz  (0,500 s on   0,500 s off)  110 84 396  111 Altermating 500/1000 Hz @ 0,300 Hz  (0,500 s on   0,500 s off)  110 84 396  111 Altermating 500/1000 Hz @ 0,300 Hz  (0,500 s on   0,500 s off)  110 84 396  111 Altermating 500/1000 Hz @ 0,000 Hz  (0,500 s on   0,500 s off)  110 84 396  111 Altermating 500/1000 Hz @ 0,000 Hz  (0,500 s on   0,500 s off)  110 84 396  111 Altermating 500/1000 Hz @ 0,000 Hz  (0,500 s on   0,500 s off)  110 85 388  110 80 80 80 80 80 80 80 80 80 80 80 80 80			2 Continuous 660 Hz	107	80	428		
5 Continuous 2400 Hz 6 Intermittent 420 Hz @ 0,800 Hz 7 Intermittent 554 Hz @ 0,875 Hz 10,150 s on   0,625 s off) 101 86 460 10			3 Continuous 800 Hz	107	81	412		
6 Intermittent 420 Hz @ 0,800 Hz (0,625 s onf) 0,625 s off) 101 86 460  7 Intermittent 554 Hz @ 0,875 Hz (0,571 s onf) 0,571 s off) 105 80 452  8 Intermittent 660 Hz @ 0,333 Hz (0,150 s onf) 1,500 s off) 107 82 400  10 Intermittent 660 Hz @ 0,278 Hz (1,800 s onf) 1,800 s off) 108 82 425  11 Intermittent 800 Hz @ 0,800 Hz (0,250 s onf) 1,000 s off) 107 83 408  12 Intermittent 1000 Hz @ 0,500 Hz (1,000 s onf) 1,000 s off) 107 83 408  13 Intermittent 1000 Hz @ 1,000 Hz (0,500 s onf) 0,500 s off) 98 76 328  14 Intermittent 1000 Hz @ 1,000 Hz (0,500 s onf) 0,500 s off) 110 81 380  15 Alternating 554,440 Hz @ 1,000 Hz (0,500 s onf) 0,500 s off) 110 81 380  16 Alternating 554,440 Hz @ 1,000 Hz (0,500 s onf) 0,500 s off) 110 81 380  17 Alternating 380,71000 Hz @ 1,000 Hz (0,105 s onf) 10,500 s off) 105 90 448  18 Alternating 800,71000 Hz @ 0,875 Hz (0,571 s onf) 1,050 s off) 107 87 408  19 Alternating 380,71000 Hz @ 0,875 Hz (0,571 s onf) 1,050 s off) 107 87 408  19 Alternating 380,71000 Hz @ 0,800 Hz (0,250 s onf) 1,025 s onf) 10,500 s onf 10,500 s			4 Continuous 1000 Hz	97	73	328		
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8 Intermittent 660 Hz @ 3,333 Hz (0,150 s on   0,150 s off) 107 82 400   9 Intermittent 660 Hz @ 0,278 Hz (1,800 s on   1,800 s off) 108 82 425   10 Intermittent 800 Hz @ 0,800 Hz (0,250 s on   1,000 s off) 107 82 408   11 Intermittent 1000 Hz @ 0,500 Hz (1,000 s on   1,000 s off) 107 83 408   12 Intermittent 1000 Hz @ 0,500 Hz (1,000 s on   0,500 s off) 97 76 328   13 Intermittent 1000 Hz @ 1,000 Hz (0,500 s on   0,500 s off) 98 76 328   14 Intermittent 2400 Hz @ 1,000 Hz (0,500 s on   0,500 s off) 110 81 380   15 Alternating 5544440 Hz @ 1,000 Hz (0,500 s on   0,500 s off) 105 90 448   16 Alternating 5544440 Hz @ 2,000 Hz (0,100 s f1   0,500 s f2) 105 90 448   17 Alternating 800/1000 Hz @ 4,000 Hz (0,501 s f1   0,501 s f2) 106 84 396   18 Alternating 800/1000 Hz @ 0,875 Hz (0,571 s f1   0,571 s f2) 107 87 408   19 Alternating 2400/2900 Hz @ 2,000 Hz (0,250 s f1   0,250 s f2) 109 83 392   20 Sweeping 500/1200 Hz @ 0,300 Hz (1,667 s rise   1,667 s fall) 107 87 452   21 Sweeping 800/1000 Hz @ 1,000 Hz (0,001 s rise   0,001 s fall) 104 83 388   22 Sweeping 800/1000 Hz @ 0,657 Hz (1,000 s rise   0,010 s fall) 103 82 384   23 Sweeping 800/1000 Hz @ 0,657 Hz (1,000 s rise   0,500 s fall) 105 86 436   24 Sweeping 1200/500 Hz @ 1,000 Hz (0,001 s rise   0,500 s fall) 107 80 388   25 Sweeping 2400/2900 Hz @ 1,000 Hz (0,000 s rise   0,500 s fall) 107 80 388   26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,000 s rise   0,000 s fall) 107 80 388   27 Sweeping 2400/2900 Hz @ 1,000 Hz (0,000 s rise   0,000 s fall) 107 80 388   28 Sweeping 2400/2900 Hz @ 1,000 Hz (0,000 s rise   0,000 s fall) 105 86 448   39 Slow Whoop 500/1200 Hz @ 0,000 Hz (0,000 s rise   0,000 s fall) 10,000 s off) 108 86 444   30 Slow Whoop 500/1200 Hz @ 0,0300 Hz (1,000 s rise   0,000 s fall) 10,000 s off) 107 75 328   30 Slow Whoop 500/1200 Hz @ 1,000 Hz (1,000 s rise   0,000 s fall) 10,000 s off) 107 75 328   30 Slow Whoop 500/1200 Hz @ 1,000 Hz (1,000 s rise   0,000 s fall) 10,000 s off) 107 75 328   31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall			6 Intermittent 420 Hz @ 0,800 Hz (0,625 s on   0,625 s off)	101	86	460		
9 Intermittent 660 Hz @ 0,278 Hz (1,800 s on) 1,800 s off) 108 82 425 10 Intermittent 800 Hz @ 0,800 Hz (0,250 s on) 1,000 s off) 107 82 408 11 Intermittent 1000 Hz @ 0,500 Hz (1,000 s on) 1,000 s off) 97 76 328 12 Intermittent 1000 Hz @ 0,500 Hz (1,000 s on) 1,000 s off) 97 76 328 13 Intermittent 1000 Hz @ 1,000 Hz (0,500 s on) 0,500 s off) 98 76 328 14 Intermittent 2400 Hz @ 1,000 Hz (0,500 s on) 0,500 s off) 110 81 380 15 Alternating 554/440 Hz @ 1,000 Hz (0,500 s on) 0,500 s off) 110 81 380 16 Alternating 554/440 Hz @ 1,000 Hz (0,500 s on) 0,500 s off) 110 81 380 17 Alternating 554/440 Hz @ 2,000 Hz (0,100 s f1) 0,500 s f2) 105 90 448 18 Alternating 300/1000 Hz @ 4,000 Hz (0,510 s f1) 0,507 s f2) 106 84 396 19 Alternating 2400/2900 Hz @ 2,000 Hz (0,250 s f1) 0,250 s f2) 107 87 408 19 Alternating 2400/2900 Hz @ 2,000 Hz (0,250 s f1) 0,250 s f2) 109 83 392 20 Sweeping 500/1200 Hz @ 0,300 Hz (1,667 s rise) 1,667 s fall) 107 87 452 21 Sweeping 800/1000 Hz @ 1,000 Hz (0,500 s rise) 0,500 s fall) 104 83 388 22 Sweeping 800/1000 Hz @ 7,000 Hz (0,001 s rise) 0,010 s fall) 103 82 384 23 Sweeping 800/1000 Hz @ 1,000 Hz (1,000 s rise) 0,500 s fall) 109 80 396 24 Sweeping 1200/500 Hz @ 1,000 Hz (1,000 s rise) 0,500 s fall) 109 80 396 25 Sweeping 1200/500 Hz @ 1,000 Hz (0,001 s rise) 0,500 s fall) 106 81 388 26 Sweeping 2400/2900 Hz @ 0,000 Hz (0,000 s rise) 0,500 s fall) 106 81 388 27 Sweeping 2400/2900 Hz @ 0,000 Hz (0,000 s rise) 0,000 s fall) 107 80 388 28 Sweeping 2400/2900 Hz @ 0,000 Hz (0,000 s rise) 0,000 s fall) 107 80 388 38 448 38 38 448 38 38 448 38 38 448 38 38 448 39 38 39 500 Whoop 500/1200 Hz @ 0,000 Hz (0,000 s rise) 0,000 s fall) 10,000 s off) 107 75 328			7 Intermittent 554 Hz @ 0,875 Hz (0,571 s on   0,571 s off)	105	80	452		
10 Intermittent 800 Hz @ 0,800 Hz (0,250 s on   1,000 s off) 107 82 408 11 Intermittent 800 Hz @ 2,000 Hz (0,250 s on   0,250 s off) 107 83 408 12 Intermittent 1000 Hz @ 0,500 Hz (1,000 s on   1,000 s off) 97 76 328 13 Intermittent 1000 Hz @ 1,000 Hz (0,500 s on   0,500 s off) 98 76 328 13 Intermittent 1000 Hz @ 1,000 Hz (0,500 s on   0,500 s off) 98 76 328 14 Intermittent 2400 Hz @ 1,000 Hz (0,500 s on   0,500 s off) 110 81 380 15 Alternating 554,4440 Hz @ 1,000 Hz (0,500 s on   0,500 s off) 110 81 380 16 Alternating 554,4440 Hz @ 2,000 Hz (0,100 s on   0,500 s off) 110 81 380 16 Alternating 800/1000 Hz @ 4,000 Hz (0,100 s on   0,500 s off) 110 84 396 17 Alternating 800/1000 Hz @ 4,000 Hz (0,125 s on   0,500 s			8 Intermittent 660 Hz @ 3,333 Hz (0,150 s on   0,150 s off)	107	82	400		
11 Intermittent 800 Hz @ 2,000 Hz (0,250 s off) 107 83 408  12 Intermittent 1000 Hz @ 0,500 Hz (1,000 s off) 97 76 328  13 Intermittent 1000 Hz @ 1,000 Hz (0,500 s off) 98 76 328  14 Intermittent 1000 Hz @ 1,000 Hz (0,500 s off) 98 76 328  15 Alternating 554/440 Hz @ 1,000 Hz (0,500 s off) 110 81 380  16 Alternating 554/440 Hz @ 1,000 Hz (0,500 s off) 110 81 380  17 Alternating 800/1000 Hz @ 4,000 Hz (0,100 s off) 10,500 s off) 103 92 450  18 Alternating 800/1000 Hz @ 0,0075 Hz (0,571 s off) 10,71 s off) 107 87 408  19 Alternating 2400/2900 Hz @ 0,300 Hz (0,250 s off) 109 83 392  20 Sweeping 500/1000 Hz @ 1,000 Hz (0,500 s off) 107 87 452  21 Sweeping 800/1000 Hz @ 1,000 Hz (0,500 s off) 106 84 396  22 Sweeping 800/1000 Hz @ 1,000 Hz (0,500 s off) 104 83 388  23 Sweeping 800/1000 Hz @ 0,000 Hz (0,010 s off) 104 83 388  24 Sweeping 1200/500 Hz @ 1,000 Hz (0,010 s off) 106 86 436  25 Sweeping 1400/1600 Hz @ 0,0667 Hz (1,000 s off) 109 80 396  26 Sweeping 2400/2900 Hz @ 0,0667 Hz (1,000 s off) 107 80 388  28 Sweeping 2400/2900 Hz @ 0,000 Hz (0,071 s off) 109 80 396  28 Sweeping 2400/2900 Hz @ 0,067 Hz (0,071 s off) 107 80 388  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s off) 0,000 s off) 108 86 444  30 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s off) 0,000 s off) 108 86 444  30 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s off) 0,000 s off) 108 86 444  30 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s off) 0,000 s off) 107 75 328			9 Intermittent 660 Hz @ 0,278 Hz (1,800 s on   1,800 s off)	108	82	425		
12 Intermittent 1000 Hz @ 0,500 Hz (1,000 s on   1,000 s off) 97 76 328  13 Intermittent 1000 Hz @ 1,000 Hz (0,500 s on   0,500 s off) 98 76 328  14 Intermittent 2400 Hz @ 1,000 Hz (0,500 s on   0,500 s off) 110 81 380  15 Altermating 554,440 Hz @ 1,000 Hz (0,500 s ft) 10,500 s ft) 105 90 448  16 Altermating 554,440 Hz @ 2,000 Hz (0,100 s ft) 0,400 s ft) 103 92 450  17 Altermating 800/1000 Hz @ 4,000 Hz (0,100 s ft) 0,125 s ft) 10,125 s ft) 10			10 Intermittent 800 Hz @ 0,800 Hz (0,250 s on   1,000 s off)	107	82	408		
13 Intermittent 1000 Hz @ 1,000 Hz (0,500 s on   0,500 s off) 98 76 328  14 Intermittent 2400 Hz @ 1,000 Hz (0,500 s on   0,500 s off) 110 81 380  15 Alternating 554/440 Hz @ 1,000 Hz (0,500 s f1   0,500 s f2) 105 90 448  16 Alternating 554/440 Hz @ 2,000 Hz (0,100 s f1   0,400 s f2) 103 92 450  17 Alternating 800/1000 Hz @ 4,000 Hz (0,125 s f1   0,125 s f2) 106 84 396  18 Alternating 800/1000 Hz @ 0,875 Hz (0,571 s f1   0,571 s f2) 107 87 408  19 Alternating 800/1000 Hz @ 2,000 Hz (0,250 s f1   0,250 s f2) 109 83 392  20 Sweeping 500/1200 Hz @ 0,300 Hz (1,667 s rise   1,667 s fall) 107 87 452  21 Sweeping 800/1000 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 106 84 396  22 Sweeping 800/1000 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 104 83 388  23 Sweeping 800/1000 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 103 82 384  24 Sweeping 1200/500 Hz @ 1,000 Hz (1,000 s fall   0,000 s rise) 106 86 436  25 Sweeping 1200/500 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 115 86 408  26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 109 80 396  27 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 109 80 396  28 Sweeping 2400/2900 Hz @ 1,000 Hz (0,071 s rise   0,000 s fall) 107 80 388  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 88 448  30 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 88 448  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328			11 Intermittent 800 Hz @ 2,000 Hz (0,250 s on   0,250 s off)	107	83	408		
14 Intermittent 2400 Hz @ 1,000 Hz (0,500 s on   0,500 s off) 110 81 380 15 Alternating 554/440 Hz @ 1,000 Hz (0,500 s f1   0,500 s f2) 105 90 448 16 Alternating 554/440 Hz @ 2,000 Hz (0,100 s f1   0,400 s f2) 103 92 450 17 Alternating 800/1000 Hz @ 4,000 Hz (0,125 s f1   0,125 s f2) 106 84 396 18 Alternating 800/1000 Hz @ 0,875 Hz (0,571 s f1   0,571 s f2) 107 87 408 19 Alternating 800/1000 Hz @ 2,000 Hz (0,250 s f1   0,250 s f2) 109 83 392 20 Sweeping 500/1200 Hz @ 0,300 Hz (0,500 s rise   0,500 s fall) 107 87 452 12 Sweeping 800/1000 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 106 84 396 22 Sweeping 800/1000 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 104 83 388 23 84 24 Sweeping 1200/500 Hz @ 1,000 Hz (1,000 s fall   0,000 s rise) 106 86 436 25 Sweeping 1400/1600 Hz @ 0,667 Hz (1,000 s rise   0,500 s fall) 107 80 386 436 26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 107 80 388 28 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 107 80 388 448 30 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall) 106 81 388 448 30 Slow Whoop 500/1200 Hz @ 0,000 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 88 448 31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328			12 Intermittent 1000 Hz @ 0,500 Hz (1,000 s on   1,000 s off)	97	76	328		
15 Alternating 554/440 Hz @ 1,000 Hz (0,500 sf1   0,500 sf2) 105 90 448  16 Alternating 554/440 Hz @ 2,000 Hz (0,100 sf1   0,400 sf2) 103 92 450  17 Alternating 800/1000 Hz @ 4,000 Hz (0,125 sf1   0,125 sf2) 106 84 396  18 Alternating 800/1000 Hz @ 0,875 Hz (0,571 sf1   0,571 sf2) 107 87 408  19 Alternating 2400/2900 Hz @ 2,000 Hz (0,250 sf1   0,250 sf2) 109 83 392  20 Sweeping 500/1200 Hz @ 0,300 Hz (1,667 s rise   1,667 s fall) 107 87 452  21 Sweeping 800/1000 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 106 84 396  22 Sweeping 800/1000 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 103 82 384  23 Sweeping 800/1000 Hz @ 1,000 Hz (1,000 s fall   0,000 s rise) 106 86 436  24 Sweeping 1200/500 Hz @ 1,000 Hz (1,000 s rise   0,500 s fall) 115 86 408  25 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 109 80 396  26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,010 s rise   0,010 s fall) 107 80 388  27 Sweeping 2400/2900 Hz @ 7,000 Hz (0,010 s rise   0,010 s fall) 107 80 388  28 Sweeping 2400/2900 Hz @ 7,000 Hz (0,010 s rise   0,010 s fall) 107 80 388  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 88 448  30 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 86 444  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328			13 Intermittent 1000 Hz @ 1,000 Hz (0,500 s on   0,500 s off)	98	76	328		
16 Alternating 554,440 Hz @ 2,000 Hz (0,100 sf1   0,400 sf2) 103 92 450 17 Alternating 800/1000 Hz @ 4,000 Hz (0,125 sf1   0,125 sf2) 106 84 396 18 Alternating 800/1000 Hz @ 0,875 Hz (0,571 sf1   0,571 sf2) 107 87 408 19 Alternating 2400/2900 Hz @ 2,000 Hz (0,250 sf1   0,250 sf2) 109 83 392 109 800/1000 Hz @ 1,000 Hz (0,500 sf31   0,250 sf2) 109 83 392 11 Sweeping 800/1000 Hz @ 1,000 Hz (0,500 sf31   0,500 sf31   0,667 sf31   0,667 sf31   0,667 sf31   0,671 sf31   0,67			14 Intermittent 2400 Hz @ 1,000 Hz (0,500 s on   0,500 s off)	110	81	380		
17 Alternating 800/1000 Hz @ 4,000 Hz (0,125 sf1   0,125 sf2) 106 84 396  18 Alternating 800/1000 Hz @ 0,875 Hz (0,571 sf1   0,571 sf2) 107 87 408  19 Alternating 2400/2900 Hz @ 2,000 Hz (0,250 sf1   0,250 sf2) 109 83 392  20 Sweeping 500/1200 Hz @ 0,300 Hz (1,667 s rise   1,667 s fall) 107 87 452  21 Sweeping 800/1000 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 106 84 396  22 Sweeping 800/1000 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 104 83 388  23 Sweeping 800/1000 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 103 82 384  24 Sweeping 1200/500 Hz @ 1,000 Hz (1,000 s fall   0,000 s rise) 106 86 436  25 Sweeping 1400/1600 Hz @ 0,567 Hz (1,000 s rise   0,500 s fall) 115 86 408  26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 109 80 396  27 Sweeping 2400/2900 Hz @ 7,000 Hz (0,010 s rise   0,071 s rise   0,071 s fall) 107 80 388  28 Sweeping 2400/2900 Hz @ 7,000 Hz (0,010 s rise   0,010 s fall) 106 81 388  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 88 448  30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off) 108 86 444  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328			15 Alternating 554/440 Hz @ 1,000 Hz (0,500 s f1   0,500 s f2)	105	90	448		
18 Alternating 800/1000 Hz @ 0,875 Hz (0,571 sf1   0,571 sf2) 107 87 408  19 Alternating 2400/2900 Hz @ 2,000 Hz (0,250 sf1   0,250 sf2) 109 83 392  20 Sweeping 500/1200 Hz @ 0,300 Hz (1,667 s rise   1,667 s fall) 107 87 452  21 Sweeping 800/1000 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 106 84 396  22 Sweeping 800/1000 Hz @ 50,00 Hz (0,071 s rise   0,071 s fall) 104 83 388  23 Sweeping 800/1000 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 103 82 384  24 Sweeping 1200/500 Hz @ 1,000 Hz (1,000 s fall   0,000 s rise) 106 86 436  25 Sweeping 1400/1600 Hz @ 0,667 Hz (1,000 s rise   0,500 s fall) 115 86 408  26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 107 80 388  27 Sweeping 2400/2900 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 107 80 388  28 Sweeping 2400/2900 Hz @ 50,00 Hz (0,071 s rise   0,001 s fall) 106 81 388  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 86 448  30 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 86 444  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328			16 Alternating 554,440 Hz @ 2,000 Hz (0,100 s f1   0,400 s f2)	103	92	450		
19 Alternating 2400/2900 Hz @ 2,000 Hz (0,250 s f1   0,250 s f2) 109 83 392  20 Sweeping 500/1200 Hz @ 0,300 Hz (1,667 s rise   1,667 s fall) 107 87 452  21 Sweeping 800/1000 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 106 84 396  22 Sweeping 800/1000 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 104 83 388  23 Sweeping 800/1000 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 103 82 384  24 Sweeping 1200/500 Hz @ 1,000 Hz (1,000 s fall   0,000 s rise) 106 86 436  25 Sweeping 1400/1600 Hz @ 0,667 Hz (1,000 s rise   0,500 s fall) 115 86 408  26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 109 80 396  27 Sweeping 2400/2900 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 107 80 388  28 Sweeping 2400/2900 Hz @ 50,00 Hz (0,010 s rise   0,000 s fall   0,500 s off) 108 81 388  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 86 444  30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off) 108 86 444  30 Maximum volume 1 Attenuated volume -10 dB (A)			17 Alternating 800/1000 Hz @ 4,000 Hz (0,125 s f1   0,125 s f2)	106	84	396		
20 Sweeping 500/1200 Hz @ 0,300 Hz (1,667 s rise   1,667 s fall) 107 87 452 21 Sweeping 800/1000 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 106 84 396 22 Sweeping 800/1000 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 104 83 388 23 Sweeping 800/1000 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 103 82 384 24 Sweeping 1200/500 Hz @ 1,000 Hz (1,000 s fall   0,000 s rise) 106 86 436 25 Sweeping 1400/1600 Hz @ 0,667 Hz (1,000 s rise   0,500 s fall) 115 86 408 26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 109 80 396 27 Sweeping 2400/2900 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 107 80 388 28 Sweeping 2400/2900 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 106 81 388 29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 86 444 30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off) 108 86 444 31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328			18 Alternating 800/1000 Hz @ 0,875 Hz (0,571 s f1   0,571 s f2)	107	87	408		
21 Sweeping 800/1000 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 106 84 396  22 Sweeping 800/1000 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 104 83 388  23 Sweeping 800/1000 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 103 82 384  24 Sweeping 1200/500 Hz @ 1,000 Hz (1,000 s fall   0,000 s rise) 106 86 436  25 Sweeping 1400/1600 Hz @ 0,667 Hz (1,000 s rise   0,500 s fall) 115 86 408  26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 109 80 396  27 Sweeping 2400/2900 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 107 80 388  28 Sweeping 2400/2900 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 106 81 388  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 88 448  30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off) 108 86 444  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328			19 Alternating 2400/2900 Hz @ 2,000 Hz (0,250 s f1   0,250 s f2)	109	83	392		
22 Sweeping 800/1000 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 104 83 388  23 Sweeping 800/1000 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 103 82 384  24 Sweeping 1200/500 Hz @ 1,000 Hz (1,000 s fall   0,000 s rise) 106 86 436  25 Sweeping 1400/1600 Hz @ 0,667 Hz (1,000 s rise   0,500 s fall) 115 86 408  26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 109 80 396  27 Sweeping 2400/2900 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 107 80 388  28 Sweeping 2400/2900 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 106 81 388  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 88 448  30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off) 108 86 444  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328			20 Sweeping 500/1200 Hz @ 0,300 Hz (1,667 s rise   1,667 s fall)	107	87	452		
23 Sweeping 800/1000 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 103 82 384  24 Sweeping 1200/500 Hz @ 1,000 Hz (1,000 s fall   0,000 s rise) 106 86 436  25 Sweeping 1400/1600 Hz @ 0,667 Hz (1,000 s rise   0,500 s fall) 115 86 408  26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 109 80 396  27 Sweeping 2400/2900 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 107 80 388  28 Sweeping 2400/2900 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 106 81 388  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 88 448  30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off) 108 86 444  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328			21 Sweeping 800/1000 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall)	106	84	396		
24 Sweeping 1200/500 Hz @ 1,000 Hz (1,000 s fall   0,000 s rise) 106 86 436  25 Sweeping 1400/1600 Hz @ 0,667 Hz (1,000 s rise   0,500 s fall) 115 86 408  26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 109 80 396  27 Sweeping 2400/2900 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 107 80 388  28 Sweeping 2400/2900 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 106 81 388  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 88 448  30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off) 108 86 444  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328			22 Sweeping 800/1000 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall)	104	83	388		
25 Sweeping 1400/1600 Hz @ 0,567 Hz (1,000 s rise   0,500 s fall) 115 86 408  26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall) 109 80 396  27 Sweeping 2400/2900 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall) 107 80 388  28 Sweeping 2400/2900 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 106 81 388  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 88 448  30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off) 108 86 444  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328			23 Sweeping 800/1000 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall)	103	82	384		
26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall)  27 Sweeping 2400/2900 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall)  28 Sweeping 2400/2900 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall)  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off)  30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off)  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off)  0 Maximum volume  1 Attenuated volume -10 dB (A)			24 Sweeping 1200/500 Hz @ 1,000 Hz (1,000 s fall   0,000 s rise)	106	86	436		
27 Sweeping 2400/2900 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall)  28 Sweeping 2400/2900 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall)  106 81 388  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off)  30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off)  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off)  0 Maximum volume  1 Attenuated volume -10 dB (A)			25 Sweeping 1400/1600 Hz @ 0,667 Hz (1,000 s rise   0,500 s fall)	115	86	408		
28 Sweeping 2400/2900 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall) 106 81 388  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 88 448  30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off) 108 86 444  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328  0 Maximum volume  1 Attenuated volume -10 dB (A)			26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall)	109	80	396		
29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) 108 88 448  30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off) 108 86 444  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328  0 Maximum volume  1 Attenuated volume -10 dB (A)			27 Sweeping 2400/2900 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall)	107	80	388		
30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off) 108 86 444  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328  0 Maximum volume 1 Attenuated volume -10 dB (A)			28 Sweeping 2400/2900 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall)	106	81	388		
30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off) 108 86 444  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328  0 Maximum volume 1 Attenuated volume -10 dB (A)			29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off)	108	88	448		
31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) 107 75 328  0 Maximum volume 1 Attenuated volume -10 dB (A)			30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off)	108	86	444		
1 Attenuated volume -10 dB (A)	<b>8</b>		31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off)	107	75	328		
			0 Maximum volume					
1 2 3 4 5 8 7 8 9 10 11 12  S0 Sound S1 Sound Vol  3 Attenuated volume -20 dB (A)  3 Attenuated volume -30 dB (A)	1 Attenuated volume -10 dB (A)							
3 Attenuated volume -30 dB (A)	1 2 3 4 5 8 7 8 9 10 11 12 2 Attenuated volume -20 dB (A)							
	50 50	und	3 Attenuated volume -30 dB (A)					