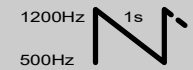
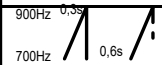
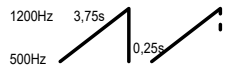
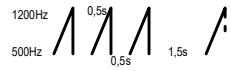
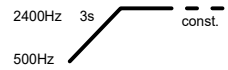
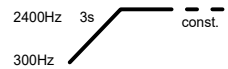
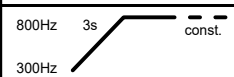
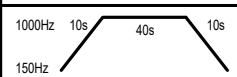
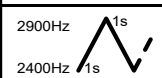
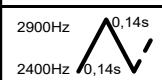
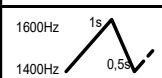
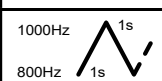
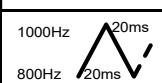
Pfannenberg
ELEKTROTECHNIK FÜR DIE INDUSTRIE

Pfannenberg GmbH
Werner-Witt-Str. 1
D-21035 Hamburg
Telefon 0049 (0)40/ 7 34 12 - 0
Telefax 0049 (0)40/ 7 34 12 - 345
Internet http:\\www.pfannenberg.com

# PA (X) 20 / PATROL-Serie

## Schalldruckpegel und Stromaufnahme PA 20 DC gemäß VdS/EN54-3 Zulassung / *sound pressure level and current drain of PA 20 DC acc. to VdS/EN54-3*

| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 12V DC | 24V DC | 48V DC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| 1 | Silence | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 2 | Saw tooth, Germany DIN 33404-3 (emergency signal), PFEER PAPA |  | 385 | 477 | 230 | 117,9 |
| 9 | Slow whoop, fire alarm, UK BS5839-1 |  | 410 | 505 | 237 | 114,8 |
| 11 | Whoop (fast) |  | 412 | 510 | 252 | 113,6 |
| 13 | Whoop |  | 220 | 259 | 158 | 115,5 |
| 15 | Slow whoop, evacuation, Netherlands NEN 2575 |  | 360 | 470 | 219 | 118,6 |
| 16 | Slow whoop, evacuation Australia AS2220 |  | 370 | 470 | 222 | 118,9 |
| 18 | Slow whoop, NFPA |  | 275 | 365 | 170 | 115,6 |
| 22 | Whoop, Australia AS1670, ISO8201 |  | 245 | 330 | 140 | 117,3 |
| 23 | Siren |  | 420 | 520 | 247 | 120,3 |
| 24 | Siren |  | 400 | 505 | 240 | 118,8 |
| 25 | Siren |  | 380 | 476 | 225 | 116,8 |
| 26 | Industrial alarm (Germany) |  | 365 | 450 | 217 | 116,7 |
| 27 | Sweeping |  | 425 | 521 | 248 | 117 |
| 29 | Sweeping (fast) |  | 425 | 529 | 251 | 114,3 |
| 30 | Sweeping |  | 425 | 526 | 254 | 115,4 |
| 31 | Sweeping, France NF C 48-265 |  | 420 | 533 | 244 | 118,7 |
| 33 | Sweeping, UK BS5839-1 (medium sweep) |  | 395 | 490 | 234 | 116,7 |
| 34 | Sweeping (fast) |  | 384 | 483 | 229 | 114,7 |

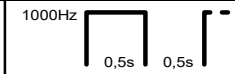
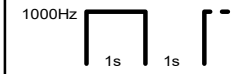
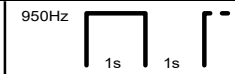
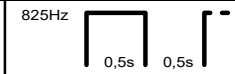
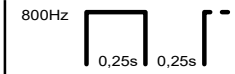
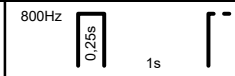
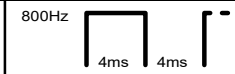
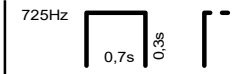
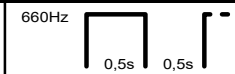
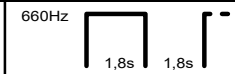
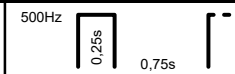
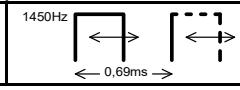
*Schallgeber, die mit weniger als 18V DC betrieben werden, erreichen nicht den, in der Tabelle angegebenen, Schallpegel!
*Devices which were biased with less than 18V DC will not reach the stated sound pressure level.

☐ Töne nach EN54-3 / *Tone according to EN54-3*

| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 12V DC | 24V DC | 48V DC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| | | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 35 | Sweeping, UK BS5839-1 (fast sweep) | 1000Hz 800Hz 0,14s 0,14s | 390 | 481 | 231 | 115,2 |
| 36 | Sweeping | 1500Hz 700Hz 3s 3s | 390 | 493 | 234 | 118,5 |
| 43 | Sweeping | 1200Hz 500Hz 3s 3s | 384 | 476 | 228 | 118,9 |
| 44 | Sweeping, IMO 3d, Germany KTA3901 evacuation | 1200Hz 500Hz 2s 2s | 388 | 492 | 260 | 118,6 |
| 45 | Sweeping | 1200Hz 500Hz 6s 6s | 384 | 475 | 230 | 119,3 |
| 46 | Sweeping, Finland General Alarm | 1500Hz 500Hz 14s 14s | 400 | 493 | 247 | 118,6 |
| 52 | Continuous | 2400Hz | 424 | 523 | 254 | 116,3 |
| 53 | Continuous | 2000Hz | 422 | 529 | 259 | 119,1 |
| 54 | Continuous, Finland All Clear | 1500Hz | 429 | 525 | 258 | 117,2 |
| 55 | Continuous | 1200Hz | 397 | 500 | 240 | 117,1 |
| 56 | Continuous, PFEER (Gasalarm) | 1000Hz | 370 | 453 | 220 | 114,3 |
| 57 | Continuous, UK BS5839-1 | 950Hz | 409 | 505 | 254 | 112,2 |
| 59 | Continuous | 880Hz | 425 | 515 | 255 | 112,9 |
| 60 | Continuous | 825Hz | 392 | 487 | 239 | 114,4 |
| 61 | Continuous | 800Hz | 368 | 462 | 233 | 112,9 |
| 63 | Continuous | 725Hz | 336 | 430 | 216 | 115,2 |
| 65 | Continuous, Sweden SS031711 (All Clear) | 660Hz | 415 | 505 | 243 | 112 |
| 66 | Continuous | 554Hz | 415 | 503 | 247 | 111,7 |
| 67 | Continuous, Germany KTA3901 (All Clear) | 500Hz | 383 | 480 | 240 | 110,6 |
| 68 | Continuous | 470Hz | 427 | 525 | 273 | 107,1 |

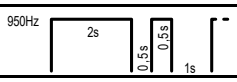
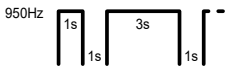
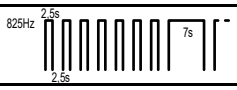
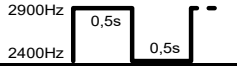
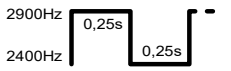
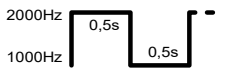
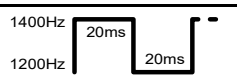
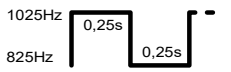
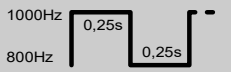
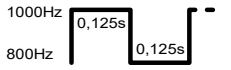
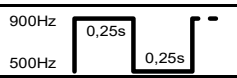
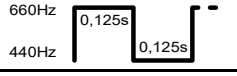
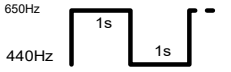
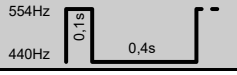
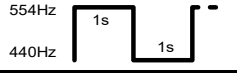
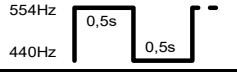
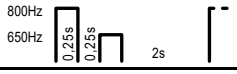
*Schallgeber, die mit weniger als 18V DC betrieben werden, erreichen nicht den, in der Tabelle angegebenen, Schallpegel!
*Devices which were biased with less than 18V DC will not reach the stated sound pressure level.

Töne nach EN54-3 / *Tone according to EN54-3*

| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 12V DC | 24V DC | 48V DC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| | | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 69 | Continuous |  | 439 | 540 | 253 | 107,1 |
| 71 | Continuous |  | 450 | 560 | 262 | 108,9 |
| 77 | Intermittent |  | 305 | 390 | 186 | 116,7 |
| 82 | Intermittent, PFEER (General Alarm), UK BS5839-1 (Back-up Alarm) |  | 260 | 335 | 160 | 114,6 |
| 83 | Intermittent, PFEER (General Alarm) |  | 262 | 333 | 159 | 114,6 |
| 88 | Intermittent |  | 290 | 371 | 180 | 111,9 |
| 90 | Intermittent |  | 230 | 297 | 142 | 116,7 |
| 91 | Intermittent |  | 268 | 350 | 167 | 116,7 |
| 92 | Intermittent |  | 138 | 153 | 88 | 116,6 |
| 93 | Intermittent (fast), electromechanical horn |  | 225 | 325 | 154 | 113,7 |
| 97 | Intermittent |  | 278 | 360 | 171 | 114,8 |
| 98 | Intermittent, Sweden SS 031711 (Imminent Danger) |  | 260 | 340 | 170 | 112,1 |
| 100 | Intermittent, Industrial Alarm (Germany) |  | 290 | 373 | 173 | 111,9 |
| 101 | Intermittent, Sweden SS031711 (Important Message (Pre Mess)) |  | 415 | 501 | 255 | 111,9 |
| 102 | Intermittent, Sweden SS031711 (Local Warning) |  | 295 | 376 | 188 | 112,4 |
| 103 | Intermittent, Sweden SS031711 (Air Raid) |  | 320 | 384 | 169 | 112,5 |
| 104 | Intermittent, Sweden SS031711 (Imminent Danger) |  | 260 | 335 | 164 | 112,2 |
| 107 | Intermittent, Germany KTA3901 (evacuation) |  | 197 | 262 | 130 | 110,6 |
| 109 | Intermittent, Australia AS2220,AS1610, AS1670 |  | 330 | 420 | 193 | 105,6 |
| 110 | Intermittent (fast variable), Bell |  | 451 | 540 | 256 | 112 |

*Schallgeber, die mit weniger als 18V DC betrieben werden, erreichen nicht den, in der Tabelle angegebenen, Schallpegel!
*Devices which were biased with less than 18V DC will not reach the stated sound pressure level.

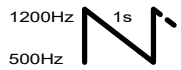
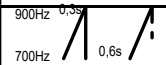
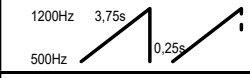
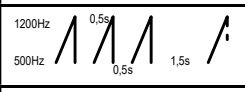
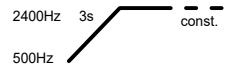
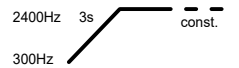
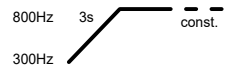
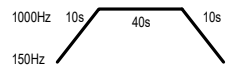
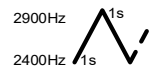
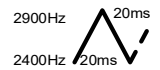
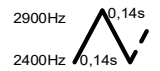
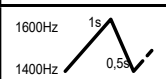
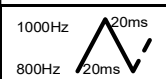
☐Töne nach EN54-3 / *Tone according to EN54-3*

| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 12V DC | 24V DC | 48V DC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| | | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 111 | Intermittent, ISO8201 (emergency evacuation signal), USA (evacuation) |  | 265 | 358 | 163 | 107,8 |
| 112 | Intermittent, ISO8201 (emergency evacuation signal) |  | 238 | 338 | 150 | 112,4 |
| 113 | Intermittent, ISO8201 (emergency evacuation signal) treble tone |  | 250 | 320 | 164 | 111,9 |
| 115 | Intermittent, IMO (Telefon Call) |  | 300 | 437 | 199 | 112,1 |
| 116 | Intermittent, IMO (abandon ship) |  | 335 | 430 | 198 | 111,9 |
| 117 | Intermittent, IMO SOLAS III/50 + SOLAS III/6.4 (General Alarm) |  | 280 | 360 | 179 | 115,1 |
| 122 | Alternating |  | 428 | 530 | 274 | 116,8 |
| 123 | Alternating |  | 430 | 526 | 248 | 116,8 |
| 124 | Alternating, Singapore |  | 392 | 485 | 230 | 119,5 |
| 125 | Alternating |  | 415 | 526 | 270 | 116,1 |
| 128 | Alternating |  | 370 | 470 | 234 | 116,0 |
| 130 | Alternating, UK BS5839-1(Fire Alarm) |  | 372 | 463 | 222 | 116,7 |
| 131 | Alternating, UK BS5839-1(Fire Alarm, Level crossing) |  | 372 | 473 | 225 | 116,7 |
| 135 | Alternating, UK BS5839-1 (Fire Alarm, increased urgency – Level crossing) |  | 372 | 463 | 223 | 116,3 |
| 142 | Alternating |  | 400 | 500 | 239 | 112,1 |
| 143 | Alternating, Germany Industrial Alarm |  | 423 | 524 | 247 | 111,3 |
| 144 | Alternating |  | 423 | 515 | 247 | 112,6 |
| 146 | Alternating, France NFS 32-001 (fire alarm) |  | 432 | 521 | 255 | 110 |
| 147 | Alternating, Sweden SS031711 (turn out) |  | 428 | 525 | 279 | 111,5 |
| 148 | Alternating, Sweden SS031711 (turn out) |  | 425 | 520 | 248 | 111,5 |
| 152 | Alternating-intermittent |  | 164 | 240 | 113 | 116,7 |

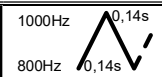
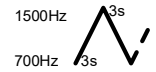
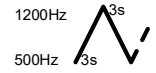
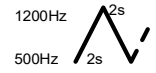
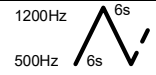
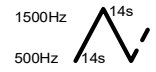
*Schallgeber, die mit weniger als 18V DC betrieben werden, erreichen nicht den, in der Tabelle angegebenen, Schallpegel!
*Devices which were biased with less than 18V DC will not reach the stated sound pressure level.

☐Töne nach EN54-3 / *Tone according to EN54-3*

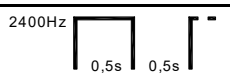
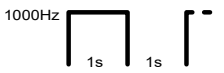
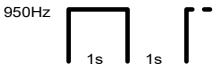
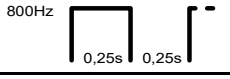
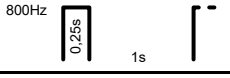
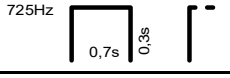
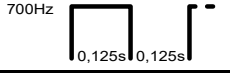
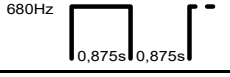
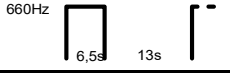
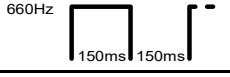
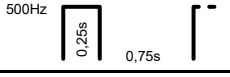
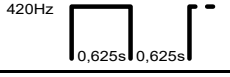
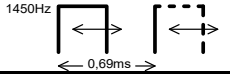
## **Schalldruckpegel und Stromaufnahme Schallgeber PA 20 AC/**
*sound pressure level and current drain of PA 20 AC-sounder*

| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 115V AC | 230V AC | 24V AC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| 1 | Silence | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 2 | Saw tooth, Germany DIN 33404-3 (emergency signal), PFEER PAPA |  | 254 | 154 | 772 | 118,6 |
| 9 | Slow whoop, fire alarm, UK BS5839-1 |  | 258 | 158 | 800 | 115,7 |
| 11 | Whoop (fast) |  | 262 | 160 | 853 | 114,5 |
| 13 | Whoop |  | 153 | 100 | 439 | 116,4 |
| 15 | Slow whoop, evacuation, Netherlands NEN 2575 |  | 237 | 154 | 757 | 119,5 |
| 16 | Slow whoop, evacuation Australia AS2220 |  | 238 | 155 | 738 | 119,8 |
| 18 | Slow whoop, NFPA |  | 185 | 122 | 577 | 116,5 |
| 22 | Whoop, Australia AS1670, ISO8201 |  | 166 | 110 | 512 | 118,2 |
| 23 | Siren |  | 275 | 167 | 817 | 119,9 |
| 24 | Siren |  | 165 | 157 | 810 | 119,7 |
| 25 | Siren |  | 235 | 160 | 762 | 117,7 |
| 26 | Industrial alarm (Germany) |  | 227 | 150 | 725 | 117,6 |
| 27 | Sweeping |  | 271 | 164 | 830 | 117,9 |
| 29 | Sweeping (fast) |  | 275 | 166 | 824 | 115,2 |
| 30 | Sweeping |  | 275 | 165 | 825 | 116,3 |
| 31 | Sweeping, France NF C 48-265 |  | 265 | 165 | 806 | 119,6 |
| 33 | Sweeping, UK BS5839-1 (medium sweep) |  | 255 | 160 | 789 | 117,6 |
| 34 | Sweeping (fast) |  | 250 | 157 | 770 | 115,6 |

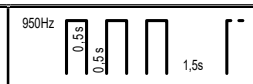
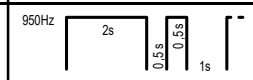
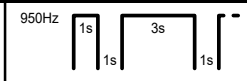
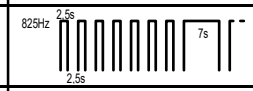
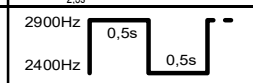
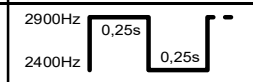
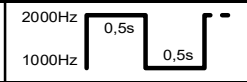
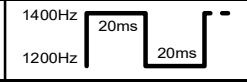
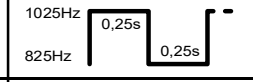
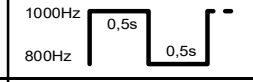
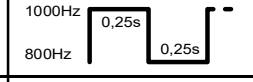
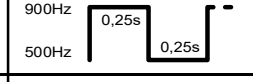
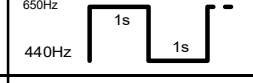
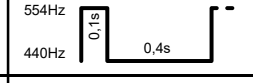
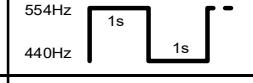
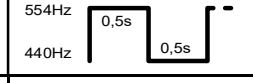
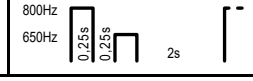
☐Töne nach EN54-3 / *Tone according to EN54-3*

| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 115V AC | 230V AC | 24V AC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| | | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 35 | Sweeping, UK BS5839-1 (fast sweep) |   | 255 | 159 | 775 | 116,1 |
| 36 | Sweeping |   | 255 | 160 | 783 | 119,4 |
| 43 | Sweeping |   | 253 | 156 | 758 | 119,8 |
| 44 | Sweeping, IMO 3d, Germany KTA3901 evacuation |   | 247 | 155 | 758 | 119,5 |
| 45 | Sweeping |   | 248 | 157 | 762 | 119,9 |
| 46 | Sweeping, Finland General Alarm |   | 255 | 162 | 788 | 119,5 |
| 52 | Continuous |   | 269 | 165 | 828 | 117,2 |
| 53 | Continuous |   | 267 | 161 | 813 | 119,9 |
| 54 | Continuous, Finland All Clear |   | 278 | 162 | 825 | 117,1 |
| 55 | Continuous |   | 270 | 162 | 790 | 118 |
| 56 | Continuous, PFEER (Gasalarm) |   | 230 | 150 | 745 | 115,2 |
| 57 | Continuous, UK BS5839-1 |   | 265 | 158 | 800 | 113,1 |
| 59 | Continuous |   | 268 | 168 | 845 | 113,8 |
| 60 | Continuous |   | 260 | 162 | 783 | 115,3 |
| 61 | Continuous |   | 235 | 150 | 738 | 113,8 |
| 63 | Continuous |   | 220 | 145 | 691 | 116,1 |
| 65 | Continuous, Sweden SS031711 (All Clear) |   | 265 | 161 | 816 | 112,9 |
| 66 | Continuous |   | 260 | 159 | 812 | 112,6 |
| 67 | Continuous, Germany KTA3901 (All Clear) |   | 250 | 156 | 776 | 111,5 |
| 68 | Continuous |   | 262 | 166 | 825 | 108 |

☐Töne nach EN54-3 / *Tone according to EN54-3*

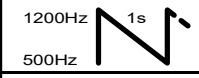
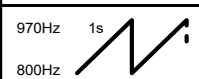
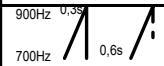
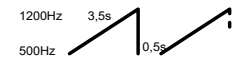
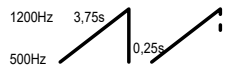
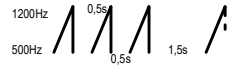
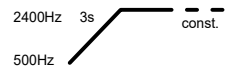
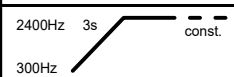
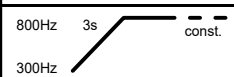
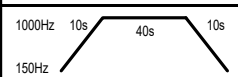
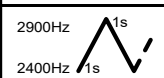
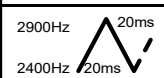
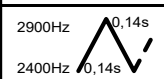
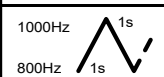
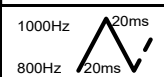
| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 115V AC | 230V AC | 24V AC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| | | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 69 | Continuous |  | 280 | 172 | 879 | 108 |
| 71 | Continuous |  | 275 | 169 | 864 | 109,8 |
| 77 | Intermittent |  | 205 | 123 | 612 | 117,6 |
| 82 | Intermittent, PFEER (General Alarm), UK BS5839-1 (Back-up Alarm) |  | 180 | 112 | 532 | 115,5 |
| 83 | Intermittent, PFEER (General Alarm) |  | 180 | 112 | 538 | 115,5 |
| 88 | Intermittent |  | 195 | 120 | 586 | 112,8 |
| 90 | Intermittent |  | 158 | 106 | 480 | 117,6 |
| 91 | Intermittent |  | 188 | 117 | 546 | 117,6 |
| 92 | Intermittent |  | 110 | 72 | 320 | 117,5 |
| 93 | Intermittent (fast), electromechanical horn |  | 146 | 103 | 452 | 114,6 |
| 97 | Intermittent |  | 188 | 124 | 578 | 115,7 |
| 98 | Intermittent, Sweden SS 031711 (Imminent Danger) |  | 180 | 112 | 525 | 113 |
| 100 | Intermittent, Industrial Alarm (Germany) |  | 182 | 117 | 545 | 112,8 |
| 101 | Intermittent, Sweden SS031711 (Important Message (Pre Mess)) |  | 270 | 110 | 822 | 112,8 |
| 102 | Intermittent, Sweden SS031711 (Local Warning) |  | 195 | 120 | 587 | 113,3 |
| 103 | Intermittent, Sweden SS031711 (Air Raid) |  | 215 | 110 | 645 | 113,4 |
| 104 | Intermittent, Sweden SS031711 (Imminent Danger) |  | 185 | 115 | 525 | 113,1 |
| 107 | Intermittent, Germany KTA3901 (evacuation) |  | 142 | 90 | 405 | 111,5 |
| 109 | Intermittent, Australia AS2220,AS1610, AS1670 |  | 205 | 125 | 639 | 106,5 |
| 110 | Intermittent (fast variable), Bell |  | 271 | 165 | 850 | 112,9 |
| 111 | Intermittent, ISO8201 (emergency evacuation signal), USA (evacuation) |  | 188 | 115 | 554 | 108,7 |

☐Töne nach EN54-3 / *Tone according to EN54-3*

| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 115V AC | 230V AC | 24V AC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| | | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 112 | Intermittent, ISO8201 (emergency evacuation signal) |  | 165 | 100 | 540 | 113,3 |
| 113 | Intermittent, ISO8201 (emergency evacuation signal) treble tone |  | 185 | 106 | 500 | 112,8 |
| 115 | Intermittent, IMO (Telefon Call) |  | 212 | 120 | 584 | 113 |
| 116 | Intermittent, IMO (abandon ship) |  | 220 | 135 | 674 | 112,8 |
| 117 | Intermittent, IMO SOLAS III/50 + SOLAS III/6.4 (General Alarm) |  | 200 | 116 | 527 | 116 |
| 122 | Alternating |  | 263 | 160 | 820 | 117,7 |
| 123 | Alternating |  | 270 | 165 | 800 | 117,7 |
| 124 | Alternating, Singapore |  | 250 | 156 | 769 | 119,9 |
| 125 | Alternating |  | 235 | 160 | 800 | 117 |
| 128 | Alternating |  | 240 | 150 | 740 | 116,9 |
| 130 | Alternating, UK BS5839-1(Fire Alarm) |  | 245 | 154 | 737 | 117,6 |
| 131 | Alternating, UK BS5839-1(Fire Alarm, Level crossing) |  | 240 | 154 | 750 | 117,7 |
| 135 | Alternating, UK BS5839-1 (Fire Alarm, increased urgency – Level crossing) |  | 250 | 152 | 744 | 117,2 |
| 142 | Alternating |  | 258 | 160 | 784 | 113,0 |
| 143 | Alternating, Germany Industrial Alarm |  | 263 | 162 | 838 | 112,2 |
| 144 | Alternating |  | 265 | 165 | 820 | 113,5 |
| 146 | Alternating, France NFS 32-001 (fire alarm) |  | 272 | 162 | 823 | 110,9 |
| 147 | Alternating, Sweden SS031711 (turn out) |  | 265 | 162 | 745 | 112,4 |
| 148 | Alternating, Sweden SS031711 (turn out) |  | 268 | 165 | 820 | 112,4 |
| 152 | Alternating-intermittent |  | 117 | 80 | 360 | 117,6 |

☐ Töne nach EN54-3 / *Tone according to EN54-3*

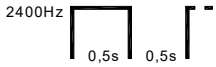
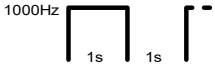
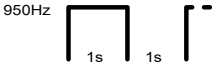
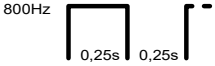
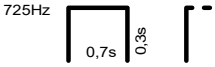
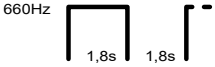
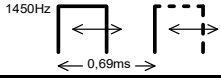
## **Schalldruckpegel und Stromaufnahme Schallgeber PA 20 DC bei voller Ausgangsspannung** *I sound pressure level and current drain of PA 20 DC-Sounders at full Output voltage*

| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 12V DC | 24V DC | 48V DC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| 1 | Silence | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 2 | Saw tooth, Germany DIN 33404-3 (emergency signal), PFEER PAPA |  | 368 | 748 | 435 | 119,8 |
| 9 | Slow whoop, fire alarm, UK BS5839-1 |  | 347 | 715 | 437 | 116,7 |
| 11 | Whoop (fast) |  | 339 | 706 | 432 | 115,5 |
| 13 | Whoop |  | 225 | 468 | 296 | 117,4 |
| 15 | Slow whoop, evacuation, Netherlands NEN 2575 |  | 360 | 681 | 422 | 120,5 |
| 16 | Slow whoop, evacuation Australia AS2220 |  | 368 | 731 | 432 | 120,8 |
| 18 | Slow whoop, NFPA |  | 249 | 515 | 327 | 117,5 |
| 22 | Whoop, Australia AS1670, ISO8201 |  | 221 | 499 | 291 | 119,2 |
| 23 | Siren |  | 401 | 790 | 462 | 122,2 |
| 24 | Siren |  | 382 | 741 | 442 | 120,7 |
| 25 | Siren |  | 385 | 745 | 444 | 118,7 |
| 26 | Industrial alarm (Germany) |  | 408 | 788 | 465 | 118,6 |
| 27 | Sweeping |  | 408 | 781 | 460 | 118,9 |
| 29 | Sweeping (fast) |  | 408 | 772 | 456 | 116,2 |
| 30 | Sweeping |  | 408 | 777 | 467 | 117,3 |
| 31 | Sweeping, France NF C 48-265 |  | 395 | 760 | 454 | 120,5 |
| 33 | Sweeping, UK BS5839-1 (medium sweep) |  | 369 | 732 | 434 | 118,6 |
| 34 | Sweeping (fast) |  | 378 | 740 | 443 | 116,6 |

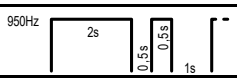
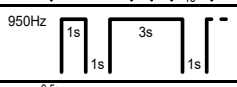
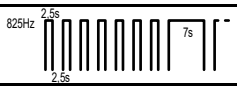
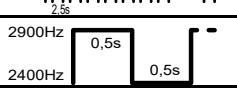
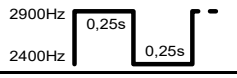
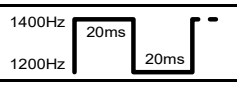
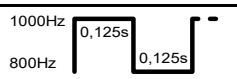
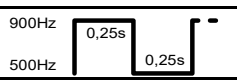
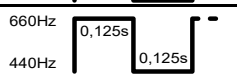
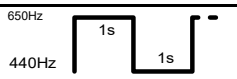
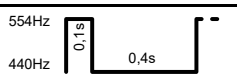
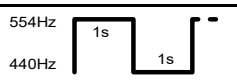
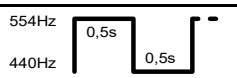
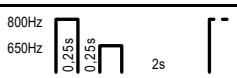
*Schallgeber, die mit weniger als 18V DC betrieben werden, erreichen nicht den, in der Tabelle angegebenen, Schallpegel!
*Devices which were biased with less than 18V DC will not reach the stated sound pressure level.

| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 12V DC | 24V DC | 48V DC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| | | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 35 | Sweeping, UK BS5839-1 (fast sweep) | 1000Hz 800Hz 0,14s 0,14s | 377 | 741 | 440 | 117,1 |
| 36 | Sweeping | 1500Hz 700Hz 3s 3s | 385 | 745 | 441 | 120,4 |
| 43 | Sweeping | 1200Hz 500Hz 3s 3s | 377 | 753 | 444 | 120,8 |
| 44 | Sweeping, IMO 3d, Germany KTA3901 evacuation | 1200Hz 500Hz 2s 2s | 383 | 766 | 470 | 120,5 |
| 45 | Sweeping | 1200Hz 500Hz 6s 6s | 371 | 745 | 447 | 121,2 |
| 46 | Sweeping, Finland General Alarm | 1500Hz 500Hz 14s 14s | 385 | 737 | 451 | 120,5 |
| 52 | Continuous | 2400Hz | 382 | 725 | 439 | 118,2 |
| 53 | Continuous | 2000Hz | 403 | 762 | 462 | 120,9 |
| 54 | Continuous, Finland All Clear | 1500Hz | 388 | 741 | 446 | 119,1 |
| 55 | Continuous | 1200Hz | 385 | 732 | 435 | 119 |
| 56 | Continuous, PFEER (Gasalarm) | 1000Hz | 410 | 770 | 462 | 116,2 |
| 57 | Continuous, UK BS5839-1 | 950Hz | 353 | 716 | 446 | 114,1 |
| 59 | Continuous | 880Hz | 330 | 661 | 399 | 114,8 |
| 60 | Continuous | 825Hz | 382 | 718 | 431 | 116,3 |
| 61 | Continuous | 800Hz | 414 | 773 | 471 | 114,8 |
| 63 | Continuous | 725Hz | 426 | 773 | 472 | 117,1 |
| 65 | Continuous, Sweden SS031711 (All Clear) | 660Hz | 358 | 715 | 431 | 113,9 |
| 66 | Continuous | 554Hz | 385 | 731 | 439 | 113,6 |
| 67 | Continuous, Germany KTA3901 (All Clear) | 500Hz | 419 | 770 | 472 | 112,5 |
| 68 | Continuous | 470Hz | 417 | 785 | 489 | 109 |

*Schallgeber, die mit weniger als 18V DC betrieben werden, erreichen nicht den, in der Tabelle angegebenen, Schallpegel!
*Devices which were biased with less than 18V DC will not reach the stated sound pressure level.

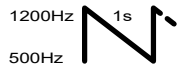
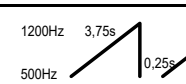
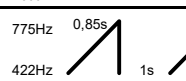
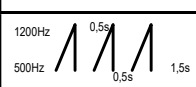
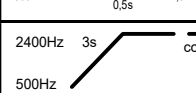
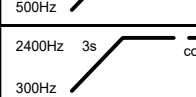
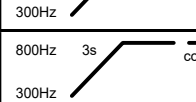
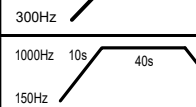
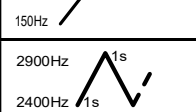
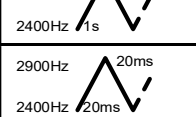
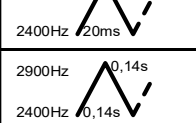
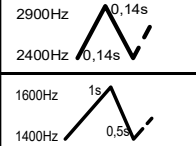
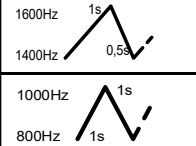
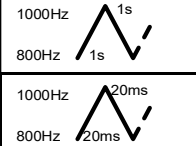
| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 12V DC | 24V DC | 48V DC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| | | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 69 | Continuous |  | 427 | 771 | 461 | 109 |
| 71 | Continuous |  | 450 | 788 | 470 | 110,8 |
| 77 | Intermittent |  | 270 | 539 | 337 | 118,6 |
| 82 | Intermittent, PFEER (General Alarm), UK BS5839-1 (Back-up Alarm) |  | 288 | 583 | 356 | 116,5 |
| 83 | Intermittent, PFEER (General Alarm) |  | 290 | 585 | 357 | 116,5 |
| 88 | Intermittent |  | 248 | 518 | 320 | 113,8 |
| 90 | Intermittent |  | 299 | 587 | 361 | 118,6 |
| 91 | Intermittent |  | 283 | 574 | 355 | 118,6 |
| 92 | Intermittent |  | 183 | 409 | 255 | 118,5 |
| 93 | Intermittent (fast), electromechanical horn |  | 216 | 487 | 321 | 115,6 |
| 97 | Intermittent |  | 356 | 681 | 417 | 116,7 |
| 98 | Intermittent, Sweden SS 031711 (Imminent Danger) |  | 293 | 582 | 365 | 114 |
| 100 | Intermittent, Industrial Alarm (Germany) |  | 277 | 602 | 334 | 113,8 |
| 101 | Intermittent, Sweden SS031711 (Important Message (Pre Mess)) |  | 354 | 720 | 436 | 113,8 |
| 102 | Intermittent, Sweden SS031711 (Local Warning) |  | 250 | 532 | 337 | 114,3 |
| 103 | Intermittent, Sweden SS031711 (Air Raid) |  | 275 | 502 | 300 | 114,4 |
| 104 | Intermittent, Sweden SS031711 (Imminent Danger) |  | 292 | 599 | 364 | 114,1 |
| 107 | Intermittent, Germany KTA3901 (evacuation) |  | 213 | 437 | 277 | 112,5 |
| 109 | Intermittent, Australia AS2220,AS1610, AS1670 |  | 312 | 610 | 377 | 107,5 |
| 110 | Intermittent (fast variable), Bell |  | 421 | 795 | 467 | 113,9 |

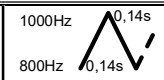
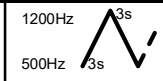
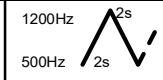
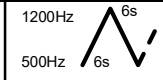
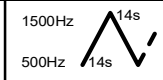
*Schallgeber, die mit weniger als 18V DC betrieben werden, erreichen nicht den, in der Tabelle angegebenen, Schallpegel!
*Devices which were biased with less than 18V DC will not reach the stated sound pressure level.

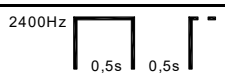
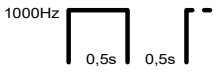
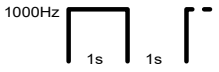
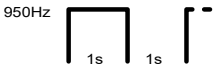
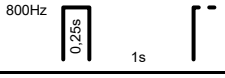
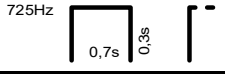
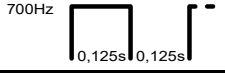
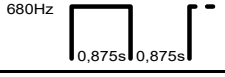
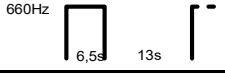
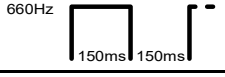
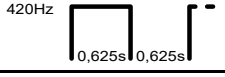
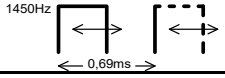
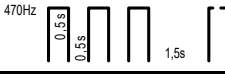
| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 12V DC | 24V DC | 48V DC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| | | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 111 | Intermittent, ISO8201 (emergency evacuation signal), USA (evacuation) |  | 248 | 507 | 344 | 109,7 |
| 112 | Intermittent, ISO8201 (emergency evacuation signal) |  | 205 | 457 | 264 | 114,3 |
| 113 | Intermittent, ISO8201 (emergency evacuation signal) treble tone |  | 248 | 479 | 294 | 113,8 |
| 115 | Intermittent, IMO (Telefon Call) |  | 351 | 585 | 441 | 114 |
| 116 | Intermittent, IMO (abandon ship) |  | 286 | 600 | 441 | 113,8 |
| 117 | Intermittent, IMO SOLAS III/50 + SOLAS III/6.4 (General Alarm) |  | 382 | 781 | 465 | 117 |
| 122 | Alternating |  | 391 | 752 | 482 | 118,7 |
| 123 | Alternating |  | 398 | 768 | 463 | 118,7 |
| 124 | Alternating, Singapore |  | 386 | 774 | 461 | 121,4 |
| 125 | Alternating |  | 371 | 736 | 467 | 118 |
| 128 | Alternating |  | 399 | 754 | 473 | 117,9 |
| 130 | Alternating, UK BS5839-1(Fire Alarm) |  | 405 | 759 | 472 | 118,6 |
| 131 | Alternating, UK BS5839-1(Fire Alarm, Level crossing) |  | 400 | 760 | 456 | 118,5 |
| 135 | Alternating, UK BS5839-1 (Fire Alarm, increased urgency – Level crossing) |  | 392 | 765 | 452 | 118,2 |
| 142 | Alternating |  | 367 | 721 | 435 | 114 |
| 143 | Alternating, Germany Industrial Alarm |  | 400 | 761 | 453 | 113,2 |
| 144 | Alternating |  | 387 | 749 | 450 | 114,8 |
| 146 | Alternating, France NFS 32-001 (fire alarm) |  | 423 | 773 | 462 | 111,9 |
| 147 | Alternating, Sweden SS031711 (turn out) |  | 416 | 784 | 486 | 113,4 |
| 148 | Alternating, Sweden SS031711 (turn out) |  | 349 | 757 | 458 | 113,4 |
| 152 | Alternating-intermittent |  | 152 | 375 | 205 | 118,6 |

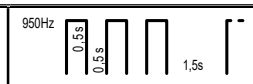
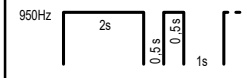
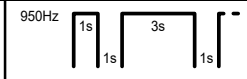
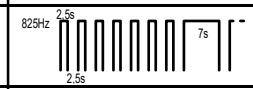
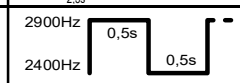
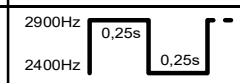
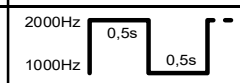
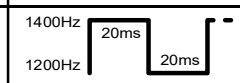
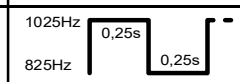
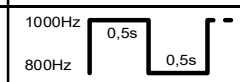
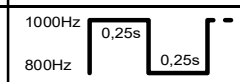
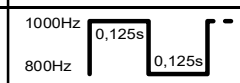
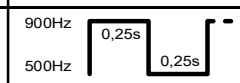
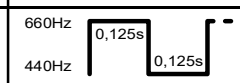
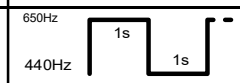
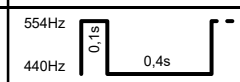
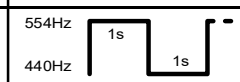
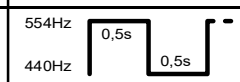
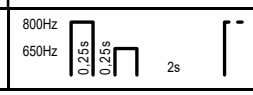
*Schallgeber, die mit weniger als 18V DC betrieben werden, erreichen nicht den, in der Tabelle angegebenen, Schallpegel!
*Devices which were biased with less than 18V DC will not reach the stated sound pressure level.

## **Schalldruckpegel und Stromaufnahme Schallgeber PA 20 AC bei voller Ausgangsspannung** *I sound pressure level and current drain of PA 20 AC-Sounders at full Output voltage*

| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 115V AC | 230V AC | 24V AC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| 1 | Silence | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 2 | Saw tooth, Germany DIN 33404-3 (emergency signal), PFEER PAPA |  | 300 | 180 | 1420 | 120,4 |
| 9 | Slow whoop, fire alarm, UK BS5839-1 |  | 285 | 175 | 1366 | 118,9 |
| 11 | Whoop (fast) |  | 285 | 175 | 1325 | 117,7 |
| 13 | Whoop |  | 205 | 141 | 943 | 119,6 |
| 15 | Slow whoop, evacuation, Netherlands NEN 2575 |  | 278 | 181 | 1376 | 122,7 |
| 16 | Slow whoop, evacuation Australia AS2220 |  | 288 | 186 | 1398 | 123 |
| 18 | Slow whoop, NFPA |  | 230 | 135 | 1011 | 119,7 |
| 22 | Whoop, Australia AS1670, ISO8201 |  | 202 | 125 | 980 | 121,4 |
| 23 | Siren |  | 310 | 192 | 1475 | 124,4 |
| 24 | Siren |  | 297 | 184 | 1400 | 122,9 |
| 25 | Siren |  | 310 | 186 | 1420 | 120,9 |
| 26 | Industrial alarm (Germany) |  | 317 | 195 | 1458 | 120,8 |
| 27 | Sweeping |  | 310 | 197 | 1460 | 121,1 |
| 29 | Sweeping (fast) |  | 310 | 192 | 1445 | 118,4 |
| 30 | Sweeping |  | 315 | 191 | 1474 | 119,5 |
| 31 | Sweeping, France NF C 48-265 |  | 306 | 188 | 1428 | 121,5 |
| 33 | Sweeping, UK BS5839-1 (medium sweep) |  | 298 | 181 | 1389 | 120,8 |
| 34 | Sweeping (fast) |  | 315 | 184 | 1413 | 118,8 |

| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 115V AC | 230V AC | 24V AC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| | | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 35 | Sweeping, UK BS5839-1 (fast sweep) |   | 298 | 183 | 1405 | 119,3 |
| 36 | Sweeping |   | 301 | 190 | 1379 | 122,6 |
| 43 | Sweeping |   | 302 | 185 | 1394 | 123 |
| 44 | Sweeping, IMO 3d, Germany KTA3901 evacuation |   | 303 | 185 | 1405 | 122,7 |
| 45 | Sweeping |   | 299 | 187 | 1382 | 123,4 |
| 46 | Sweeping, Finland General Alarm |   | 295 | 185 | 1397 | 122,7 |
| 52 | Continuous |   | 304 | 192 | 1400 | 120,4 |
| 53 | Continuous |   | 310 | 195 | 1425 | 121,9 |
| 54 | Continuous, Finland All Clear |   | 310 | 192 | 1428 | 119,8 |
| 55 | Continuous |   | 302 | 184 | 1397 | 121,2 |
| 56 | Continuous, PFEER (Gasalarm) |   | 325 | 183 | 1460 | 118,4 |
| 57 | Continuous, UK BS5839-1 |   | 303 | 184 | 1377 | 116,3 |
| 59 | Continuous |   | 279 | 167 | 1276 | 117,0 |
| 60 | Continuous |   | 303 | 184 | 1365 | 118,5 |
| 61 | Continuous |   | 310 | 192 | 1435 | 117 |
| 63 | Continuous |   | 308 | 190 | 1445 | 119,3 |
| 65 | Continuous, Sweden SS031711 (All Clear) |   | 302 | 184 | 1383 | 116,1 |
| 66 | Continuous |   | 298 | 181 | 1370 | 115,8 |
| 67 | Continuous, Germany KTA3901 (All Clear) |   | 311 | 186 | 1447 | 114,7 |
| 68 | Continuous |   | 313 | 193 | 1472 | 111,2 |

| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 115V AC | 230V AC | 24V AC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| | | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 69 | Continuous |  | 315 | 195 | 1466 | 111,2 |
| 71 | Continuous |  | 320 | 198 | 1489 | 113 |
| 77 | Intermittent |  | 226 | 140 | 1065 | 120,8 |
| 82 | Intermittent, PFEER (General Alarm), UK BS5839-1 (Back-up Alarm) |  | 253 | 146 | 1032 | 118,7 |
| 83 | Intermittent, PFEER (General Alarm) |  | 255 | 143 | 1172 | 118,7 |
| 88 | Intermittent |  | 220 | 136 | 1020 | 116 |
| 90 | Intermittent |  | 251 | 146 | 1131 | 120,8 |
| 91 | Intermittent |  | 230 | 141 | 1074 | 120,8 |
| 92 | Intermittent |  | 185 | 101 | 796 | 120,7 |
| 93 | Intermittent (fast), electromechanical horn |  | 183 | 120 | 888 | 117,8 |
| 97 | Intermittent |  | 277 | 167 | 1302 | 118,9 |
| 98 | Intermittent, Sweden SS 031711 (Imminent Danger) |  | 246 | 146 | 1094 | 116,2 |
| 100 | Intermittent, Industrial Alarm (Germany) |  | 230 | 140 | 1180 | 116 |
| 101 | Intermittent, Sweden SS031711 (Important Message (Pre Mess)) |  | 283 | 180 | 1460 | 116 |
| 102 | Intermittent, Sweden SS031711 (Local Warning) |  | 218 | 137 | 1024 | 116,5 |
| 103 | Intermittent, Sweden SS031711 (Air Raid) |  | 236 | 145 | 1120 | 116,6 |
| 104 | Intermittent, Sweden SS031711 (Imminent Danger) |  | 266 | 151 | 1109 | 116,3 |
| 107 | Intermittent, Germany KTA3901 (evacuation) |  | 189 | 110 | 800 | 114,7 |
| 109 | Intermittent, Australia AS2220,AS1610, AS1670 |  | 254 | 160 | 1219 | 109,7 |
| 110 | Intermittent (fast variable), Bell |  | 310 | 187 | 1438 | 116,1 |
| 111 | Intermittent, ISO8201 (emergency evacuation signal), USA (evacuation) |  | 216 | 126 | 965 | 111,9 |

| Grund-Ton-Nr. (♪) | Beschreibung / Description | | 115V AC | 230V AC | 24V AC | SPL (max.) +/- 3dB |
|---|---|---|---|---|---|---|
| | | | I rms/mA | I rms/mA | I rms/mA | dB(A) 1m |
| 112 | Intermittent, ISO8201 (emergency evacuation signal) |  | 213 | 125 | 911 | 116,5 |
| 113 | Intermittent, ISO8201 (emergency evacuation signal) treble tone |  | 225 | 129 | 1007 | 116 |
| 115 | Intermittent, IMO (Telefon Call) |  | 247 | 150 | 1153 | 116,2 |
| 116 | Intermittent, IMO (abandon ship) |  | 257 | 185 | 1154 | 116 |
| 117 | Intermittent, IMO SOLAS III/50 + SOLAS III/6.4 (General Alarm) |  | 305 | 195 | 1490 | 119,2 |
| 122 | Alternating |  | 302 | 187 | 1444 | 120,9 |
| 123 | Alternating |  | 310 | 192 | 1463 | 120,9 |
| 124 | Alternating, Singapore |  | 310 | 189 | 1449 | 123,6 |
| 125 | Alternating |  | 298 | 183 | 1363 | 120,2 |
| 128 | Alternating |  | 302 | 185 | 1410 | 120,1 |
| 130 | Alternating, UK BS5839-1(Fire Alarm) |  | 311 | 185 | 1420 | 120,8 |
| 131 | Alternating, UK BS5839-1(Fire Alarm, Level crossing) |  | 307 | 185 | 1403 | 119,5 |
| 135 | Alternating, UK BS5839-1 (Fire Alarm, increased urgency – Level crossing) |  | 306 | 187 | 1439 | 120,4 |
| 142 | Alternating |  | 292 | 178 | 1366 | 116,2 |
| 143 | Alternating, Germany Industrial Alarm |  | 309 | 191 | 1420 | 115,4 |
| 144 | Alternating |  | 310 | 190 | 1429 | 116,7 |
| 146 | Alternating, France NFS 32-001 (fire alarm) |  | 310 | 189 | 1471 | 114,1 |
| 147 | Alternating, Sweden SS031711 (turn out) |  | 305 | 186 | 1474 | 115,6 |
| 148 | Alternating, Sweden SS031711 (turn out) |  | 306 | 186 | 1447 | 115,6 |
| 152 | Alternating-intermittent |  | 140 | 85 | 632 | 120,8 |