PATROL SOUNDER/LED COMBINATION MAX. 107 dB(A) / 23 cd
PA L 5

Compact multifunction sounder/light combination with wide signaling area.

- Numerous tones selectable – A numerous selection of different tones for all kind of applications always ensure the best coverage.
- External tone selection – A maximum of four different tones can be switched by an external controller in just one device for different situations.
- Selectable signaling modes – Continuous steady on, blinking light or flashing light.
- Selectable blink & flash frequencies – Adaptable to all your applications - select the frequency your gadget requires and boost the perceptibility.
- Selectable colour (RGB version only) – Choose the colour you require. Stay flexible and keep your stock to a minimum!
- Safe, easy and rapid mounting.
- Economic efficiency – Due to an extremely high efficiency and good penetration of acoustical obstacles you can significantly reduce the number of devices.

RGB – multi colour LED (option)
IP 66 – protection system
NEMA 4/4X – protection system
IK08 – impact-proof housing
+55 °C / –40 °C – operating temperature
brightness adjustable
10 Years – warranty
EAC – EurAsian Conformity
UL – UL aprproval (pending)
M12 – connector (option)

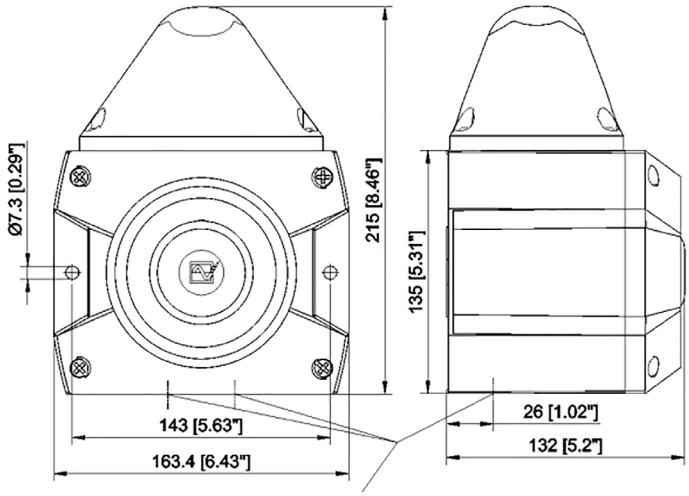
3D-COVERAGE PERFORMANCE DATA		PA L 5			
	VISUAL	Indicate	38.7 x 43.2 x 44.1 m	AUDIBLE 80 dB (A)	14.1 x 18.1 x 14.1 m
		Warn	17.2 x 19.2 x 19.6 m	85 dB (A)	7.9 x 10.2 x 7.9 m
		Alarm	8.6 x 9.6 x 9.8 m	90 dB (A)	4.4 x 5.7 x 4.4 m

To determine the exact signaling area for your needs, please use the online available Pfannenberg Sizing Software PSS.

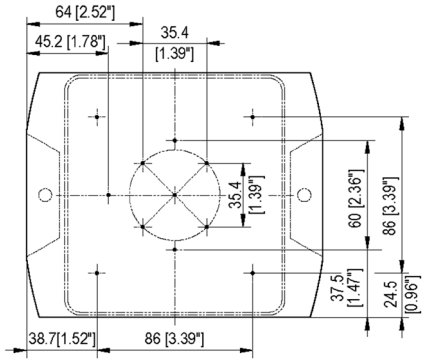
PRODUCT		PA L 5			
DATA					
Rated voltage		230 V AC	115 V AC	24 V AC	12-48 V DC
		50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	–
Operating range		195 – 253 V	95 – 127 V	21.6 – 26.4 V	10 – 57 V
Current consumption light (max)		36mA	51 mA	167 mA	120 mA @ 24 V DC
Current consumption sound (max)		16 mA	30 mA	150 mA	70 mA @ 24 V DC
Sound pressure level		max. 107 dB (A)			
Sound level reduction		max. -12 dB			
Alarm tones		80			
Light alternation frequency		blinking light 1 Hz / 2 Hz I flashing light 0.1 Hz / 0.5 Hz / 0.75 Hz / 1 Hz / 2 Hz			
Light source		single colour: two high output LED / RGB: one high output LED			
Light intensity (DIN 5037) [1]		23 cd (reducible)			
Colour of RGB LED					
Max. viewing distance		111 m			
Operating temperature		–40 °C ... +55 °C			
Storage temperature		–40 °C ... +70 °C			
Installation position		any			
Degree of protection		IP 66 (EN 60529), NEMA TYPE 4/4X, IK 08 (EN 50102)			
Service life of the light source		≥50,000 hrs			
Material	lens	- RGB) polycarbonate (PC)			
	housing	PC / ABS blend			
Cable entry		4 x M20 pre-embossed			
Connecting terminal		0.14 - 2.5 mm² fine stranded			
Weight		DC: 800 g / AC: 980 g			

[1] with a clear lens

DIMENSIONS



M20 cutout prepared



Drilling pattern inside the housing

ARTICLE NO.		PA L 5	
HOUSING COLOUR	LIGHT / LENS COLOUR	230 V AC	12-48 V DC
●	● / ○	23353108055	23353638055
●	●	23353103055	23353633055
●	●	23353104055	23353634055
●	●	23353105055	23353635055
●	●	23353106055	23353636055

Article numbers for other colours and voltages on request.

OPTIONS / ACCESORIES	
Sealing plug, 4-pack	28300000002
Spare locking bolt, 4-pack	28912000000
Surface seal	28300000005

Version with M12 connection on request

CONFORMITY TO STANDARDS

The acoustic parameters conform to the European standard DIN EN ISO 7731:
"Ergonomic – alarms for public areas and workplaces – acoustic alarms".

The requirement for an acoustic alarm signal can be found in the harmonised standards:
EN 60204-1 Electrical equipment of machines
EN 60825-1 Radiation safety of laser devices, identical to IEC 825 and DIN-VDE 0837

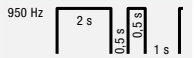
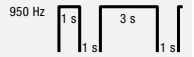
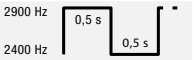
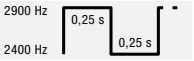
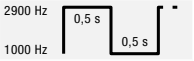
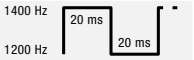
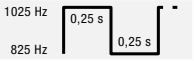
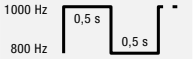
The visual characteristics of LED lights conform to the European standard DIN EN 842; **"Machine safety – visual alarm signals".**
Requirements contained in the DIN EN 981 standard; **"Machine safety – system of acoustic and visual alarm and information signals",** can be fulfilled.

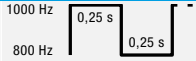
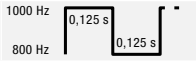
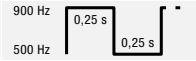
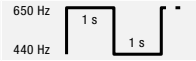
The colours "red" for the emergency signal and "yellow" for the warning signal conform to the requirements of IEC 73 / DIN EN 60073 / VDE 0199; **"Coding of display devices and control elements using colours and supplementary means".**
References to visual alarm devices can be found in the following standards:
EN 60825-1 Radiation safety of laser devices, identical to IEC 825 and DIN-VDE 0837
DIN EN 54 Fire alarm systems
DIN 54113-2 Radiation protection regulations for the technical operation of X-ray equipment up to 500 kV

TONE TABLE

NO.	DESCRIPTION
1	no tone
2	Sawtooth, DIN tone 33404-3 Germany (emergency signal), PFEER PTAP
9	Slow whoop, fire alarm, UK BS5839-1
11	Interrupted tone (fast)
13	Interrupted tone
15	Slow whoop, evacuation alarm Netherlands NEN 2575
16	Slow whoop, evacuation alarm Australia AS2220
18	Slow whoop, NFPA
22	Pulsating tone, Australien alert AS1670, ISO8201
23	Siren
24	Siren
25	Siren
26	Siren, industrial alarm Germany
27	Sweeping
29	Sweeping (fast)
30	Sweeping
31	Sweeping, France NFC48-265
33	Sweeping (medium), UK BS5839-1
34	Sweeping (fast)
35	Sweeping (fast), UK BS5839-1
36	Sweeping
43	Sweeping
44	Sweeping, IMO 3d, Germany KTA3901 evacuation alarm
45	Sweeping
46	Sweeping, general alarm Finland
52	Continuous tone
53	Continuous tone
54	Continuous tone, Finland (all-clear signal)
55	Continuous tone, PFEER gas alarm
56	Continuous tone
57	Continuous tone, UK BS5839-1
59	Continuous tone
60	Continuous tone
61	Continuous tone
63	Continuous tone
65	Continuous tone, Sweden SS031711 (all-clear signal)
66	Continuous tone
67	Continuous tone, Germany KTA3901 (all-clear signal)
68	Continuous tone
69	Continuous tone
71	Continuous tone
77	Interrupted tone
82	Interrupted tone, PFEER (general alarm), UK BS5839-1 (back-up alarm)
83	Interrupted tone, PFEER (general alarm)
88	Interrupted tone
90	Interrupted tone
91	Interrupted tone
92	Interrupted tone
93	Interrupted tone (fast), Horn
97	Interrupted tone
98	Interrupted tone, Sweden SS031711 (emergency signal)
100	Interrupted tone, industrial alarm Germany
101	Interrupted tone, Sweden SS031711 (important message (pre-mess))
102	Interrupted tone, Sweden SS031711 (local warning)
103	Interrupted tone, Sweden SS031711 (air raid warning)
104	Interrupted tone, Sweden SS031711 (emergency signal)
107	Interrupted tone, Germany KTA3901 (evacuation alarm)
109	Interrupted tone, Australia AS2220, AS1610, AS1670
110	Interrupted tone, (fast variable), bell
111	Interrupted tone, ISO8201 (emergency evacuation signal), USA (evacuation alarm)
112	Interrupted tone, ISO8201 (emergency evacuation signal)
113	Interrupted tone, ISO8201 (emergency evacuation signal), sweeping

TONE TABLE

NO.	DESCRIPTION	
115	Interrupted tone, IMO (telephone call)	
116	Interrupted tone, IMO (leave ship)	
117	Interrupted tone, IMO SOLAS III/50 + SOLAS III/6.4 (general alarm)	
122	Alternating tone	
123	Alternating tone	
124	Alternating tone, Singapore	
125	Alternating tone	
128	Alternating tone	
130	Alternating tone, UK BS5839-1 (fire alarm)	

NO.	DESCRIPTION	
131	Alternating tone, UK BS5839-1 (fire alarm, railway crossing)	
135	Alternating tone, UK BS5839-1 (fire alarm, increased urgency – railway crossing)	
142	Alternating tone	
143	Alternating tone, industrial alarm Germany	
144	Alternating tone	
146	Alternating tone, France NFS 32-001 (fire alarm)	
147	Alternating tone, Sweden SS031711	
148	Alternating tone, Sweden SS031711	
152	Alternating tone (two tone chime)