

PATROL SOUNDERS 100/105 dB(A) PA 1 / PA 5



PATROL – the new generation of sounders.

Three dimensional innovation.

- Safe; an incorrect installation is virtually impossible.
- Easy; significantly shorter assembly and installation times.
- Economical; extremely high efficiency and good penetration of acoustical obstacles significantly reduce the required number of sounders.



reddot design award
winner 2013

protection system	impact-proof housing	operating temperature	acoustic penetration	external tone selection	24–48 V DC	24–48 V DC		warranty	

PRODUCT	PA 1				PA 5			
DATA								
Operating range	195–253 V	95–127 V	18–30 V	10–57 V	195–253 V	95–127 V	18–30 V	10–57 V
	AC 50 60 Hz			DC	AC 50 60 Hz			DC
Nominal current consumption ¹	9–15 mA	8–30 mA	59–120 mA	6–80 mA	9–15 mA	8–30 mA	59–120 mA	6–80 mA
Sound pressure level	100 dB(A)				105 dB(A)			
Sound level reduction	max. –12 dB via potentiometer							
Alarm tones	80 / 4 tones are externally selectable							
Operating temperature	–40 °C ... +55 °C							
Storage temperature	–40 °C ... +70 °C							
Relative humidity	90 %							
Protection system according to EN 6052	IP 66							
Protection class	II							
Duty cycle	100 %							
Material	PC / ABS blend similar to RAL 3000 (flame red) RAL 7035 (light grey) RAL 9003 (signal white)							
Cable entry	3x M20 M20 knock-outs on side, 1 knock-out on back				5x M20 knock-outs on side, 1 knock-out on back			
Integrated seal with cable entry	6–13 mm (feed-through grommet)							
Connecting terminals	2.5 mm ² fine wire with cable end sleeve, AWG 16							
Weight	405 g		270 g		778 g		643 g	

¹ Power consumption dependent on operating voltage.

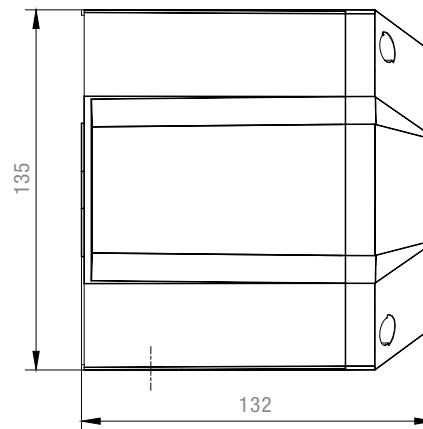
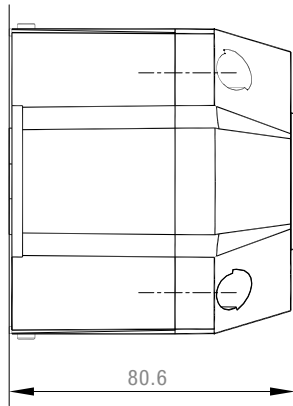
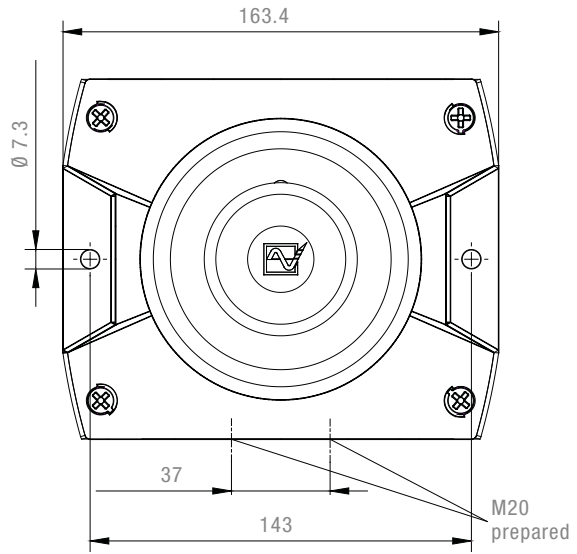
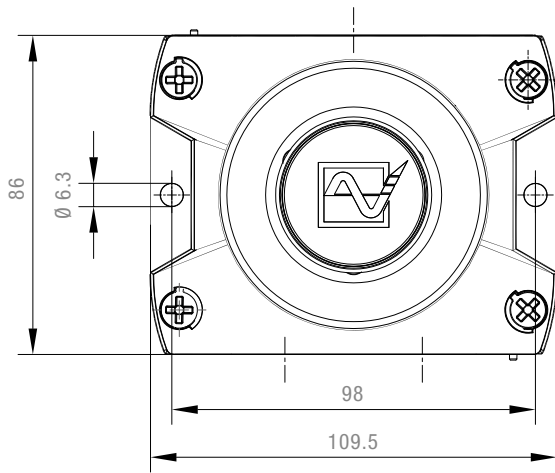
OPTIONS/ACCESSORIES

Enclosure fitting	Surface gasket	Tamper-proof sealing	Panel mounting kit						

DIMENSIONS

PA 1

PA 5



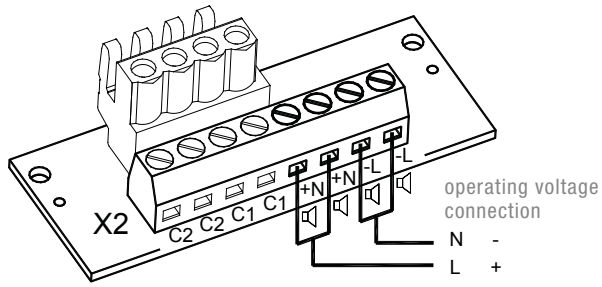
ARTICLE NO.		PA 1			PA 5		
VERSION	RATED VOLTAGE	230 V AC	115 V AC	10-57 V DC	230 V AC	115 V AC	10-57 V DC
Standard	housing red	23310100000	23310150000	23310630000	23350100000	23350150000	23350630000
GL/MED	housing red	23310100001	23310150001	23310630001	23350100001	23350150001	23350630001
Standard	housing grey	23310100055	23310150055	23310630055	23350100055	23350150055	23350630055
GL/MED	housing grey	23310100056	23310150056	23310630056	23350100056	23350150056	23350630056

Article numbers for other voltages and versions on request.

ARTICLE NO.		PA 1	PA 5
Enclosure fitting	For connection (daisy-chaining) of several sounders of the PATROL series.	28300000003	28300000002
Surface gasket	Sealing of the sounder installation surface when, e. g. cable entry is executed from the back.	28300000004	28300000005
Tamper-proof sealing (pack of 4)	Anti-tamper sealing for fasteners of the PATROL devices after installation in order to prevent manipulation of the devices.	28300000002	28300000002
Panel mount installation kit PATROL	The PATROL devices are also suitable for panel mounting. This kit consists of a plug connector for the electrical contact, as well as all installation materials.	28300000007	28300000008

TONE TABLE			
NO.	DESCRIPTION		
1	no tone		
2	Sawtooth, DIN tone 33404-3 Germany (emergency signal), PFEER PTAP	1200 Hz 500 Hz	
9	Slow whoop, fire alarm, UK BS5839-1	970 Hz 800 Hz	
11	Interrupted tone (fast)	970 Hz 800 Hz	
13	Interrupted tone	900 Hz 700 Hz	
15	Slow whoop, evacuation alarm Netherlands NEN 2575	1200 Hz 500 Hz	
16	Slow whoop, evacuation alarm Australia AS2220	1200 Hz 500 Hz	
18	Slow whoop, NFPA	775 Hz 422 Hz	
22	Pulsating tone, Australien alert AS1670, ISO8201	1200 Hz 500 Hz	
23	Siren	2400 Hz 500 Hz	
24	Siren	1200 Hz 300 Hz	
25	Siren	800 Hz 300 Hz	
26	Siren, industrial alarm Germany	1000 Hz 150 Hz	
27	Sweeping	2900 Hz 2400 Hz	
29	Sweeping (fast)	2900 Hz 2400 Hz	
30	Sweeping	2900 Hz 2400 Hz	
31	Sweeping, France NFC48-265	1600 Hz 1400 Hz	
33	Sweeping (medium), UK BS5839-1	1000 Hz 800 Hz	
34	Sweeping (fast)	1000 Hz 800 Hz	
35	Sweeping (fast), UK BS5839-1	1000 Hz 800 Hz	
36	Sweeping	1500 Hz 700 Hz	
43	Sweeping	1200 Hz 500 Hz	
44	Sweeping, IMO 3d, Germany KTA3901 evacuation alarm	1200 Hz 500 Hz	
45	Sweeping	1200 Hz 500 Hz	
46	Sweeping, general alarm Finland	1500 Hz 500 Hz	
52	Continuous tone	2400 Hz	
53	Continuous tone	2000 Hz	
54	Continuous tone, Finland (all-clear signal)	1500 Hz	
55	Continuous tone, PFEER gas alarm	1200 Hz	
56	Continuous tone	1000 Hz	
57	Continuous tone, UK BS5839-1	950 Hz	
59	Continuous tone	880 Hz	
60	Continuous tone	825 Hz	
61	Continuous tone	800 Hz	
63	Continuous tone	725 Hz	
65	Continuous tone, Sweden SS031711 (all-clear signal)	660 Hz	
66	Continuous tone	554 Hz	
67	Continuous tone, Germany KTA3901 (all-clear signal)	500 Hz	
68	Continuous tone	470 Hz	
69	Continuous tone	440 Hz	
71	Continuous tone	340 Hz	
77	Interrupted tone	2200 Hz	
82	Interrupted tone, PFEER (general alarm), UK BS5839-1 (back-up alarm)	1000 Hz	
83	Interrupted tone, PFEER (general alarm)	1000 Hz	
88	Interrupted tone	950 Hz	
90	Interrupted tone	825 Hz	
91	Interrupted tone	800 Hz	
92	Interrupted tone	800 Hz	
93	Interrupted tone (fast), Horn	800 Hz	
97	Interrupted tone	725 Hz	
98	Interrupted tone, Sweden SS031711 (emergency signal)	700 Hz	
100	Interrupted tone, industrial alarm Germany	680 Hz	
101	Interrupted tone, Sweden SS031711 (important message (pre-mess))	660 Hz	
102	Interrupted tone, Sweden SS031711 (local warning)	660 Hz	
103	Interrupted tone, Sweden SS031711 (air raid warning)	660 Hz	
104	Interrupted tone, Sweden SS031711 (emergency signal)	660 Hz	
107	Interrupted tone, Germany KTA3901 (evacuation alarm)	500 Hz	
109	Interrupted tone, Australia AS2220, AS1610, AS1670	420 Hz	
110	Interrupted tone, (fast variable), bell	1450 Hz	
111	Interrupted tone, ISO8201 (emergency evacuation signal), USA (evacuation alarm)	470 Hz	
112	Interrupted tone, ISO8201 (emergency evacuation signal)	950 Hz	
113	Interrupted tone, ISO8201 (emergency evacuation signal), sweeping	2850 Hz	

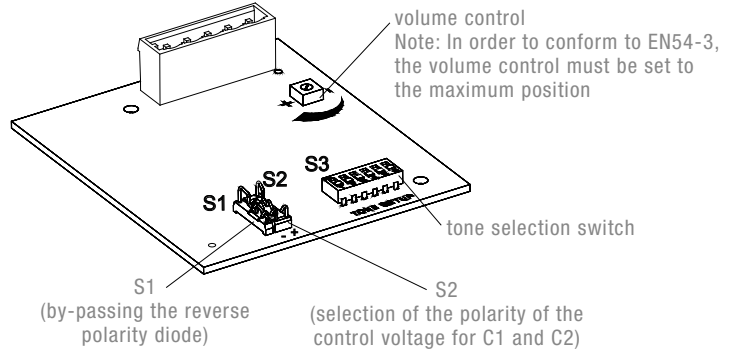
CONNECTION DIAGRAM



electrical connection and tone selection through external control of C1 and C2

operating voltage connection
 AC: N -
 L +
 DC: +
 -

Caution:
 Position of changeover switch S2 only at „-“ or „+“. „Open“ position is not permitted and leads to malfunction.

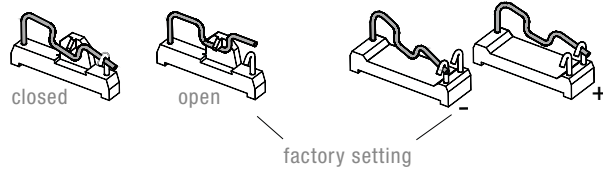


volume control
 Note: In order to conform to EN54-3, the volume control must be set to the maximum position

tone selection switch

S1
 (by-passing the reverse polarity diode)

S2
 (selection of the polarity of the control voltage for C1 and C2)



closed

open

factory setting

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