

PROTECT Ex SOUNDER 116 dB(A) PRO 10-Ex



- Excellent robustness – Cast aluminium housing guarantees long lasting use in tough applications
- Explosion proof – for potentially explosive areas in zone 2 (3G) and zone 22 (3D) as well as Class I / II / III Div2
- Outstanding perceptibility – Ideal radiation characteristics and high penetration of acoustical obstacles reduce the required number of devices
- Selectable tone – 80 different tones, 3 additional tones externally selectable
- Selectable sound pressure – Reduction of sound pressure level up to 30 dB, internally or externally selectable
- Pre- & main alarm – Preventing shock reactions by pre-alarming due to reduced sound pressure level
- Safe & easy handling – Designed with unlosable seal and screws to significantly shorten wiring and installation times



acoustic
penetration



protection
system



impact-proof
housing



operating
temperature



warranty



sound
adjustable



VdS



EN
54-3



UL



approval



NEMA
4/4X



ext. sound
reduction



DC version,
inrush current
limitation

3D-COVERAGE PERFORMANCE DATA



AUDIBLE

80 dB (A)
85 dB (A)
90 dB (A)

PRO 10-EX

51 x 49 x 24 m @ DIN tone
29 x 27 x 14 m @ DIN tone
16 x 15 x 8 m @ DIN tone

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

PRODUCT

PRO 10-Ex

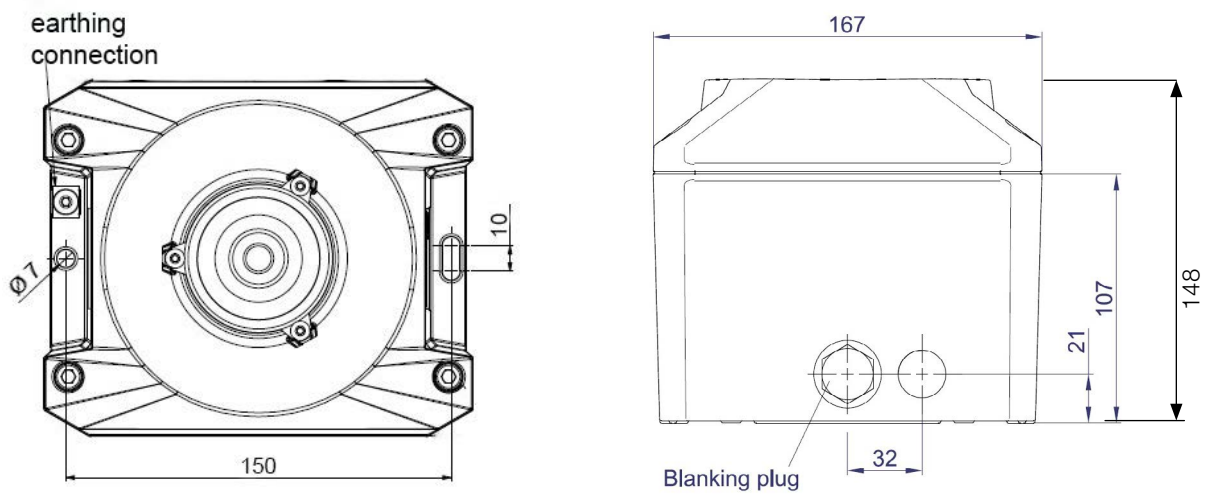
DATA

Rated voltage	115 / 230 V AC	12 - 48 V DC	24 - 48 V AC
Rated frequency	50 / 60 Hz		50 / 60 Hz
Operating range	95 - 265 V	10 - 60 V	18 - 53 V
Current consumption @ DIN tone	85 mA @ 230 V AC	355 mA @ 24 V DC	630 mA @ 24 V AC
Current consumption (max)	95 mA @ 230 V AC	400 mA @ 24 V DC	700 mA @ 24 V AC
Type of protection	Ex ec / Ex tc		
Explosion protection	See manual		
Category (area of use)	3G (Zone 2), 3D (Zone 22) Class I / II / III Div2		
Certificate of conformity	Pfannenberg PDG 24.0009 X UL		
Sound pressure level @ DIN tone	114 dB(A) @ 1m		
Sound pressure level max.	116 dB(A) @ 1m		
Sound level reduction	-4 dB / -10 dB / -16 dB / -22 dB / -26 dB / -30 dB		
Alarm tones	80 / 3 ext. selectable		
Sound time out	60 s / 15 min / 45 min / none		
Temperature class T	up to IIC T4 @ Ta -40°C...+55 °C; further details see certificate and manual		
Operating / storage temperature	-40 °C ... +55 °C / -40 °C ... +70 °C		
Duty cycle	100 %		
Degree of protection	IP66 / IP67 / NEMA 4/4x / IK09		
Material	Aluminum		
Clamping range of the cable fitting	7 - 13 mm		
Connecting terminals	stranded 2.5 mm ² , solid 4.0 mm ²		
Weight	2650 g	2680 g	2650 g

OPTIONS

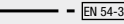
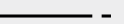
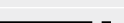
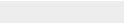
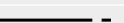
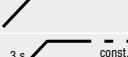
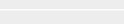
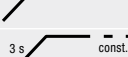
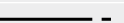
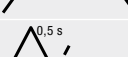
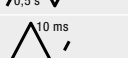
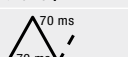
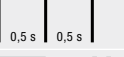
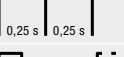
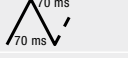
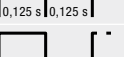
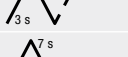
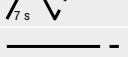
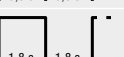
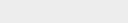
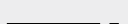
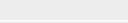
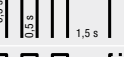
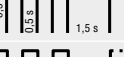
DNV	MED MER	sound +light
approval	approval	combi device

DIMENSIONS

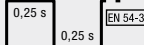
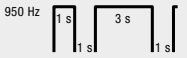
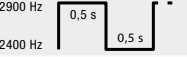
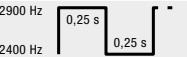
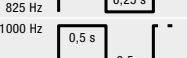


ARTICLE NO.	PRO 10-Ex		
VERSION	115 / 230 V AC	12 - 48 V DC	24 - 48 V AC
Ex	23150640007	23150630007	23150420007
Ex DNV/MED/MER	on request	on request	on request

Article numbers for other voltages and versions on request.

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

TONE TABLE

NO.	DESCRIPTION		NO.	DESCRIPTION	
115	Interrupted tone, IMO (telephone call)	950 Hz 	131	Alternating tone, UK BS5839-1 (fire alarm, railway crossing)	1000 Hz 
116	Interrupted tone, IMO (leave ship)	950 Hz 	135	Alternating tone, UK BS5839-1 (fire alarm, increased urgency – railway crossing)	1000 Hz 
117	Interrupted tone, IMO SOLAS III/50 + SOLAS III/6.4 (general alarm)	825 Hz 	142	Alternating tone	900 Hz 
122	Alternating tone	2900 Hz 	143	Alternating tone, industrial alarm Germany	660 Hz 
123	Alternating tone	2900 Hz 	144	Alternating tone	650 Hz 
124	Alternating tone, Singapore	2900 Hz 	146	Alternating tone, France NFS 32-001 (fire alarm)	554 Hz 
125	Alternating tone	1400 Hz 	147	Alternating tone, Sweden SS031711	554 Hz 
128	Alternating tone	1025 Hz 	148	Alternating tone, Sweden SS031711	554 Hz 
130	Alternating tone, UK BS5839-1 (fire alarm)	1000 Hz 	152	Alternating tone (two tone chime)	800 Hz 

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