

# Ex Sounder dEV 20

High-volume sounder with 32 different warn signals for applications in zones 1, 2, 21 and 22



## Overview

Potentially explosive areas often require the use of acoustical signals for warning, indicating or signalling purposes. The dEV20 Sounder is designed for exactly those occasions.

The dEV20 is activated by turning on the supply voltage. It is designed for continuous operation and available with different operating voltages.

The dEV20 Sounder consists of a pressure-resistant housing made of seawater-resistant aluminium conforming with ingress protection IP 66. Its sound conductor is made of impact-resistant plastics. The sounder is suitable for indoor and outdoor applications in zones 1, 2, 21 and 22. The terminal compartment is realized according to protection type "increased safety".

The two signalling stages can be set using a DIP switch. A selection of 32 signal tones is available for both stages.

Default settings for signal tones:

S0 = tone 24, S1 = tone 4

A signalling combination can be established using the provided stainless steel mounting plate with integrated junction box.

## Features

- Volume: up to approx. 115 dB(A)
- 32 tone variants, 2-stage alarm
- Adjustable volume (3 steps à 10 dB)
- Aluminium housing, Polyamid cap
- Protection type: II 2 G Ex d e IIB + H2 T6 Gb  
II 2 D Ex tb IIIC T85°C Db
- Ingress protection IP 66
- Terminal compartment "increased safety"

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Signal selection table

	0	Continuous 440 Hz	
	1	Continuous 554 Hz	
	2	Continuous 660 Hz	
	3	Continuous 800 Hz	
	4	Continuous 1000 Hz	
	5	Continuous 2400 Hz	
	6	Intermittent 420 Hz @ 0,800 Hz	(0,625 s on   0,625 s off)
	7	Intermittent 554 Hz @ 0,875 Hz	(0,571 s on   0,571 s off)
	8	Intermittent 660 Hz @ 3,333 Hz	(0,150 s on   0,150 s off)
	9	Intermittent 660 Hz @ 0,278 Hz	(1,800 s on   1,800 s off)
	10	Intermittent 800 Hz @ 0,800 Hz	(0,250 s on   1,000 s off)
	11	Intermittent 800 Hz @ 2,000 Hz	(0,250 s on   0,250 s off)
	12	Intermittent 1000 Hz @ 0,500 Hz	(1,000 s on   1,000 s off)
	13	Intermittent 1000 Hz @ 1,000 Hz	(0,500 s on   0,500 s off)
	14	Intermittent 2400 Hz @ 1,000 Hz	(0,500 s on   0,500 s off)
	15	Alternating 554/440 Hz @ 1,000 Hz	(0,500 s f1   0,500 s f2)
	16	Alternating 554/440 Hz @ 2,000 Hz	(0,100 s f1   0,400 s f2)
	17	Alternating 800/1000 Hz @ 4,000 Hz	(0,125 s f1   0,125 s f2)
	18	Alternating 800/1000 Hz @ 0,875 Hz	(0,571 s f1   0,571 s f2)
	19	Alternating 2400/2900 Hz @ 2,000 Hz	(0,250 s f1   0,250 s f2)
	20	Sweeping 500/1200 Hz @ 0,300 Hz	(1,667 s rise   1,667 s fall)
	21	Sweeping 800/1000 Hz @ 1,000 Hz	(0,500 s rise   0,500 s fall)
	22	Sweeping 800/1000 Hz @ 7,000 Hz	(0,071 s rise   0,071 s fall)
	23	Sweeping 800/1000 Hz @ 50,00 Hz	(0,010 s rise   0,010 s fall)
	24	Sweeping 1200/500 Hz @ 1,000 Hz	(1,000 s fall   0,000 s rise)
	25	Sweeping 1400/1600 Hz @ 0,667 Hz	(1,000 s rise   0,500 s fall)
	26	Sweeping 2400/2900 Hz @ 1,000 Hz	(0,500 s rise   0,500 s fall)
	27	Sweeping 2400/2900 Hz @ 7,000 Hz	(0,071 s rise   0,071 s fall)
	28	Sweeping 2400/2900 Hz @ 50,00 Hz	(0,010 s rise   0,010 s fall)
	29	Slow Whoop 500/1200 Hz @ 0,300 Hz	(2,833 s rise   0,000 s fall   0,500 s off)
	30	Slow Whoop 500/1200 Hz @ 0,267 Hz	(3,500 s rise   0,000 s fall   0,250 s off)
	31	Siren 830 Hz	(4,720 s rise   48,96 s hold   4,725 fall   10,00 s off)
			0 Maximum volume
			1 Attenuated volume -10 dB (A)
			2 Attenuated volume -20 dB (A)
			3 Attenuated volume -30 dB (A)

	1	2	3	4	5	6	7	8	9	10	11	12
S0 Sound			S1 Sound			Vol						

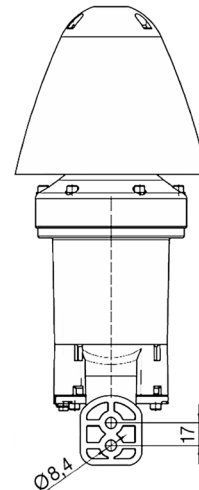
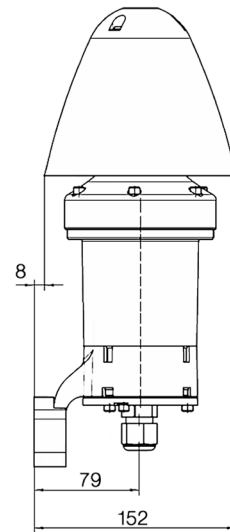
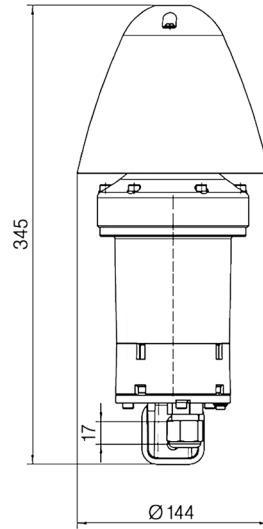
## General arrangement drawing (all dimensions in mm)

### Certification

Protection type	II 2 G Ex d e IIB + H2 T6 Gb II 2 D Ex tb IIIC T85°C Db
EC type examination certificate	PTB 12 ATEX 1014

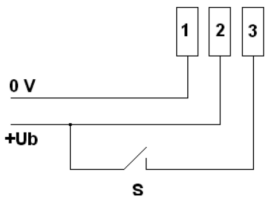
### Specifications

Housing	Copper-free, seawater-resistant aluminium
Cap	Polyamid (black)
Volume	Max. approx. 115 dB(A), can be lowered in 3 steps of 10 dB
Signal tones	32 per signalling stage
Alarm tone selection	Via DIP switch
Current consumption	93-460 mA (depending on voltage)
Power consumption	Max. 14 W
Ingress protection	IP 66 according to IEC 60529
Protection class	I
Cable glands	M20 x 1.5 (cable 5.5 to 13 mm)
Connection terminals	Terminal capacity: 2.5 mm <sup>2</sup> single-wire 1.5 mm <sup>2</sup> fine-wire
Operating conditions	Indoors and outdoors
Operating position	Vertical, cable gland facing downwards
Operating mode	Continuous operation
Temperature range	-50 °C to +60 °C
Dimensions	~ Ø 144 x 345 mm
Weight	2.8 kg

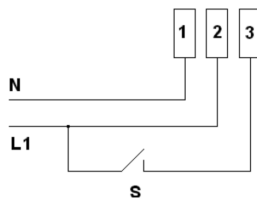


### Switching if signalling stages

DC sounder



AC sounder

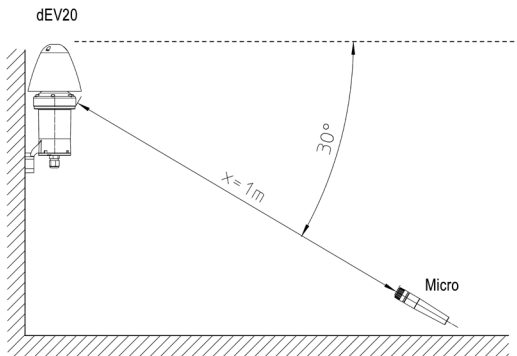


Connection terminals in terminal compartment

external wiring

1<sup>st</sup> signalling stage: switch S open  
2<sup>nd</sup> signalling stage: switch S closed

### Measuring method



### Ordering data

Type	Designation	Input voltage	Current consumption	Art. No.
dEV20	Ex Sounder	19.2-28.8 VDC	460 mA	FHF 215 910 13
dEV20	Ex Sounder	85-264 VAC	93 mA (230 V)	FHF 215 910 07

### Accessories

Mounting plate with integrated junction box	FHF 229 901 01
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