



# Explosion-proof Sounder dEV20

**Loud signalling device  
with 32 different signal tones  
for use in Zones 1 + 2 and 21 + 22**

- ▶ Sound pressure level: up to 115 dB(A)
- ▶ 32 signal tones, 2-stage alarm
- ▶ Volume adjustable (3 steps of 10 dB)
- ▶ Aluminium housing, Polyamide
- ▶ ATEX Approval
- ▶ IP 66
- ▶ II 2 G Ex d e IIB + H2 T6 Gb
- ▶ II 2 D Ex tb IIIC T80°C Db



## Application

Hazardous areas often require the use of acoustical signals for warning or information purposes. The ExII-sounder dEV20 offers both of these signalling features. The device is designed for continuous operation. If the supply voltage is turned on, the sounder is activated.

The ExII-sounder dEV20 is made to protection category IP66 and may be used indoors or outdoors.

## Design

The ExII-Sounder consists of a compression-proof housing with aluminium alloy and a sound channel of impact-resistant polyester. The terminal compartment is executed in the protection type „extended safety“.

The sounder dEV20 disposes of two signal levels. The signal tone for the first level is adjusted with the slide switches 1-5 (S0) according to the signal choice list. The signal tone for the second signal level is adjusted with the slide switches 6-10 (S1).

Delivery condition: S0 = Tone 24 ,  
S1 = Tone 4

To built up a signalling combination please use the mounting plate, made by V4A, with integrated junction box from the accessories.

## Warning in a chemical plant

The ExII-sounder dEV20 is made to protection category IP66 and may be used in zones 1 + 2 and 21 + 22.

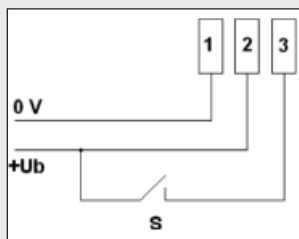


## Technical specifications

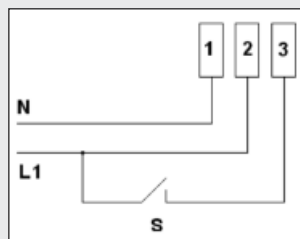
|                                 |  |
|---------------------------------|--|
| Housing                         | seawater resistant Aluminium,<br>sound protection hood Polyamide (black) |
| Protection degree               | IP 66  |
| Cable gland                     | M20 x 1.5 (cable 5.5 to 13 mm)   |
| Signal selection                | by DIP switches  |
| Volume                          | max. 115 dB(A) reducible in 3 levels<br>each by 10 dB                    |
| Signal tone                     | 32 for each signal level   |
| Current consumption             | 93 - 460 mA (dep. on voltage variation)                                  |
| Power consumption               | max. 14 W  |
| Clamping capacity               | to 2.5 mm <sup>2</sup>   |
| Housing degree of protection    | IP 66  |
| Protection class                | I  |
| EC type examination certificate | PTB 12 ATEX 1014   |
| Ambient temperature             | T6: -50 °C to +60 °C   |
| Type of protection              | II 2 G Ex d e IIB + H2 T6 Gb<br>II 2 D Ex tb IIIC T85°C Db               |
| Dimensions                      | ~ Ø 144 x 345 mm   |
| Weight                          | 2.8 kg   |

### Switching of the signal levels

#### Sounder for DC voltage



#### Sounder for AC voltage

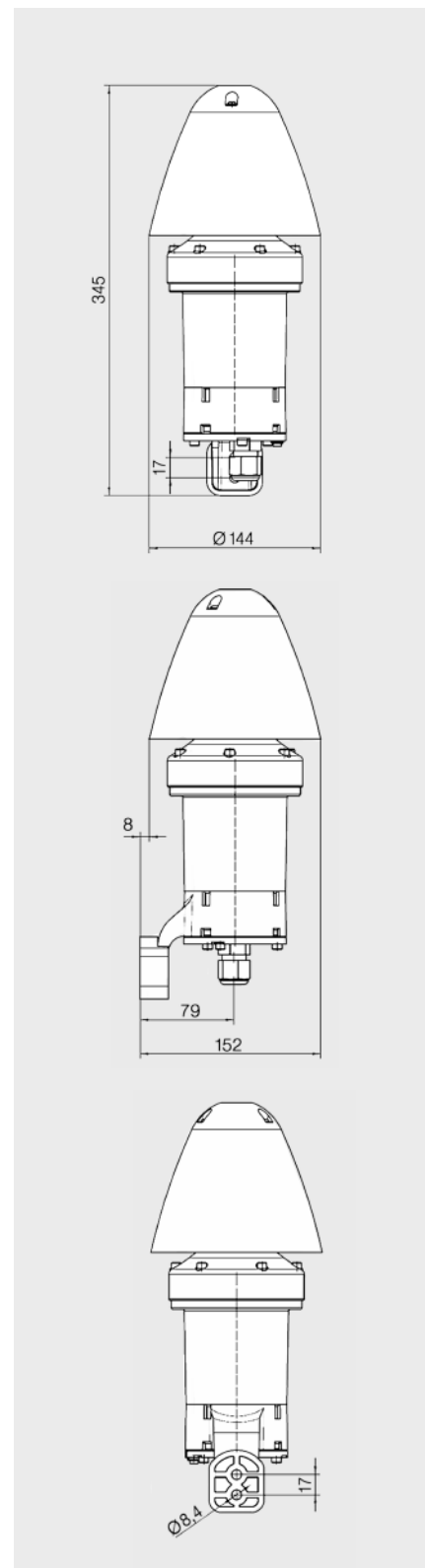
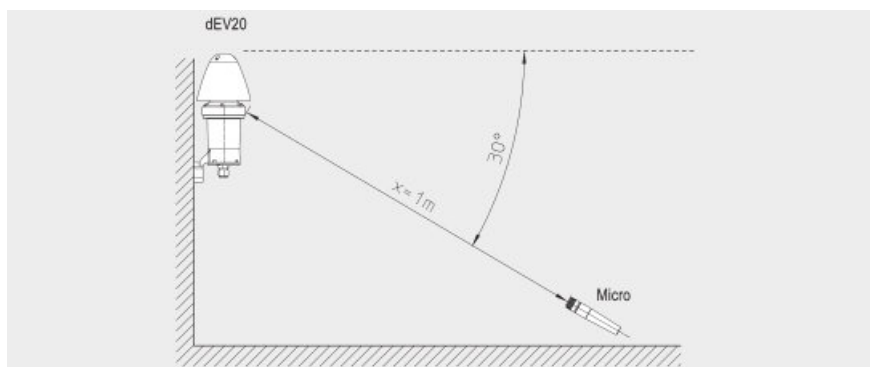


Connecting clamps  
in the terminal compart-  
ment

Extern circuitry

1. signal stage: switch S open
2. signal stage: switch S closed

### Measurement Method



## Order information

| Type  | Name       | Rated Voltage U <sub>e</sub> | Current consumption | Article no. |
|---|------------|------------------------------|---------------------|-------------|
| dEV20                                       | Ex-Sounder | 24 VDC                       | 460 mA              | 215 910 13  |
| dEV20                                       | Ex-Sounder | 85 - 265 VAC                 | 93 mA (230 V)       | 215 910 07  |
| <b>Accessories</b>                          |            |                              |                     |             |
| Mounting plate with integrated junction box |            |                              |                     | 229 901 01  |

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## Signal choice table

|  |  | Volume<br>dB(A)<br>approx. | Current-<br>consumption<br>mA |      |
|--|--|----------------------------|-------------------------------|------|
|  |  |                            | 230 V                         | 24 V |
| S0/S1 Sound  |  0 Continuous 440 Hz  | 100                        | 82                            | 456  |
|  |  1 Continuous 554 Hz  | 106                        | 80                            | 425  |
|  |  2 Continuous 660 Hz  | 107                        | 80                            | 428  |
|  |  3 Continuous 800 Hz  | 107                        | 81                            | 412  |
|  |  4 Continuous 1000 Hz   | 97                         | 73                            | 328  |
|  |  5 Continuous 2400 Hz   | 110                        | 77                            | 380  |
|  |  6 Intermittent 420 Hz @ 0,800 Hz (0,625 s on   0,625 s off)                        | 101                        | 86                            | 460  |
|  |  7 Intermittent 554 Hz @ 0,875 Hz (0,571 s on   0,571 s off)                        | 105                        | 80                            | 452  |
|  |  8 Intermittent 660 Hz @ 3,333 Hz (0,150 s on   0,150 s off)                        | 107                        | 82                            | 400  |
|  |  9 Intermittent 660 Hz @ 0,278 Hz (1,800 s on   1,800 s off)                        | 108                        | 82                            | 425  |
|  |  10 Intermittent 800 Hz @ 0,800 Hz (0,250 s on   1,000 s off)                       | 107                        | 82                            | 408  |
|  |  11 Intermittent 800 Hz @ 2,000 Hz (0,250 s on   0,250 s off)                       | 107                        | 83                            | 408  |
|  |  12 Intermittent 1000 Hz @ 0,500 Hz (1,000 s on   1,000 s off)                      | 97                         | 76                            | 328  |
|  |  13 Intermittent 1000 Hz @ 1,000 Hz (0,500 s on   0,500 s off)                      | 98                         | 76                            | 328  |
|  |  14 Intermittent 2400 Hz @ 1,000 Hz (0,500 s on   0,500 s off)                     | 110                        | 81                            | 380  |
|  |  15 Alternating 554,440 Hz @ 1,000 Hz (0,500 s f1   0,500 s f2)                   | 105                        | 90                            | 448  |
|  |  16 Alternating 554,440 Hz @ 2,000 Hz (0,100 s f1   0,400 s f2)                   | 103                        | 92                            | 450  |
|  |  17 Alternating 800/1000 Hz @ 4,000 Hz (0,125 s f1   0,125 s f2)                  | 106                        | 84                            | 396  |
|  |  18 Alternating 800/1000 Hz @ 0,875 Hz (0,571 s f1   0,571 s f2)                  | 107                        | 87                            | 408  |
|  |  19 Alternating 2400/2900 Hz @ 2,000 Hz (0,250 s f1   0,250 s f2)                 | 109                        | 83                            | 392  |
|  |  20 Sweeping 500/1200 Hz @ 0,300 Hz (1,667 s rise   1,667 s fall)                 | 107                        | 87                            | 452  |
|  |  21 Sweeping 800/1000 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall)                 | 106                        | 84                            | 396  |
|  |  22 Sweeping 800/1000 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall)                 | 104                        | 83                            | 388  |
|  |  23 Sweeping 800/1000 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall)                 | 103                        | 82                            | 384  |
|  |  24 Sweeping 1200/500 Hz @ 1,000 Hz (1,000 s fall   0,000 s rise)                 | 106                        | 86                            | 436  |
|  |  25 Sweeping 1400/1600 Hz @ 0,667 Hz (1,000 s rise   0,500 s fall)                | 115                        | 86                            | 408  |
|  |  26 Sweeping 2400/2900 Hz @ 1,000 Hz (0,500 s rise   0,500 s fall)                | 109                        | 80                            | 396  |
|  |  27 Sweeping 2400/2900 Hz @ 7,000 Hz (0,071 s rise   0,071 s fall)                | 107                        | 80                            | 388  |
|  |  28 Sweeping 2400/2900 Hz @ 50,00 Hz (0,010 s rise   0,010 s fall)                | 106                        | 81                            | 388  |
|  |  29 Slow Whoop 500/1200 Hz @ 0,300 Hz (2,833 s rise   0,000 s fall   0,500 s off) | 108                        | 88                            | 448  |
|  |  30 Slow Whoop 500/1200 Hz @ 0,267 Hz (3,500 s rise   0,000 s fall   0,250 s off) | 108                        | 86                            | 444  |
|  31 Siren 830 Hz (4,720 s rise   48,96 s hold   4,725 fall   10,00 s off) | 107  | 75                         | 328                           |      |

|   |                                |
|---|--------------------------------|
|  | 0 Maximum volume               |
|  | 1 Attenuated volume -10 dB (A) |
|  | 2 Attenuated volume -20 dB (A) |
|  | 3 Attenuated volume -30 dB (A) |

|   |          |
|---|----------|
|  | S0 Sound |
|  | S1 Sound |
|  | Vol      |