



Sounder BExS 110/120 d/e, BExDS 110/120 d/e



- 32 alarm sounds, PFEER/UK00A compliance
- 3 stages of alarm, negative and positive switching option on DC units
- automatic synchronisation
- volume control (except 12V DC)
- ATEX approval
- marine grade "LM6 LIGHT WEIGHT" housing
- ABS horn
- categories 2G and 3G (zones 1 and 2)
- also available as categories 2D and 3D (zones 21 and 22) for dust zones
- amendment 2; advanced approval/temperature range + 70 °C



Protective system



Operating temperature



Storage temperature



Relative humidity

Explosion protection:

Model	BExS 110 d/e, BExS 120 d/e	BExDS 110 d/e, BExDS 120 d/e
Protective system	"d" = IP 67; or "e" = IP 66	
Designation	Ⓜ II 2G EEx d IIC T4 / II 2G EEx de IIC T4 Ⓜ II 2G EEx d IIB T4 / II 2G EEx de IIB T4	Ⓜ II 2GD EEx d IIC T4 T100°C / II 2GD EEx de IIC T4 T100°C
Test authority	KEMA	KEMA
Certificate of conformity	99 ATEX 7906	99 ATEX 6312
Category (areas of application)	2G (zone 1) and 3G (zone 2)	2G (zone 1), 3G (zone 2), 2D (zone 21), 3D (zone 22)
Temperature class	IIC: T4 at - 50 °C to + 55 °C ambient temperature IIB: T4 at - 50 °C to + 70 °C ambient temperature	T4 at - 50 °C to + 55 °C ambient temperature

Acoustic data:

	BExS 110 d/e, BExDS 110 d/e	BExS 120 d/e, BExDS 120 d/e
Sound output	110 dB (A) at 1 metre ± 3 dB (A), tone 5 [12V DC version = 107 dB (A) ± 3 dB (A)]	117 dB (A) at 1 metre ± 3 dB (A) depending on kind of signal

Electrical data:

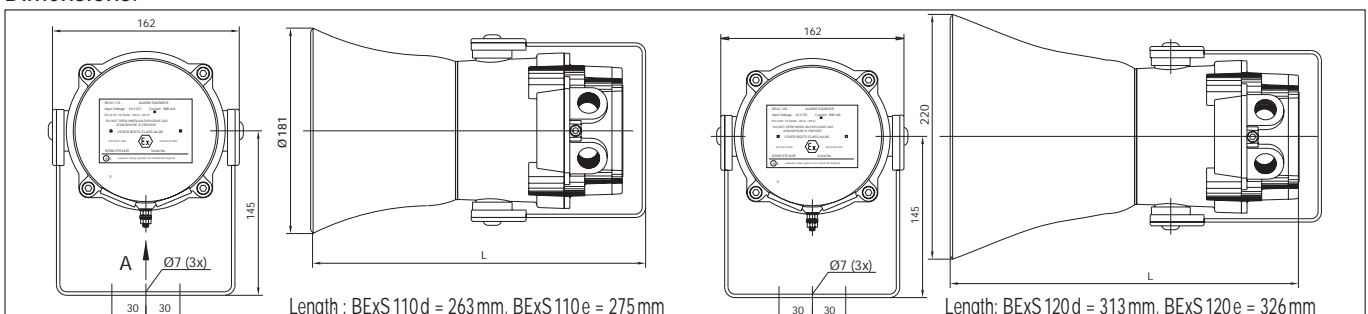
	AC		DC			AC		DC		
	230V ± 10%	115V ± 10%	48V ± 25%	24V ± 25%	12V ± 25%	230V ± 10%	115V ± 10%	48V ± 25%	24V ± 25%	12V ± 25%
Current consumption	56 mA	110 mA	130 mA	250 mA	195 mA	90 mA	180 mA	420 mA	800 mA	850 mA

Mechanical data:

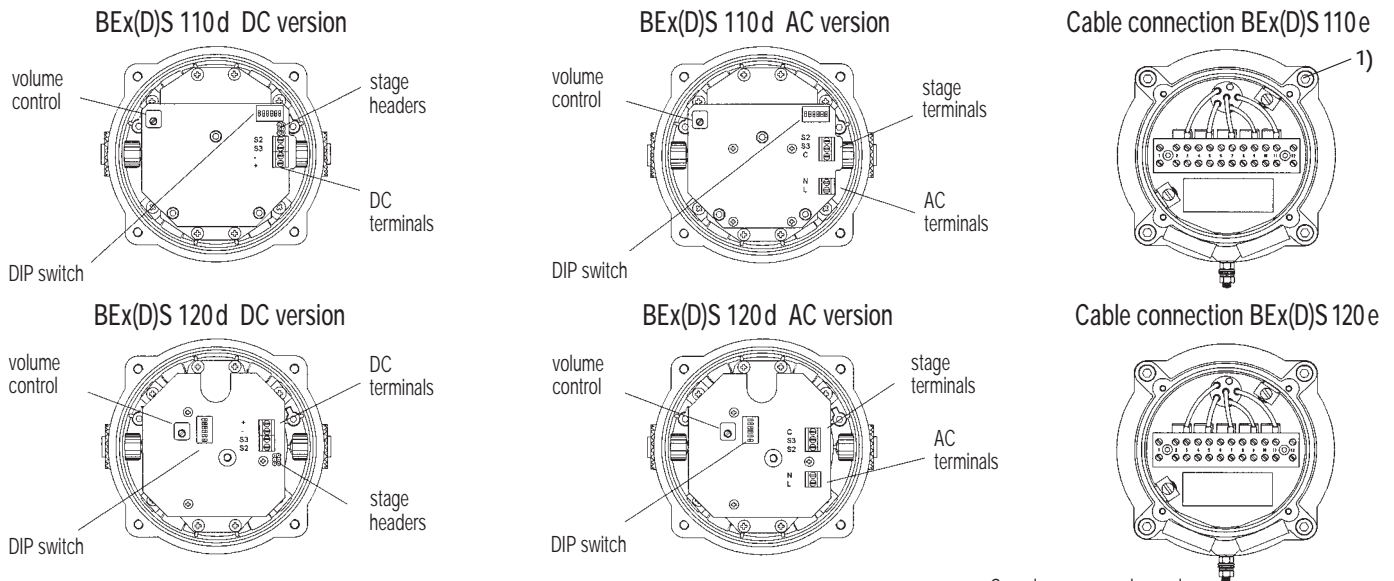
Cable entries*	2 x M20 ISO supplied with 1 blanking plug									
Terminals	EExd 1 x 4 mm ² or 2 x 2.5 mm ² / EExde 2 x 2.5 mm ²									
Housing	marine grade LM6									
Horn	flame retardant, similar to UL 94 V0 & 5VA FR ABS, Ⓜ II 2D antistatic ABS									
Colour	similar RAL 3000 (flame red), Ⓜ II 2D horn black									
Weight	DC version:	3.16 kg (Exd)	3.42 kg (Exde)				3.42 kg (Exd)	3.38 kg (Exde)		
	AC version:	3.42 kg (Exd)	3.68 kg (Exde)				3.88 kg (Exd)	4.14 kg (Exde)		

Dimensions:

* Ex-type threaded connection for cable not included in scope of delivery



Mechanical data:



Additional data BEx(D)S 110 / 120 d/e:

Operating temperature	IIc: - 50°C (- 58°F)... + 55°C (+ 131°F) / IIB: - 50°C (- 58°F)... + 70°C (+ 158°F)
Storage temperature	- 50°C (- 58 °F)... + 70°C (+ 158 °F)
Approvals	GOST

1) 4 bolts for flameproof enclosure

Sound pressure and sound adjustment in flameproof enclosure

Binder no.	DC version	AC version
2 and 3	not used	S3
4 and 5	+ ve	S2
6 and 7	- ve	C
8 and 9	S2	N
10 and 11	S3	L

Sound patterns selection table BEx(D)S 110 / 120 d/e:

Stage 1	Frequency Description	Stage 2 T2	Stage 3 T3	DIP Switch Settings				
				1	2	3	4	5
1	Continuous 1000 Hz, Toxic gas alarm	31	11	0	0	0	0	0
2	Alternating 800 / 1000 Hz at 0,25 s intervals	17	5	1	0	0	0	0
3	Slow Whoop 500 / 1200 Hz at 0,3 Hz with 0,5 s gap repeated	2	5	0	1	0	0	0
4	Sweeping 800 / 1000 Hz at 1 Hz	6	5	1	1	0	0	0
5	Continuous at 2400 Hz	3	27	0	0	1	0	0
6	Sweeping 2400 / 2900 Hz at 7 Hz	7	5	1	0	1	0	0
7	Sweeping 2400 / 2900 Hz at 1 Hz	10	5	0	1	1	0	0
8	Siren 500 / 1200 / 500 Hz at 0,3 Hz	2	5	1	1	1	0	0
9	Sawtooth 1200 / 500 Hz at 1 Hz	15	2	0	0	0	1	0
10	Alternating 2400 / 2900 Hz at 2 Hz	7	5	1	0	0	1	0
11	Intermittent 1000 Hz at 0.25 Hz, General Alarm	31	1	0	1	0	1	0
12	Alternating 800 / 1000 Hz at 0,875 Hz	4	5	1	1	0	1	0
13	Intermittent 2400 Hz at 1 Hz	15	5	0	0	1	1	0
14	Intermittent 800 Hz 0,25s on 1s off	4	5	1	0	1	1	0
15	Continuous at 800 Hz	2	5	0	1	1	1	0
16	Intermittent 660 Hz 150 mS on, 150 mS off	18	5	1	1	1	1	0
17	Alternating 544 Hz (100 mS) / 440 Hz (400 mS)	2	27	0	0	0	0	1
18	Intermittent 660 Hz 1,8s on, 1,8s off	2	5	1	0	0	0	1
19	1400 Hz to 1600 Hz sweep up over 1s - 1600 Hz to 1400 Hz sweep down over 0,5 s	2	5	0	1	0	0	1
20	Continuous 660 Hz	2	5	1	1	0	0	1
21	Alternating 554 / 440 Hz at 1 Hz	2	5	0	0	1	0	1
22	Intermittent 554 Hz at 0,875 Hz	2	5	1	0	1	0	1
23	800 Hz pulsing at 2 Hz	6	5	0	1	1	0	1
24	Sweeping 800 / 1000 Hz at 50 Hz	29	5	1	1	1	0	1
25	Sweeping 2400 / 2900 Hz at 50 Hz	29	5	0	0	0	1	1
26	Simulated bell sound	2	1	1	0	0	1	1
27	Continuous 554 Hz	26	5	0	1	0	1	1
28	Continuous 440 Hz	2	5	1	1	0	1	1
29	Sweeping 800 / 1000 Hz at 7 Hz	7	5	0	0	1	1	1
30	420 Hz repeating 0,625 s on, 0,625 s off, Australian alert signal	32	5	1	0	1	1	1
31	1200 / 500 Hz at 1 Hz, Prepare to abandon platform	11	1	0	1	1	1	1
32	Sweeping 500 / 1200 Hz 3,75 s on, 0,25 s off 15 Hz, Australian evacuate	26	1	1	1	1	1	1

The sounders can be switched to stage 2 or stage 3. The sounds are selected by operation of a DIP switch on the pcba in the flameproof enclosure. Sound 2 is preset.