

# Ex Sounder DS10/5 3G/3D ATEX Gas and dust protection



- industrial sounder for most demanding applications. As proven for decades a 100 000 times over at sea. "If everything else fails, **that one** doesn't!" "Heavy duty, but nevertheless a lightweight!"
- the DS 10/5 sounders for ATEX applications are designed for acoustic alarm in potentially explosive workplaces designated as 3G (zone 2) and 3D areas (zone 22)
- **main characteristics:**
  - categorized for **gas and dust protection**
  - IP67 protection to ensure safe operation in the most extreme environments
  - choice of 32 different sound patterns
- **optional extras:**
  - 4-stage remote-controlled sound selection (options: TAS, TAV)
  - all sounds can be combined at your discretion under remote control (programming function)

<b>IP 67</b>	<b>+55 °C</b> <b>-25 °C</b>	<b>+70 °C</b> <b>-40 °C</b>	<b>90%</b>	<b>VdS</b> <b>G28609</b>
Protective system	Operating temperature	Storage temperature	Relative humidity	

## Explosion protection:

Model	DS 5	DS 10
Protective system	IP 67 (EN 60529)	
Designation	Ex II 3G Ex nA II T4 (all voltages except 24 V AC), Ex II 3G Ex nA II T3 (only 24 V AC) Ex II 3D Ex tD A22 IP 67 T135°C	
Category	3G (zone 2) and 3D (zone 22)	
Temperature class	T4 / T3 at - 25 °C ... + 55 °C	

## Acoustic data:

Model	DS 5	DS 10
Sound pressure level (SPL)	105 dB (A) ± 3 dB (A)	110 dB (A)* ± 3 dB (A)

\* 12 V DC = 106 dB (A)

## Electrical data: AC 50 Hz/60 Hz

Rated voltage	Electrical data	DS 5	DS 10
230V	Voltage range: Rated current:	195V...253V 0.03A	195V...253V 0.06A
115V	Voltage range: Rated current:	95V...127V 0.06A	95V...127V 0.12A
24V*	Voltage range: Rated current:	19V...29V 0.28A	19V...29V 0.42A

\* Temperature class T3

## DC

Rated voltage	Electrical data	DS 5	DS 10
12V	Voltage range: Rated current:	10V...15V 0.28A	10V...15V 0.30A
24V	Voltage range: Rated current:	19V...29V 0.28A	19V...29V 0.42A

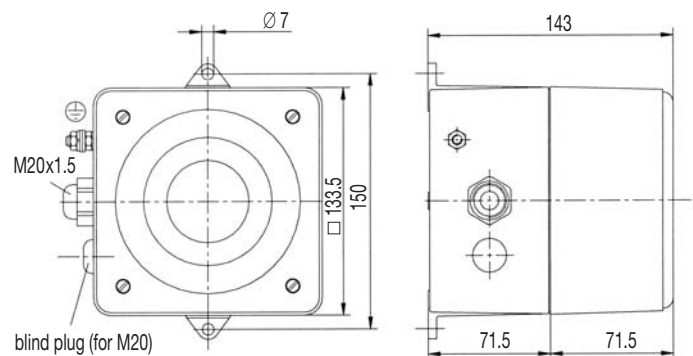
## Supplementary data:

Operating temperature	-25 °C (- 13 °F) ... +55 °C (+ 131 °F)
Storage temperature	-40 °C (- 40 °F) ... +70 °C (+ 158 °F)
Environmental protection class as per EN 54-3	type B (suitable for outside use)
Protection class	I
Approvals	VdS, Germanischer Lloyd, GOST

## Optional equipment:

Remote sound pattern control / 4-stage remote-controlled sound selection	TAV: Controlled through power supply (only for 12V and 24V DC)
	TAS: Through control voltage (for all voltages)

## Dimensions:


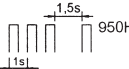

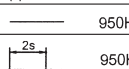

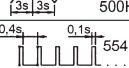
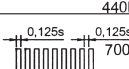
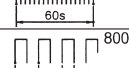
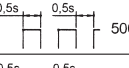
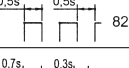
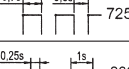



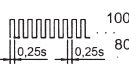
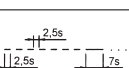
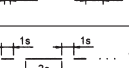

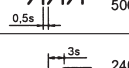

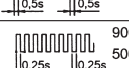
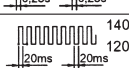
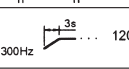

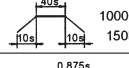
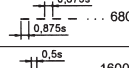
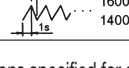
## Mechanical data:

Model	DS 5	DS 10
Percentage duty cycle	100%	
Cable gland	2 x M20 x 1,5 (1 x plastic cable gland, 1 x plug)	
Clamping area in cable gland	6-13 mm	
Cross section for terminal connection	min. 0,08 mm <sup>2</sup> ... max. 2,5 mm <sup>2</sup> AWG 28 - 12 (AWG12 THHN, THWN)	
Weight	DC: 1.95 kg / AC: 2.15 kg	
Installation orientation	do <b>not</b> install with mouth of horn pointing upwards	
Surface finish	epoxy-resin paint RAL 3000, flame red	
Material	cast aluminium GD-AI Si12 Cu	

We reserve the right to technical alterations. Subject to correction. 075000071

### Sound pattern table DS10/5 3G/3D

Sound no.	Encoding switch/ DIP switch						Description of sound patterns (factory setting = sound no. 1)	Stage 2	Stage 3	Stage 4
	1	2	3	4	5	6				
0							No sound	1	5	4
1					x		Emergency signal - DIN 33404/T3 - 	3	2	4
2				x			Emergency evacuation signal - ISO 8021 - 	1	4	3
3				x	x		Alternating sound 	1	2	4
4		x					Continuous sound 950Hz	1	3	5
5		x		x			Intermittent sound 950Hz 	1	4	3
6			x	x			Siren 1200Hz 500Hz 	1	4	9
7		x	x	x			French fire alarm - NFS32-001 - 554Hz 440Hz 	3	10	4
8	x						Swedish emergency signal - SS 031711 - 700Hz 	2	3	4
9	x			x			Horn 800Hz 	1	3	4
10	x	x					Continuous sound 500Hz	27	9	26
11	x	x	x				Continuous sound - Bayer - 725Hz	1	17	9
12	x	x					Continuous sound 825Hz	27	9	26
13	x	x	x				Continuous sound 1200Hz	1	5	3
14	x	x	x				Continuous sound 1500Hz	1	4	10
15	x	x	x	x			Intermittent sound 500Hz 	1	24	12
16	x						Intermittent sound 825Hz 	1	24	15
17	x				x		Intermittent sound - Bayer - 725Hz 	1	11	9
18	x				x		Intermittent sound 800Hz 	19	7	4

Sound no.	Encoding switch/ DIP switch						Description of sound patterns (factory setting = sound no. 1)	Stage 2	Stage 3	Stage 4
	1	2	3	4	5	6				
19	x				x	x	Alternating sound 	27	13	23
20	x		x				Intermittent sound IMO SOLAS III/50 + SOLAS III/6.4 	9	21	26
21	x		x		x		Intermittent sound - Abandon ship! - 950Hz 	20	9	26
22	x		x	x			Rising saw tooth sound with break 1200Hz 500Hz 	19	14	2
23	x		x	x	x		Siren 2400Hz 500Hz 	27	12	2
24	x	x					Alternating sound 1075Hz 825Hz 	1	16	12
25	x	x			x		Alternating sound 900Hz 500Hz 	1	14	5
26	x	x		x			Alternating sound 1400Hz 1200Hz 	4	9	27
27	x	x		x	x		Siren 1200Hz 300Hz 	13	23	19
28	x	x	x				Siren 1500Hz 700Hz 	7	10	4
29	x	x	x		x		Siren - Hoechst - 1000Hz 150Hz 	1	30	9
30	x	x	x	x			Intermittent sound 680Hz 	1	4	26
31	x	x	x	x	x		Siren - NF C 48-265 - 1600Hz 1400Hz 	3	14	4
32*	o	o	o	o	o	x	Selection of sound combinations specified for stages 2, 3 and 4			

### Declaration of manufacturer

We herewith declare that the explosion-proof alarm equipment with model designation

**DS 10 3G/3D, DS 5 3G/3D**

meet the requirements of the standards EN 60079-0 and EN 60079-15 as well as of the EN 61241-0 and EN 61241-1 in their latest version.

#### This declaration is issued in accordance with the following European Standards:

DIN EN 60079-0	Electrical apparatus for potentially explosive gas atmospheres - General requirements
DIN EN 60079-15	Electrical apparatus for potentially explosive gas atmospheres - Type of protection "n"
DIN EN 61241-0	Electrical apparatus for use in the presence of combustible dust - General requirements
DIN EN 61241-1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"
DIN EN 61000-6-2	Electromagnetic compatibility (EMC), Generic standards: Immunity for industrial environments
DIN EN 61000-6-3	Electromagnetic compatibility (EMC), Generic standards: Emission standard for residential
DIN EN 60947-1	Low-voltage switchgear and controlgear - Part 1: General rules
DIN EN 60950-1	Information technology equipment
DIN EN 60529	Degrees of protection provided by enclosures (IP code)
DIN EN 54-3	Fire detection and fire alarm systems - Part 3: Fire alarm devices; Sounder
DIN EN 981	Safety of machinery - System of auditory and visual danger and information signals
DIN EN 50130-4	Electromagnetic compatibility; Product family standard: Immunity requirements for components of fire, intruder and social alarm systems
DIN EN 50262	Metric cable glands for electrical installations
DIN EN ISO 7731	Ergonomics - Danger signals for public and work areas - Auditory danger signals
DIN IEC 60038	IEC standard voltages
DIN 33404/3	Danger signals for workplaces; auditory danger signals; unified emergency signal; technical requirements of safety, testing
UVV-BGV A3 (VBG4)	Electrical systems and equipment
9. GPSG	German law - covering equipment and product safety

Guideline 94/9/EG (ATEX 100a)

DIN EN 60079-0
DIN EN 60079-15
DIN EN 61241-0
DIN EN 61241-1