

Rev. A.1 10/2017

**DSE3-23 SERIES** 

Optical and acoustic fire alarm device

# DSE3-23 HW, DSE3-23 HQ

Optical and acoustic fire alarm device for indoor installation

### General features:

DSE3-23 HW and DSE3-23 HQ are devices designed for acoustic and optical notice in fire alarm systems.

All materials used to manufacture it comply with fire system requirements.

The alarm device has to be installed by qualified personnel only, respecting all installation standards such as recommended distances and height in order to get the maximum efficiency.

	TECHNICAL DATA
Coverage volume (wall) – CUBE light lens:	7 x 11 x 10 m (Height, Width, Distance)
Coverage volume (wall) – WIDE light lens:	4 x 18 x 7 m (Height, Width, Distance)
Category with WIDE lens or CUBE lens:	O (see coverage here above)
Nominal Voltage supply	24Vdc
Operating Voltage range	20Vdc - 30Vdc
Max Current consumption	130mA @Vdc=24V (DIP1=OFF 110mA, DIP1=ON 130mA)
Max Power consumption	2.6W
Max current for sound	20mA +/-5mA
Flash - Strobo frequency	0.6Hz or 1.0Hz
Main sound frequency (average)	<b>Sound 1</b> 850Hz
Main sound pattern	Sound 1 Decay from 500Hz to 1200Hz period 1,7s
Max level SPL @1 m	See Diagram 1
Available Patterns	6 available patterns: 2 modulated, 2 pulsed, 1 bitonal,1 continuous
Available alarm timings	4 available timings: Infinite, 3 minutes, 8 minutes, 15 minutes
Operating temperature	From -10 °C to +55°C
Timing	Programmable (see chart)
Command from the control panel	Polarity inversion
Enclosure protection degree	IP31C (Type A, for indoor use)
Size (HxLxW)	155x100x53mm
Weight	250 gr
Standards	EN54-3:2001 + A1:2002 + A2:2006, EN54-23:2010

### Installation:

1. Insert the head of a screwdriver in the slot as shown in Picture 2 and then press gently to lift the cover up a bit;

2. Take off the cover from the tracks;

3. Hang the sounder on the wall through the 4 fixing holes located on the sounder base (see Pict. 1) and using 4 pcs. of 5-mm wall plugs;

4. In case of system with external pipes, use an adapter to connect all cables;

5. Close the siren and fix the cover with the screw provided.



### NOTES ABOUT THE DEVICE:

A cable of 0,33 mm<sup>2</sup> of cross sectional (AVG 22) minimum, must be used.

The device must be installed by qualified staff only using proper tools and following the manufacturer's instruction provided in this installation sheet. Any other use rather than the one explained in this installation sheet can cause damaged! ATTENTION! The device must be powered using a control panel output featuring SELV tension and limited power.

### <u>DSE3-23 HW</u>

The device is classified as O. It is designed to cover a maximum volume with side A = 4 m, side B = 7 m, side C = 18 m (See Pict. 4).

It can be installed on a wall at 4 m of altitude or on a ceiling at h = 7 m maximum.

For wall installation, the device must be installed with the long side perpendicular to the floor and the strobe flashing unit looking downwards. Maximum installation height is 4 m, the illumination coverage will be 9 m on the right and 9 m on the left and 7 m on front.

For ceiling installation, the device must be installed with the long side perpendicular to the wall and the strobe flashing unit looking towards the space to be illuminated. Consider that the wall on the side without flash will be not illuminated. Maximum installation height is 7 m; the illumination coverage will be 4 m at the front and 9 m at the right and 9 m on the left.

Pict. 3: Coverage using WIDE-field lens



Pict. 4: Mount the long side of the device in perpendicular position with respect to the floor



Pict. 4bis: mount the long side of the device perpendicular with respect the wall of the corridor



### DSE3-23 HQ

The device is classified as O. It is designed to cover a maximum volume with side A = 7 m, side B = 10 m, side C = 11 m (See Pict. 6).

It can be installed on a wall at an altitude of 7 m or on a ceiling at h = 10 m maximum.

For wall installation, the device must be installed with the long side perpendicular to the floor and the strobe flashing unit looking downwards. Maximum installation height is 7 m, the illumination coverage will be 5,5 m on the right, 5,5 m on the left and 10 m on front.

For ceiling installation, the device must be installed with the long side perpendicular to the wall and the strobe flashing unit looking towards the space to be illuminated. Consider that the wall on the side without flash will be not illuminated. Maximum installation height is 10 m; the illumination coverage will be 7 m at the front, 5,5 m on the right and 5,5 m on the left.

Pict. 5: Coverage using CUBE-field lens



Pict. 6: Mount the long side of the device in perpendicular position with respect to the floor



Pict. 6bis: mount the long side of the device perpendicular with respect the wall of the room





### Sounds chart:

Terminal	DIP 2	Sound	Priority	Modulation	Modulation limits (Hz)
S1 (1,2 and 3,4)	OFF	Sound 1	1	DIN (continuous and decreasing)	500 - 1.200
S2 (5 and 6)	OFF	Sound 2	2	NFS32 (continuous and alternated)	440 – 554
S3 (8 and 9)	OFF	Sound 3	3	ISO8021 (fixed tone with pauses)	520
S1(1,2 and 3,4)	ON	Sound 4	1	BS modified (fixed tones alternated)	520-940
S2 (5 and 6)	ON	Sound 5	2	NEN2575 (increasing with pause)	500 - 1.200
S3 (8 and 9)	ON	Sound 6	3	Continuous	660

## <u>Diagram 1</u>

DSE3-23	HW/HQ					
лна			horiz	ontal		
DSE3-23 HW/HQ	<b>S1</b>	S2	<b>S</b> 3	<b>S</b> 4	S5	S6
-23	min	min	min	min	min	min
Ė	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
DS	@1m	@1m	@1m	@1m	@1m	@1m
15	75	73	77	75	75	72
45	77	77	75	73	77	72
75	81	80	79	79	82	79
105	81	79	81	80	82	78
135	77	74	75	77	78	75
165	75	76	74	75	76	73



DSE3-23	HW/HQ					
ŬHŎ			ver	tical		
нм/на	<b>S1</b>	S2	<b>S</b> 3	S4	S5	S6
DSE3-23 I	min dB(A) @1m	min dB(A) @1m	min dB(A) @1m	min dB(A) @1m	min dB(A) @1m	min dB(A) @1m
15	79	76	79	79	80	76
45	80	80	80	78	80	78
75	82	81	81	82	82	81
105	80	79	81	82	82	79
135	77	75	78	78	78	76
165	75	76	76	77	76	77



	CHART 1: DIPSWITCH setting	
DIP SWITCH	OFF	ON
DIP 1 – Flash frequency	0.6 Hz (consumption: 110mA )	1.0 Hz (consumption: 130mA ) SOUND NOT SYNCRONISED
DIP 2 – Sound patterns	From 1 to 3	From 4 to 6
DIP 3 - DIP 4 – alarm duration timer	See Chart 2	See Chart 2
DIP 5 – Sound Synchronism	Activated	Deactivated

	CHART 3: terminals connection
TERMINAL	Connection
S1 (1,2 and 3,4)	trigger for: sound 1 – sound 4
S2 (5 and 6)	trigger for: sound 2 – sound 5
SYNC (7)	Devices synchronism: panels and DSE3-23 sirens. Connect to the other SYNC or B terminals
S3 (8 and 9)	trigger for: sound 3 – sound 6

	CHART 2:	DIP 3 – DIP 4, selection of alarm sound duration
DIP3	DIP4	Acoustic alarm duration
OFF	OFF	INFINITE (DEFAULT, COMPLYING TO EN54-3)
ON	OFF	3 MINUTES (NOT COMPLYING TO EN54-3)
OFF	ON	8 MINUTES (NOT COMPLYING TO EN54-3)
ON	ON	15 MINUTES (NOT COMPLYING TO EN54-3)

VOLUME and ABSORBED CURRENT adjustment: Rotate trimmer P1 to adjust acoustic power

### Pict. 7: connectors/terminals/trimmer



+24V => 8 + i STAND ALARM I + ₽ i į **S1** +24V i 8 => +24V ALARM + <u>52</u> 8 SYNC CONTROL + 53 PANEL

Pict. 9: Series connection of more sounders and 2 sounds



Pict.10: Connection with negative control in case of 2 sounds CONNECTION NOT COMPLIANT TO EN54



### Pict. 8: END-OF-LINE connection in case of 2 sound

<b>CCC</b> 1293	
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DoP 1293 – CPR-0570	
EN54-3 EN54-23 DSE3-23 HW DSE3-23 HQ	
FIRE ALARM DEVICES – VISUAL AND ACOUSTIC ALARM DE Intended for use in fire detection and fire alarm systems in and arc TYPE A: for indoor use Other technical data: see supplier's technical dossier.	ound buildings
FIRE ALARM DEVICES – VISUAL AND ACOUSTIC ALARM DE Intended for use in fire detection and fire alarm systems in and arc TYPE A: for indoor use	ound buildings
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DISPOSAL: This product must be disposed of using the appropriate bins for electrical and electronic products. This product must not be placed in bins for collection of other waste types.

Dop available on web site www.notifier.it

### ATTENTION:

Please note that all installation indications here above must be carefully respected to prevent the device from loosing its standard compliance.

### Numero Assistenza Tecnica: 039-9301410

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