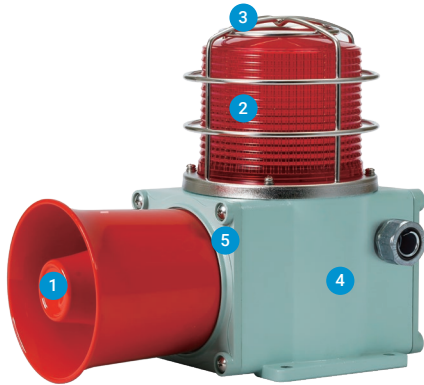


SHD / SHD2 Series

Warning light and electric horn combinations with excellent durability and perfectly enclosed structure, designed for vessels and heavy industry applications



PRODUCT SPECIFICATION

SHD | SHD2

Materials Lens-PC, Housing-Al, Protection cage-STS316L, Reflector-PC, Reflector-Heat resistant ABS

Ambient operating temperature
-20°C to +50°C, -30°C to +50°C

Protection rating IP66

Housing standard color MUNSELL No. 7.5BG 7/2

Cable entry 1/2" PF

- Warning light and electric horn combination models for vessels and heavy industries applications
- Aluminum housing and polycarbonate lens material provides excellent durability under seismic conditions
- Excellent hermetic structure that blocks water and dust
- Superior impact and shock resistance
- You can select a variety of sound and light sources (bulb, LED and xenon)
- Equipped with a wire guard
- Terminal box located inside the housing
- Can adjust sound volume and select sound pattern with the switches built inside the products

- 1** A variety of selectable warning sounds and sound messages
· You can convey specific information with a variety of 20 warning sounds and voice messages.

Sound	Pattern	Ch	Sound Tone
WS	5 Warning sounds	Ch1	Fire.A-ANG
		Ch2	Emergency WA-U(Yelp)
		Ch3	Ambulance PI-PO(Hi-How)
		Ch4	Machinery Fault
		Ch5	High Expansion
WP	5 Special warning sounds	Ch1	Fire.A-ANG
		Ch2	Abandon Alarm
		Ch3	Machinery Fault
		Ch4	High Expansion
		Ch5	7 Short Pl. / 1 Long
WM	5 Melodies	Ch1	Sweet Home
		Ch2	For Elise
		Ch3	Cuckoo's Waltz
		Ch4	Piano Sonata
		Ch5	Turkish March
WA	5 Alarms	Ch1	Beep Intermittent
		Ch2	Door Chime
		Ch3	Phone Ring
		Ch4	PI.PI.PI Short
		Ch5	Tripping Beat
WV	5 Customizable sound messages	Ch1- Ch5	Customized sound tones

- 2** Lens
· Polycarbonate lens material provides excellent impact resistance
- 3** Protection cage
· The durable wire guard is made of corrosion resistant stainless steel that prevents damage to the lens from external contact
· Materials: STS316L
- 4** Housing
· The special aluminum body housing features superior durability
· The housing is corrosion resistant from a special anodized surface treatment process
· Materials: Al
- 5** Fully enclosed structure
· The tightly sealed warning light structure is waterproof and dustproof
· Protection rating: IP66

A Variety of Selectable Light Source and Function Combinations

You can select from a variety of light sources for your work environment, condition, and purpose. Basic specifications are as follows.

- LED revolving type
- LED steady/flashing type
- xenon lamp strobe type
- Bulb revolving type

Customization

- LED Strobe type
- LED revolving type

SHD Series Product Category Chart

SHD Series		Light Source and Function	SHD2 Series	
Standard type	Built-in protection cage		Standard type	Built-in protection cage
		LED revolving type		
SHDLR	SHDLRP		SHD2LR	SHD2LRP
		LED steady/flashing type		
SHDL	SHDLP		SHD2L	SHD2LP
		Xenon lamp strobe type		
SHDS	SHDSP		SHD2S	SHD2SP
		Bulb revolving type		
SHD	SHDP		SHD2	SHD2P



SHDLR / SHDLRP LED Revolving Warning Light & Electric Horn Combination

Model number	Voltage	Current	Sound Pattern and Volume	Certificates	Weight	Color
SHDLR SHDLRP	DC12V	2.633A	·WS-5 Warning sounds : Max.114dB	CCS CE	·SHDLR DC-3.21kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	1.288A	·WP-5 Special warning sounds : Max.114dB		AC-3.91kg	
	AC110V	0.308A	·WM-5 Melodies: Max.110dB ·WA-5 Alarms: Max.114dB		·SHDLRP DC-3.46kg	
	AC220V	0.154A	·WV-5 Customizable voices : 108-113dB		AC-4.16kg	

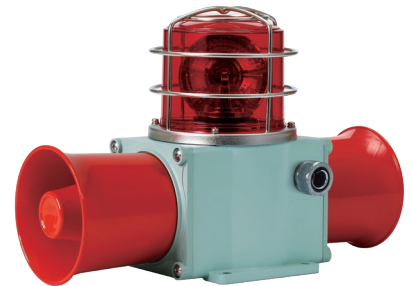
- Features high visibility in all directions with special concentrated LED light structure and multi side reflector
- Revolving speed: 120-140RPM
- Ambient operation temperature: -20°C to +50°C
- ※ CE compliant: DC24V, AC220V



SHDLR

SHD2LR / SHD2LRP LED Revolving Warning Light & Dual Electric Horn Combination

Model number	Voltage	Current	Sound Pattern and Volume	Certificates	Weight	Color
SHD2LR SHD2LRP	DC12V	4.844A	·WS-5 Warning sounds : Max.114dB x 2		·SHD2LR DC-4.26kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	2.255A	·WP-5 Special warning sounds : Max.114dB x 2		AC-4.97kg	
	AC110V	0.535A	·WM-5 Melodies: Max.110dB x 2 ·WA-5 Alarms: Max.114dB x 2		·SHD2LRP DC-4.51kg	
	AC220V	0.267A	·WV-5 Customizable voices : 108-113dB x 2		AC-5.22kg	



SHD2LRP

SHDL / SHDLP LED Steady/Flashing Warning Light & Electric Horn Combination

Model number	Voltage	Current	Sound Pattern and Volume	Certificates	Weight	Color
SHDL SHDLP	DC12V	2.511A	·WS-5 Warning sounds : Max.114dB	CCS CE	·SHDL DC-3.02kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	1.222A	·WP-5 Special warning sounds: Max.114dB		AC-3.39kg	
	AC110V	0.286A	·WM-5 Melodies: Max.110dB ·WA-5 Alarms: Max.114dB		·SHDLP DC-3.27kg	
	AC220V	0.143A	·WV-5 Customizable voices : 108-113dB		AC-3.64kg	

- Uniform and clear light diffusion with multi layered LED light distribution reflector
- Flashing rate: 60-80 flashes/min(Built-in steady/flashing selection switch)
- Ambient operation temperature: -30°C to +50°C
- ※ CE compliant: DC24V, AC220V

SHD2L / SHD2LP LED Steady/Flashing Warning Light & Dual Electric Horn Combination

Model number	Voltage	Current	Sound Pattern and Volume	Certificates	Weight	Color
SHD2L SHD2LP	DC12V	4.722A	·WS-5 Warning sounds : Max.114dB x 2		·SHD2L DC-4.07kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	2.188A	·WP-5 Special warning sounds : Max.114dB x 2		AC-4.45kg	
	AC110V	0.513A	·WM-5 Melodies: Max.110dB x 2 ·WA-5 Alarms: Max.114dB x 2		·SHD2LP DC-4.32kg	
	AC220V	0.256A	·WV-5 Customizable voices : 108-113dB x 2		AC-4.70kg	

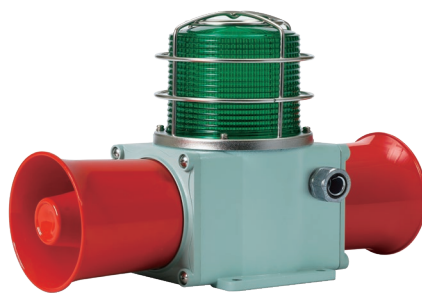
- ※ Max. built-in volume feature is based on WS, WP-Ch1 / WM-Ch4 / WA-Ch4.
- ※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

Warning Lights and Electric Horns for Vessels and Heavy Industry Applications

SHD / SHD2 Series



SHDS



SHD2S

SHD/SHD2 Series are equipped with flexible connector at cable entry. Cable gland is an optional item.



Flexible connector



Cable gland

SHDS / SHDSP Xenon Lamp Strobe Warning Light and Electric Horn Combination

Model number	Voltage	Current	Bulb			Sound Pattern and Volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SHDS SHDSP	DC12V	2.933A	200V -550V	EUB0641 -1A(G) U type	48	·WS-5 Warning sounds: Max.114dB ·WP-5 Special warning sounds: Max.114dB ·WM-5 Melodies: Max.110dB ·WA-5 Alarms: Max.114dB ·WV-5 Customizable voices: 108-113dB		·SHDS DC-3.05kg AC-3.38kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	1.411A							
	AC110V	0.360A							
	AC220V	0.220A							

- Flashing rate: 60-80 flashes/min
- Ambient operating temperature: -30°C to +50°C
- ※ CE compliant: DC24V, AC220V

SHD2S / SHD2SP Xenon Lamp Strobe Warning Light and Dual Electric Horn Combination

Model number	Voltage	Current	Bulb			Sound Pattern and Volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SHD2S SHD2SP	DC12V	5.144A	200V -550V	EUB0641 -1A(G) U type	48	·WS-5 Warning sounds: Max.114dB x 2 ·WP-5 Special warning sounds : Max.114dB x 2 ·WM-5 Melodies: Max.110dB x 2 ·WA-5 Alarms: Max.114dB x 2 ·WV-5 Customizable voices: 108-113dB x 2		·SHD2S DC-4.11kg AC-4.44kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	2.377A							
	AC110V	0.586A							
	AC220V	0.333A							

SHD / SHDP Bulb Revolving Warning light and Electric Horn Combination

Model number	Voltage	Current	Bulb			Sound Pattern and Volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SHD SHDP	DC12V	3.755A	12V15W	G23 15S	17	·WS-5 Warning sounds: Max.114dB ·WP-5 Special warning sounds: Max.114dB ·WM-5 Melodies: Max.110dB ·WA-5 Alarms: Max.114dB ·WV-5 Customizable voices: 108-113dB		·SHD DC-3.18kg AC-3.89kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	1.788A	24V15W	G23 15S	18				
	AC110V	0.422A	12V15W	G23 15S	17				
	AC220V	0.211A	12V15W	G23 15S	17				

- Revolving speed: 120-140RPM
- Ambient operating temperature: -20°C to +50°C
- ※ CE compliant: DC24V, AC220V

SHD2 / SHD2P Bulb Revolving Warning light and Dual Electric Horn Combination

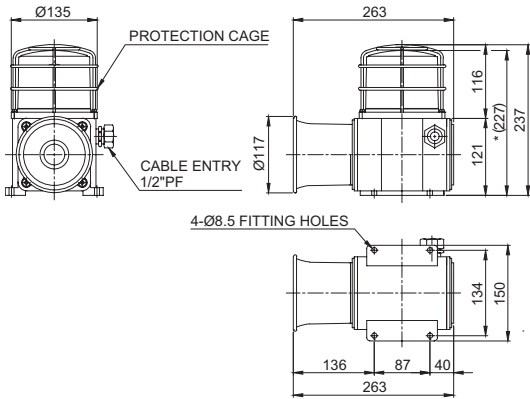
Model number	Voltage	Current	Bulb			Sound Pattern and Volume	Certificates	Weight	Color
			Spec	Standard	Parts no				
SHD2 SHD2P	DC12V	5.966A	12V15W	G23 15S	17	·WS-5 Warning sounds: Max.114dB x 2 ·WP-5 Special warning sounds : Max.114dB x 2 ·WM-5 Melodies: Max.110dB x 2 ·WA-5 Alarms: Max.114dB x 2 ·WV-5 Customizable voices: 108-113dB x 2		·SHD2 DC-4.23kg AC-4.95kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	DC24V	2.755A	24V15W	G23 15S	18				
	AC110V	0.648A	12V15W	G23 15S	17				
	AC220V	0.324A	12V15W	G23 15S	17				

- ※ Max. built-in volume feature is based on WS, WP-Ch1 / WM-Ch4 / WA-Ch4.
- ※ In case of customized WV 5 tone type, there may be difference of volume depending on user's audio file type.

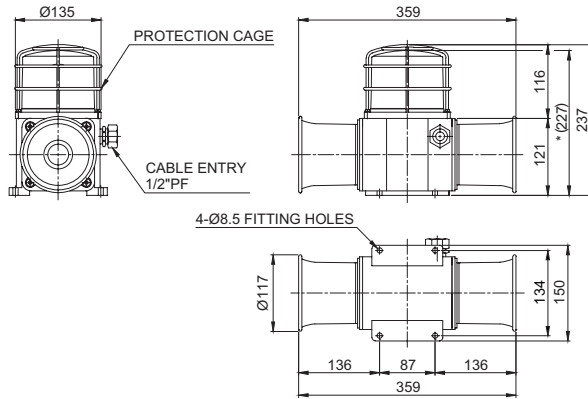
Technical Diagram

Units: mm

·SHDP



·SHD2P



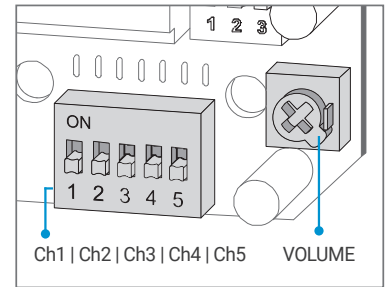
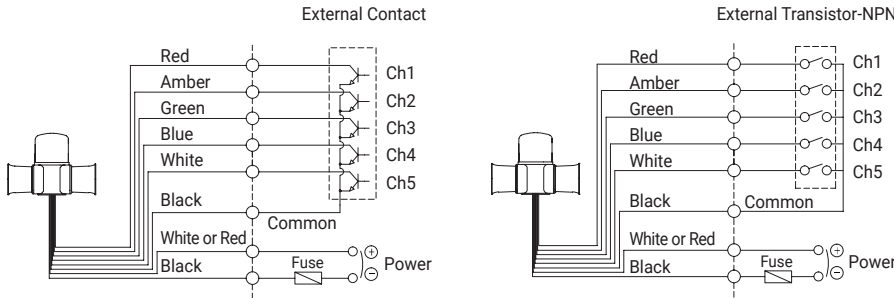
※ *(227) represents SHD/SHD2 size without protection cage.

Sound Selection Instructions and Wiring

- SHD Series-DC/AC
- SHD2 Series-DC/AC

· Customization: External contact(LC)

· Standard Type: Select sound using the switch inside of the unit. When you turn on the dip switch for each channel, the designated sound will be played.



Wiring Instructions

· SHD, SHDLR, SHD2, SHD2LR - Black output line is negative(-).

Sound tones for standard model

Sound	Built-in sound	Ch	Sound tone
WS	5 Warning sounds	Ch1	Fire.A-ANG
		Ch2	Emergency WA-U(Yelp)
		Ch3	Ambulance PI-PO(Hi-low)
		Ch4	Machinery Fault
		Ch5	High Expansion
WP	5 Special warning sounds	Ch1	Fire.A-ANG
		Ch2	Abandon Alarm
		Ch3	Machinery Fault
		Ch4	High Expansion
		Ch5	7 Short Pl. / 1 Long

Sound	Built-in sound	Ch	Sound tone
WM	5 Melodies	Ch1	Sweet Home
		Ch2	For Elise
		Ch3	Cuckoo's Waltz
		Ch4	Piano Sonata
		Ch5	Turkish March
WA	5 Alarms	Ch1	Beep Intermittent
		Ch2	Door Chime
		Ch3	Phone Ring
		Ch4	PI.PI.PI Short
		Ch5	Tripping Beat
WV	5 Customizable voices	Ch1- Ch5	Customized sound

※ Standard model has 5 warning sounds(WS), 5 special warning sounds(WP), 5 melodies(WM), 5 alarms(WA) and 5 customizable voices(WV).

Ordering Specification

SHD2L	WA	24	R
[Model number]	[Sound]	[Voltage]	[Color]
SHDLR / SHDLRP SHD2LR / SHD2LRP SHDL / SHDLP SHD2L / SHD2LP SHDS / SHDSP SHD2S / SHD2SP SHD / SHDP SHD2 / SHD2P	WS-Warning sounds WP-Special warning sounds WM-Melodies WA-Alarms WV-Customizable voices	12-DC12V 24-DC24V 110-AC110V 220-AC220V	● R-Red ● A-Amber ● G-Green ● B-Blue

Customization

- 3/4" PF Cable entry(Standard: 1/2"PF)
- Cable gland type
- Customized external sound line type available: SHD/SHD2 Series have built-in switch for sound tone selection