LS7

Signal Tower

RoHS   C E   c ᴿ US

LED 🔔

2 Alarm Sounds (FB Type)

90dB at 1m (FB Type)

IP65 (B Type:IP54)

Φ70

NPN/PNP
Open-collector

ALARM

Off-white Body
without Buzzer

Dark Gray Body
without Buzzer

Silver Body
without Buzzer

Off-white Body
with Buzzer

Dark Gray Body
with Buzzer

Silver Body
with Buzzer

New concept!
Smart & smooth signal light body which improves
harmony with equipment.

How to Order

LED Signal Tower

LS7- ① 02 ② ③ ④ W ⑤ — ⑥

① No. of Lighting Units
3: 3 Tiers
5: 5 Tiers

② Body Color
No Mark: Off-white
D: Dark Gray
S: Silver

③ Lighting
No Mark: Illumination Only
F: Illumination・Flashing

④ Buzzer
No Mark: No Buzzer
B: Buzzer

⑤ Wiring
C: M12 Connector
H: Lead Wires※

⑥ LED Color
R: Red
Y: Yellow
G: Green
B: Blue
C: White
N: Blank

Ex.: LS7-302WC-RYGNN
・Body Color…Off-white   ・Lighting…Illumination
・Buzzer…None   ・Wiring…M12 Connector
・LED Colors: Red, Yellow, Green, (Blank), (Blank)

● F type models with Illumination・Flashing are only available for Lead Wire and requires an H mark.
● C type models (M12 Connector Type) are only available with a continuous sound buzzer.

Specifications

Model	Number of Lighting Units	Rated Voltage	Mounting	Rated Current Consumption	Maximum Rated Current	Maximum Sound Pressure	Operating Temperature Range	Protection Rating	Mass:			
									Lead-wire Type (H)		M12 Connector Type (C)	
									Illumination (No Mark)	Illumination/Flash/ 2 Alarms (FB)	Illumination (No Mark)	1 Alarm (B)
LS7-302	3 Tiers	DC 24V (±10%)	Direct (Indoors Only)	Red: 20mA Amber, Green, Blue, Clear/White 30mA Alarm 40mA	Red: 35mA Amber, Green, Blue, Clear/White 40mA Alarm 55mA	Buzzer1 ab. 82dB Lead-wire Type (Intermittent Beep1) M12 Connector Type (Continuous Beep) Buzzer2 ab. 85dB Lead-wire Type (Intermittent Beep2) M12 Connector Type (None)	-30°Cto+60°C (Less than 85% RH)	Illumination Type: IP65* Buzzer Type: IP54	280g ±10%	370g ±10%	260g ±10%	320g ±10%
LS7-502	5 Tiers											

* IP67 available by special order
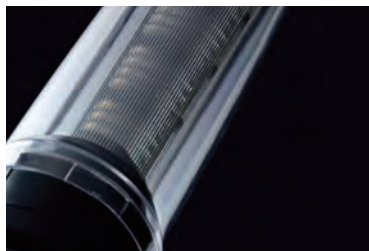
A smooth-surfaced body without any metal exposed

By changing the surface of the body into a smoother form, the adhesion of water and dust is reduced. Also, the structure does not have screws, shafts, etc., exposed, which gives comfort for applications in the lithium ion battery manufacturing and food processing industries. And, with the outer lens structure, the risk of environmental stress cracks due to oil mist is reduced.The lens cover is made of shock-resistant polycarbonate.
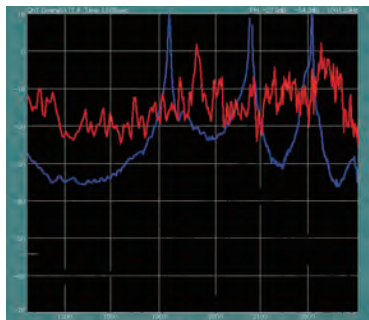
A sound heard throughout various environments

In addition to the existing lead wire, M12 connector quick disconnect is also available. Moreover, when moving to carry and to go out of the device, it is possible to detach it easily with the M12 connector.

Speaker Horn (Alarm Type)

Frequency graph of a metal-working shop sound mixed with buzzer2 alarm. (Inter-corporate Measurement)

* Buzzer1 (H type or C type) is measured at 2000Hz.
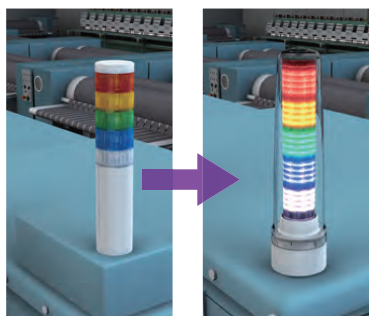
Easy attachment, no need for Relay Box

In addition to the conventional three-bolt installation, a two-bolt installation from the upper mount has been added to help make a smoother installation. Therefore, by using the mount as a relay box, it reduces the manufacturing cost for an extra relay box, which used to be a necessity up until now.

Fixed Mounting Style

M12 Connector Wiring & Tiered Construction

The stackable design and M12 connector quick disconnect (Cable Sold Separate) can drastically reduce labor and time. Moreover, the disconnection and reconnection of the body when removing it to relocate a machine has become smoother.

Stackable Construction

High-contrast Visibility

With the adoption of an inner lens, the LED emits a more efficient light. Moreso, the contrast is increased when the Signal Tower lights up or flashes, with a distinguishable signal color which remarkably improves visibility.

Remarkable display in ANY environment
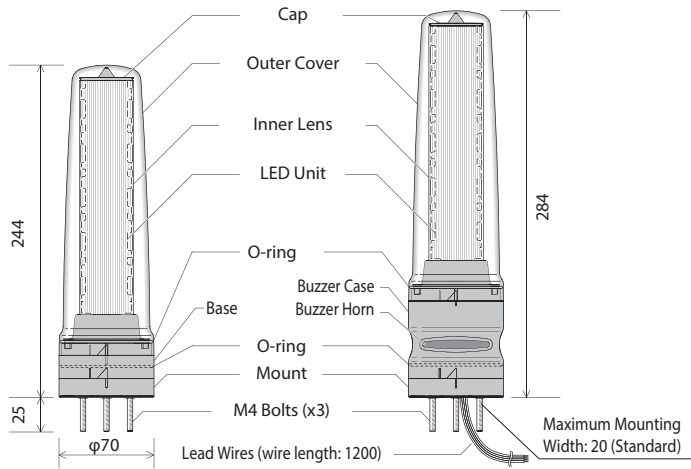
The LS7 has passed various tests for water resistance, dust, temperature, and variable vibration frequency tests, etc., so that it can endure various environments.

All-plastic Bracket

Like the body, the smooth-shaped platform bracket won't collect water or dust. Since no metal parts like screws and shafts are exposed, worries of food tampering can be put to rest in the food process lines.

Dimensions (Unit: mm)

Cap
Outer Cover
Inner Lens
LED Unit
O-ring
Buzzer Case
Buzzer Horn
Base
O-ring
Mount
M4 Bolts (x3)
Lead Wires (wire length: 1200)

244
284
25
φ70

Maximum Mounting Width: 20 (Standard)

Product Front (Buzzer Horn Direction)

120°
120°
20
Φ40
Installation Hole (3-Φ5) Φ70
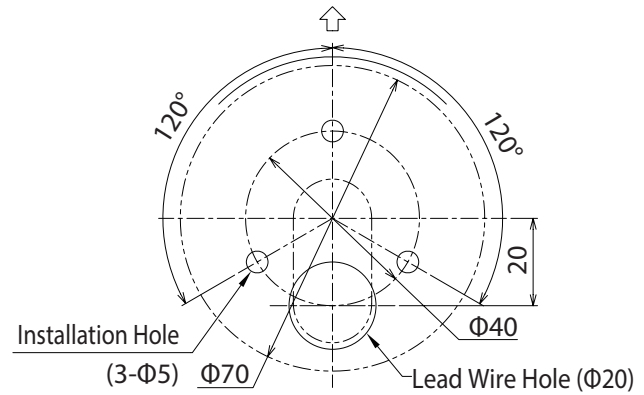Lead Wire Hole (Φ20)

Optional Parts

Like the body, the smooth-shaped platform bracket won't collect water or dust. Since no metal parts like screws and shafts are exposed, worries of food contamination can be put to rest in food processing.

Platform Bracket SZ-100
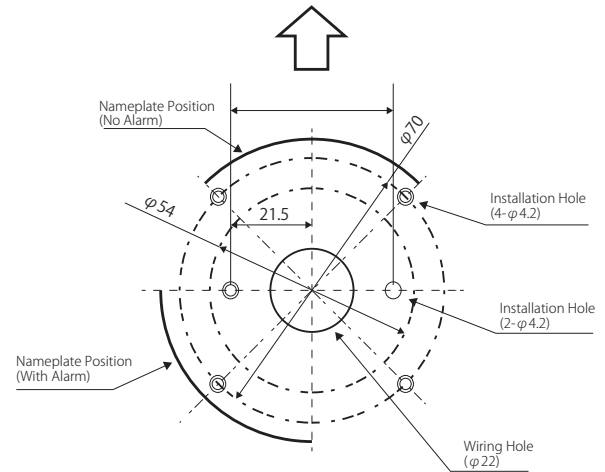
Wall Mounting Bracket SZ-110

Multi-mount Bracket SZ-130

Multi-mount Bracket SZ-130 Installation Dimiensions

Front (Audible Alarm Opening)

Nameplate Position (No Alarm)
φ70
φ54
21.5
Installation Hole (4-φ4.2)
Installation Hole (2-φ4.2)
Nameplate Position (With Alarm)
Wiring Hole (φ22)

M12 Connector & Cable
Manufactured by the OMRON Corp.)
SZ-120-02 Cable Length 2 m (XS2F-D821-DH0-R)
SZ-120-05 Cable Length 5 m (XS2F-D821-GH0-R)
SZ-120-10 Cable Length 10m (XS2F-D821-JH0-R)

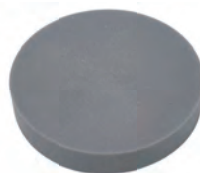*Only for connecting to the LS7.

Replacement Parts

Outer Cover for LS7*

Material: Polycarbonate
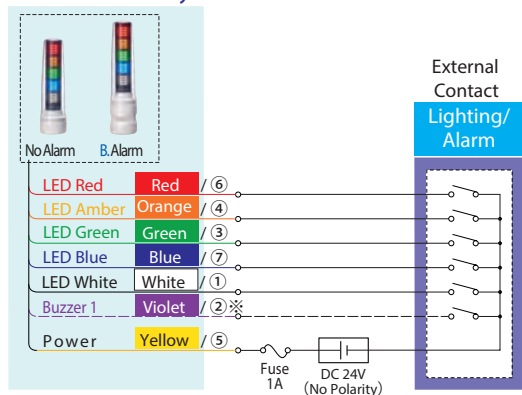
O-ring for LS7

Material: Silicone
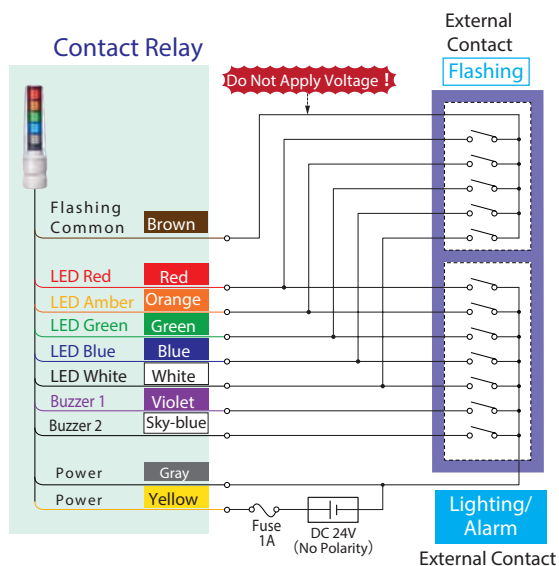
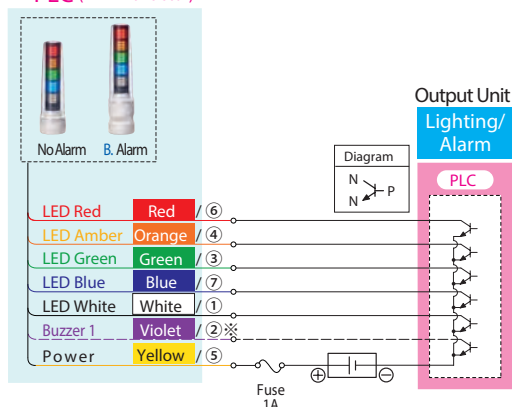Mount Cover for LS7 (Accessory)
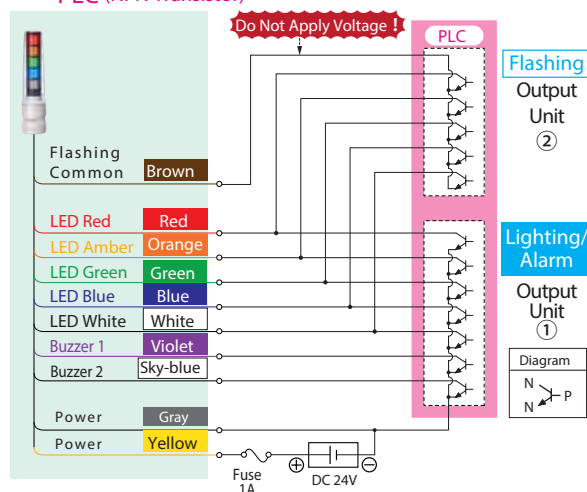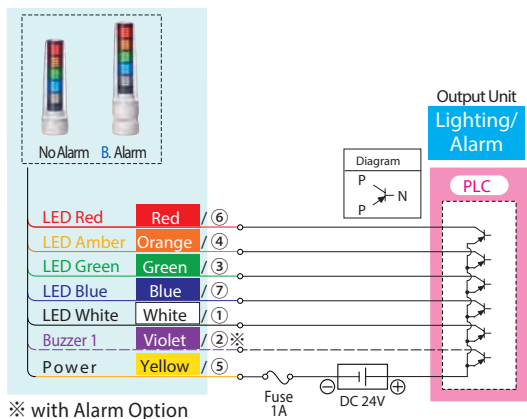
Material: Silicone

Wiring

Contact Relay

No Alarm   B. Alarm

External Contact
Lighting/Alarm

LED Red	Red	/ ⑥
LED Amber	Orange	/ ④
LED Green	Green	/ ③
LED Blue	Blue	/ ⑦
LED White	White	/ ①
Buzzer 1	Violet	/ ② ※
Power	Yellow	/ ⑤

Fuse 1A   DC 24V (No Polarity)

Contact Relay

Do Not Apply Voltage !

External Contact
Flashing

Flashing Common   Brown

LED Red	Red
LED Amber	Orange
LED Green	Green
LED Blue	Blue
LED White	White
Buzzer 1	Violet
Buzzer 2	Sky-blue
Power	Gray
Power	Yellow

Fuse 1A   DC 24V (No Polarity)

Lighting/Alarm
External Contact

PLC (NPN Transistor)

No Alarm   B. Alarm

Output Unit
Lighting/Alarm

Diagram
N
N → P
PLC

LED Red	Red	/ ⑥
LED Amber	Orange	/ ④
LED Green	Green	/ ③
LED Blue	Blue	/ ⑦
LED White	White	/ ①
Buzzer 1	Violet	/ ② ※
Power	Yellow	/ ⑤

Fuse 1A

PLC (NPN Transistor)

Do Not Apply Voltage !
PLC
Flashing
Output Unit ②

Flashing Common   Brown

Lighting/Alarm
Output Unit ①

LED Red	Red
LED Amber	Orange
LED Green	Green
LED Blue	Blue
LED White	White
Buzzer 1	Violet
Buzzer 2	Sky-blue
Power	Gray
Power	Yellow

Diagram
N
N → P

Fuse 1A   DC 24V

PLC (PNP Transistor)

No Alarm   B. Alarm

Output Unit
Lighting/Alarm

Diagram
P
P → N
PLC

LED Red	Red	/ ⑥
LED Amber	Orange	/ ④
LED Green	Green	/ ③
LED Blue	Blue	/ ⑦
LED White	White	/ ①
Buzzer 1	Violet	/ ② ※
Power	Yellow	/ ⑤

Fuse 1A   DC 24V

※ with Alarm Option

M12 Connector PIN Wiring Diagram

② Buzzer 1 ※
① White LED
③ Green LED
⑦ Blue LED
④ Amber LED
⑥ Red LED
⑤ Power

※ With Alarm Option

PLC (PNP Transistor)

Do Not Apply Voltage !
PLC
Flashing
Output Unit ②

Flashing Common   Brown

Lighting/Alarm
Output Unit ①

LED Red	Red
LED Amber	Orange
LED Green	Green
LED Blue	Blue
LED White	White
Buzzer 1	Violet
Buzzer 2	Sky-blue
Power	Gray
Power	Yellow

Diagram
P
P → N

Fuse 1A   DC 24V

Note: When connecting the PLC outputs for illumination and flashing functions, the wiring (Common Wires) has to be separate between the flashing and non-flashing circuits.