

LD6A

LED Signalight Towers



Ergonomically designed for visual and audible recognition

LD6A Signalight combines the latest LED technology with IDEC's safety technology. Provides a new concept and innovative design, ideal for factory automation and other various applications.

Stylish

Smart functions with a stylish design

Universal design. The striped design makes the Signalight highly visible.



Frame Mount

Direct Mount



Colour Arrangement according to IEC Standards

Indicating towers on machines should have the applicable colours in the following order from the top down; RED, YELLOW, BLUE, GREEN, WHITE. (IEC 60204-1 Fifth edition Chapter 10.3.2 Colours)

Colours for indicator lights and their meanings with respect to the condition of the machine

| Colour | Meaning | Explanation | Action by operator |
|--------|-----------|---|---|
| RED | Emergency | Hazardous condition | Immediate action to deal with hazardous condition |
| YELLOW | Abnormal | Abnormal condition Impending critical condition | Monitoring and/or intervention (for example by re-establishing the intended function) |
| BLUE | Mandatory | Indication of a condition that requires action by the operator | Mandatory action |
| GREEN | Normal | Normal condition | Optional |
| WHITE | Neutral | Other conditions; may be used whenever doubt exists about the application of RED, YELLOW, GREEN, BLUE | Monitoring |

Other Applications

Bank



For customer waiting systems

Hospital/Welfare Facility



For medical equipment

New Product

Steady/Flashing/Alarm

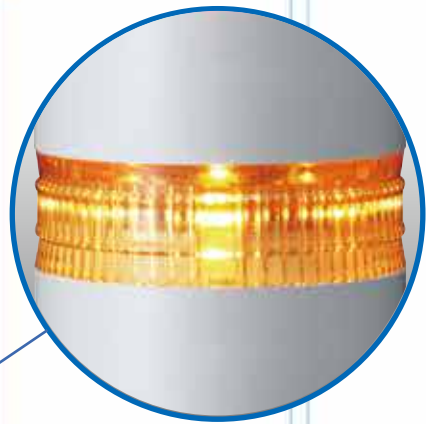
The alarm is designed to provide a clear, audible sound.



Pole Mount
(w/Base)



Pole Mount
(w/Base)



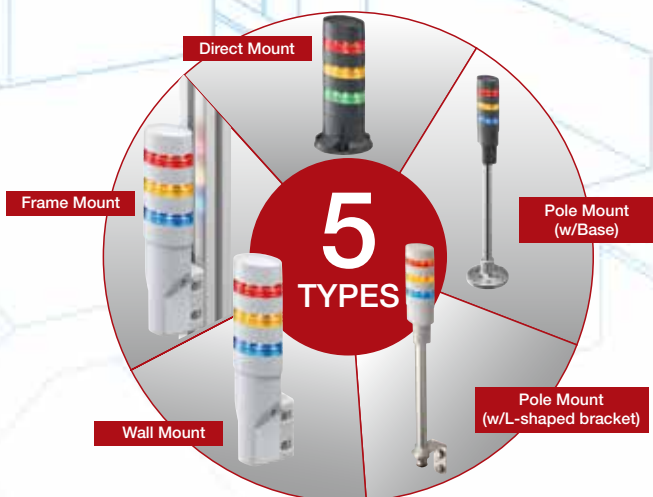
Technology

Unique lens shape offers high visibility.

The original lens shape enable high visibility from different directions.



Pole Mount
(w/L-shaped bracket)



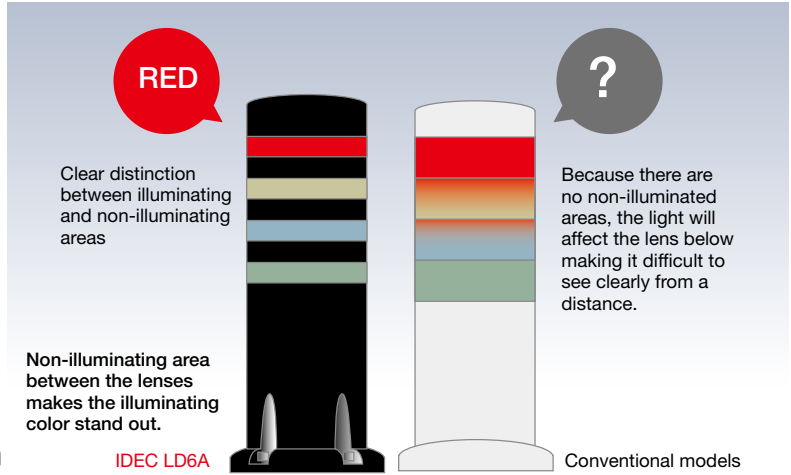
LD6A

LED SignalLight Towers



Stylish design with high functionality

■ Unique design — oval shape with striped design for clear visibility



■ Marking is possible



■ IP65 protection degree



Note: Steady/Flashing/Alarm: IP54
 Pole mount (L-shaped bracket) w/o bracket: IP54
 Pole mount (L-shaped bracket) w/bracket: IP23

■ Two housing colors



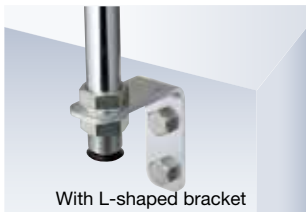
Dark and light gray housings are available, providing a stylish image.



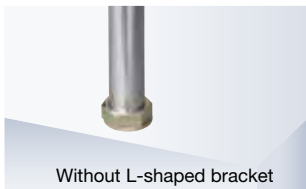
Easy installation and assembly

■ Different mounting styles

L-shaped bracket available for pole mounting. Can also be mounted directly to equipment.



With L-shaped bracket



Without L-shaped bracket

■ Easy Assembly

The unique secure terminal style of the LED module makes assembly quick and easy, enabling assembly using only one hand.



■ Plug-in Terminals

Highly reliable plug-in terminals. Easy expansion of LED module.

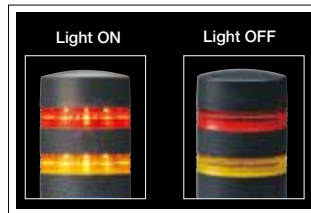




Steady/Flashing/Alarm

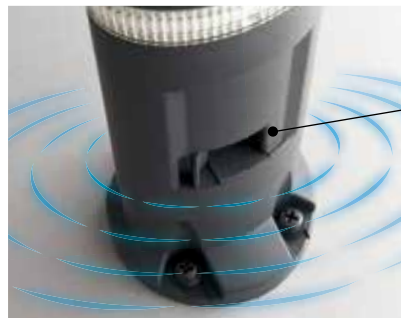
■ Flashing cycle complies with IEC standards [1.75 Hz (approx. 105 times per second)]

IEC 60073 Sixth edition 2002 Chapter 4.2.3
"Coding by changing of characteristics over time"

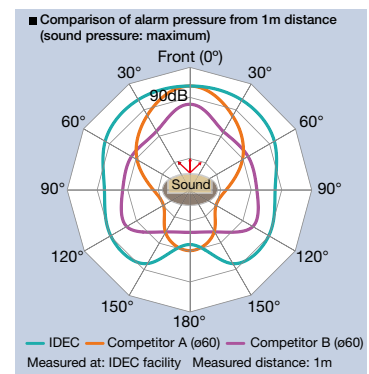


■ Unique powerful design with 360-degree sound field.
Two alarm sound patterns available.

Alarm sound at 3.3 kHz and maximum sound level of 90 dB. With IDEC's unique resonant design, the SignalLight has a frequency that is most sensitive to the human ear and sends a clear sound over 360 degrees. Therefore, the sound recognition is improved as the alarm can be heard in a noisy environment, enhancing safety.



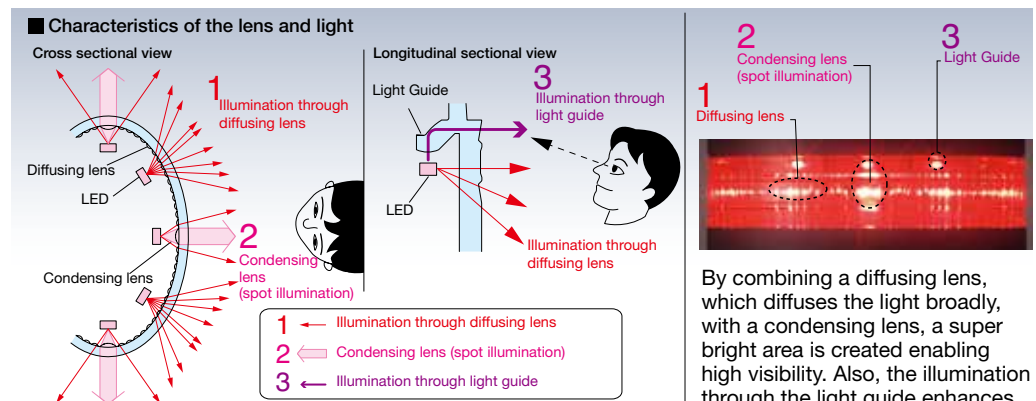
Sound volume adjustment (adjustable within a range of 70 to 90 dB)
Alarm 1: Intermittent short beep-beep sound
Alarm 2: Intermittent long beep-beep sound



The alarm can be heard from all directions as the sound spreads out evenly.

Unique lens shape offers high visibility

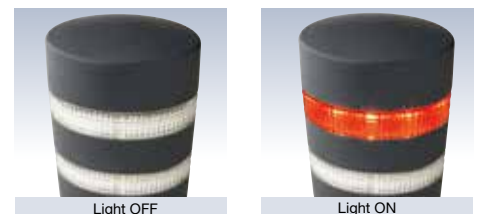
■ Three different illumination methods and a unique lens shape enable high visibility from all directions.



By combining a diffusing lens, which diffuses the light broadly, with a condensing lens, a super bright area is created enabling high visibility. Also, the illumination through the light guide enhances the visibility when the SignalLight is viewed from below.

■ Clear visibility difference

Because a reflective mirror is not installed in the the LED unit, diffuse reflection does not occur from light disturbance or from strong light. Also, when the clear lens type is used, the visibility difference between when the light is on and when it is off is apparent even in a bright environment.



Clear lens type

*Photo: steady/flashing/alarm model.
*Only light gray or dark gray housing is available.

LD6A LED SignalLight Towers

**Oval shape with striped design.
Presents a stylish image on all equipment.**

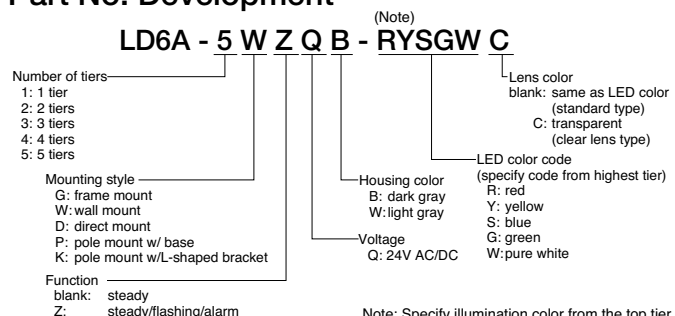
- Striped design with non-illuminating area between the lenses. Built-in super bright LEDs reduce light disturbance to make the illuminating color stand out.
- IDEC's unique lens shape enables high-visibility from different directions.
- Five different mounting styles available. Easy mounting to aluminum frames, wall mounting, direct mounting, and pole mounting (with base or with L-shaped bracket).
- Clear lens type available.
- Custom configuration is possible.
- Flashing cycle: 1.75 Hz (approx. 105 flashes per second) Conforms to international standard IEC 60073.
- Ergonomically designed alarm sound (3.3 kHz, 2 different sounds) spreads 360° degrees. Adjustable volume (70 to 90 dB).
- Degree of protection: IP65 (IP54 for steady, flashing, alarm types and pole mount without L-shaped bracket)

| Applicable Standards | Mark | File No. or Organization |
|--------------------------|------|-----------------------------------|
| UL508 CSA C22.2 No.14 | | UL Recognition File No. E68961 |
| EN60947-5-1 | | EU Low Voltage Directive |

General Specifications

| | |
|----------------------------------|---|
| Safety Standards | IEC 60947-5-1, EN60947-5-1, UL508, CSA C22.2 No.14 |
| Operating Temperature | -25 to +55°C (no freezing) |
| Operating Humidity | 45 to 85% RH (no condensation) |
| Storage Temperature | -40 to +75°C (no freezing) |
| Overvoltage Category | III (IEC 60664-1) |
| Impulse Withstand Voltage | 800V (IEC 60947-1) |
| Insulation Resistance | 100 MΩ minimum (500V DC megger) |
| Dielectric Strength | Between live and dead parts: 1000V AC, 1 minute |
| Pollution Degree | 3 |
| Corrosion Immunity | Atmosphere free from corrosive gases |
| Vibration Resistance | Operating extremes: 10 to 55 Hz, amplitude 0.5 mm |
| Shock Resistance | Operating extremes: 147 m/s ² , 6 shocks each in 6 axes |
| Degree of Protection (IEC 60529) | Steady: IP65 Steady/flashing/alarm: IP54 Pole mount (w/o L-shaped bracket): IP54 Pole mount (w/L-shaped bracket): IP23 |
| Housing Color | Dark gray, Light gray |
| Material | Housing: ABS resin Lens: AS resin Pole: Steel (nickel-chrome plated) Pole stand: Diecast aluminum |
| Cable | UL1007 AWG22 |

Part No. Development



Functional Specifications

| | | | |
|----------------------------|--|---|--------------|
| Rated Insulation Voltage | 60V | | |
| Operating Voltage | 24V AC/DC ±10% | | |
| Rated Voltage (Ue) | 24V AC/DC | | |
| LED Color Code | R (red), Y (yellow), S (blue), G (green), W (pure white) | | |
| LED | Illumination Color | R, Y | S, G, W |
| | Rated Current (per tier) | 25 mA | 30 mA, 20 mA |
| | Power Consumption (per tier) | 0.6W | 0.75W, 0.5W |
| LED Life (Note) | Approx. 30,000 hours (until the brightness reduces to 50% the initial value when lit at complete direct current of the rated voltage under 25°C environment) | | |
| Flashing Cycle (IEC 60073) | Approx. 105 flashes per minute (1.75 Hz) | | |
| Alarm | Alarm Cycle | Alarm 1: approx. 700 times per minute Alarm 2: approx. 35 times per minute | |
| | Draw Current | 110 mA max. | |
| | Inrush Current | AC: 400 mA max. DC: 250 mA max. | |
| | Alarm Volume | 70 to 90 dB, at 1m (volume adjustable) | |
| Acoustic Frequency | Approx. 3.3 kHz | | |

Note: Life of the LED varies according to operating conditions and environment.

External Contact Ratings

| | | | |
|-------|--|---------------------|-------------|
| LED | AC Contact Capacity (per tier) | Current Capacity | 100 mA min. |
| | DC Contact Capacity, Transistor Capacity (per tier) | Dielectric Strength | 35V AC min. |
| | | Current Capacity | 100 mA min. |
| Alarm | AC Contact Capacity (per alarm) | Dielectric Strength | 35V min. |
| | | Leakage Current | 0.1 mA max. |
| | | Current Capacity | 400 mA min. |
| | DC Contact Capacity, Transistor Capacity (per alarm) | Dielectric Strength | 35V AC min. |
| | | Leakage Current | 0.1 mA max. |

Assembled Products

Package Quantity: 1

| Mounting Style | Tiers | LED Color Code | Steady | | Steady/Flashing/Alarm | |
|------------------------------------|-------|----------------|-------------|------------------|-----------------------|------------------|
| | | | Part No. | Weight (approx.) | Part No. | Weight (approx.) |
| Frame Mount | 1 | R, Y, S, G, W | LD6A-1GQ*-□ | 220g | LD6A-1GZQ*-□ | 310g |
| | 2 | RY, RG | LD6A-2GQ*-□ | 260g | LD6A-2GZQ*-□ | 350g |
| | 3 | RYS, RYG | LD6A-3GQ*-□ | 300g | LD6A-3GZQ*-□ | 390g |
| | 4 | RYSG | LD6A-4GQ*-□ | 340g | LD6A-4GZQ*-□ | 430g |
| | 5 | RYSGW | LD6A-5GQ*-□ | 380g | LD6A-5GZQ*-□ | 470g |
| Wall Mount | 1 | R, Y, S, G, W | LD6A-1WQ*-□ | 225g | LD6A-1WZQ*-□ | 315g |
| | 2 | RY, RG | LD6A-2WQ*-□ | 265g | LD6A-2WZQ*-□ | 355g |
| | 3 | RYS, RYG | LD6A-3WQ*-□ | 305g | LD6A-3WZQ*-□ | 395g |
| | 4 | RYSG | LD6A-4WQ*-□ | 345g | LD6A-4WZQ*-□ | 435g |
| | 5 | RYSGW | LD6A-5WQ*-□ | 385g | LD6A-5WZQ*-□ | 475g |
| Direct Mount | 1 | R, Y, S, G, W | LD6A-1DQ*-□ | 185g | LD6A-1DZQ*-□ | 275g |
| | 2 | RY, RG | LD6A-2DQ*-□ | 225g | LD6A-2DZQ*-□ | 315g |
| | 3 | RYS, RYG | LD6A-3DQ*-□ | 265g | LD6A-3DZQ*-□ | 355g |
| | 4 | RYSG | LD6A-4DQ*-□ | 305g | LD6A-4DZQ*-□ | 395g |
| | 5 | RYSGW | LD6A-5DQ*-□ | 345g | LD6A-5DZQ*-□ | 435g |
| Pole Mount (with base) | 1 | R, Y, S, G, W | LD6A-1PQ*-□ | 645g | LD6A-1PZQ*-□ | 735g |
| | 2 | RY, RG | LD6A-2PQ*-□ | 685g | LD6A-2PZQ*-□ | 775g |
| | 3 | RYS, RYG | LD6A-3PQ*-□ | 725g | LD6A-3PZQ*-□ | 815g |
| | 4 | RYSG | LD6A-4PQ*-□ | 765g | LD6A-4PZQ*-□ | 855g |
| | 5 | RYSGW | LD6A-5PQ*-□ | 805g | LD6A-5PZQ*-□ | 895g |
| Pole Mount (with L-shaped bracket) | 1 | R, Y, S, G, W | LD6A-1KQ*-□ | 640g | LD6A-1KZQ*-□ | 730g |
| | 2 | RY, RG | LD6A-2KQ*-□ | 680g | LD6A-2KZQ*-□ | 770g |
| | 3 | RYS, RYG | LD6A-3KQ*-□ | 720g | LD6A-3KZQ*-□ | 810g |
| | 4 | RYSG | LD6A-4KQ*-□ | 760g | LD6A-4KZQ*-□ | 850g |
| | 5 | RYSGW | LD6A-5KQ*-□ | 800g | LD6A-5KZQ*-□ | 890g |

- Specify a housing color code in place of *: B (dark gray), W (light gray)
- Select the illumination color from the top tier specifying the LED color code from the left.
□ :R (red), Y (yellow), S (blue), G (green), W (pure white)

Ordering Non-Standard Products

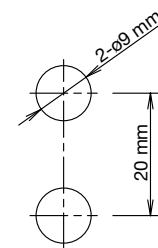
- Order according to the table above. Specify the illumination color from the top tier.
Example: When the LED color is RYGSW => LD6A-5GQW-RYGSW
- Clear lens type also available. Specify "C" after the LED color code.
Example: LD6A-5GQW-RYGSW => LD6A-5GQW-RYSGWC

When ordering the model with a cable 500mm longer than the standard model

- Specify "-L" after the LED color code. Example: LD6A-3KZQB-RYG => LD6A-3KZQB-RYG-L

When ordering the pole mount model with L-shaped bracket Part No. LD9Z-6AK1 (different panel-cut out from standard model, as shown at right)

- Specify "1" after the housing color code. Example: LD6A-4KQB-RYSG => LD6A-4KQB1-RYSG



Note: Panel cut-out when using no L-shaped bracket is the same as the standard model.

To specify the pole length for pole-mount model, consult IDEC.

Combination of LED Color and Lens Color

| LED Color | Color Lens Type | Clear Lens Type |
|---------------|-----------------|-----------------|
| R: Red | Red lens | Clear lens |
| Y: Yellow | Yellow lens | Clear lens |
| S: Blue | Blue lens | Clear lens |
| G: Green | Green lens | Clear lens |
| W: Pure white | Clear lens | |

For pure white (W) LED, a clear lens is used in both color and clear lens configurations.

Supplied Parts

| Mounting Style | Supplied Parts |
|------------------------------------|---|
| Frame mount | M4 screw (4 pcs)*, M4 spring washer (4 pcs)*, M4 plain washer (4 pcs)*, M5 screw (2 pcs), M5 spring washer (2 pcs), M5 plain washer (2 pcs), bracket (1 pc) |
| Wall mount | M4 screw (20 mm) (4 pcs), M4 screw (8 mm) (4 pcs)*, M4 spring washer (8 pcs)*, M4 plain washer (8 pcs)*, M4 nut (4 pcs), bracket (1 pc), gasket (1 pc) |
| Direct mount | M5 screw (4 pcs)*, M5 spring washer (4 pcs)*, M5 plain washer (4 pcs)*, M5 nut (4 pcs)*, O-ring (4 pcs), gasket (1 pc) |
| Pole mount (with base) | M5 screw (4 pcs), M5 spring washer (4 pcs), M5 plain washer (4 pcs), M5 nut (4 pcs), O-ring (4 pcs), gasket (1 pc) |
| Pole mount (with L-shaped bracket) | M22 plain washer 2 (pcs), M22 nut (2 pcs), bracket (1 pc) |

*For dark gray housing, black screws and washers are supplied. For light gray housing, silver screws and washers are supplied.

LD6A LED SignalLights

Sub-assembled Products

Base Module


Package Quantity: 1

| Description | Mounting Style | Part No. | | Remarks |
|---|------------------------------------|-----------|-----------------------|------------------------|
| | | Steady | Steady/Flashing/Alarm | |
|  | Frame Mount | LD6A-0GQ* | LD6A-0GZQ* | A top cap is supplied. |
| | Wall Mount | LD6A-0WQ* | LD6A-0WZQ* | |
| | Direct Mount | LD6A-0DQ* | LD6A-0DZQ* | |
| | Pole Mount (with base) | LD6A-0PQ* | LD6A-0PZQ* | |
| | Pole Mount (with L-shaped bracket) | LD6A-0KQ* | LD6A-0KZQ* | |

- Specify a housing color code in place of *: B (dark gray), W (light gray)
- Do not supply power to the base module without connecting LED modules.


LED Module

Package Quantity: 1

| Description | Part No. | LED Color Code | Remarks | |
|---|------------------------|----------------|---------------|------------|
|  | For dark gray housing | LD9Z-6ALB-□ | R, Y, S, G, W | Color lens |
| | | LD9Z-6ALB-□C | R, Y, S, G | Clear lens |
| | For light gray housing | LD9Z-6ALW-□ | R, Y, S, G, W | Color lens |
| | | LD9Z-6ALW-□C | R, Y, S, G | Clear lens |

- Specify an LED color code in place of □: R (red), Y (yellow), S (blue), G (green), W (pure white)
- When using pure white (W) with a clear lens, order LD9Z-6ALB-W (dark gray housing) or LD9Z-6ALW-W (light gray housing).

Center Screw Set





| Description | Part No. | Remarks | |
|---|----------|-----------|--|
|  Material: SWRM3 (trivalent chromate) | 1 tier | LD9Z-6AC1 | A plain washer and a spring washer are supplied. |
| | 2 tiers | LD9Z-6AC2 | |
| | 3 tiers | LD9Z-6AC3 | |
| | 4 tiers | LD9Z-6AC4 | |
| | 5 tiers | LD9Z-6AC5 | |

Ordering Examples

- [Ex. 1] When ordering LD6A-3PQW-RYG as sub-assembled parts, specify the following parts:
Pole mount (with base), steady, light gray housing, 3 tiers, color lens LED modules with Red, Yellow, and Green LED
- | | | |
|--|-------------|---------|
| Base module (pole mount with base, steady, light gray housing) | LD6A-0PQW | 1 piece |
| LED module (red LED with color lens, light gray housing) | LD9Z-6ALW-R | 1 piece |
| LED module (yellow LED with color lens, light gray housing) | LD9Z-6ALW-Y | 1 piece |
| LED module (green LED with color lens, light gray housing) | LD9Z-6ALW-G | 1 piece |
| Center screw set (3 tiers) | LD9Z-6AC3 | 1 piece |

- [Ex. 2] When ordering LD6A-5WZQB-RYSGWC as sub-assembled parts, specify the following parts:
Wall mount, steady/flashing/alarm, dark gray housing, 5 tiers, clear lens LED modules with Red, Yellow, Blue, Green, and Pure white LED
- | | | |
|--|--------------|---------|
| Base module (wall mount, steady/flashing/alarm, dark gray housing) | LD6A-0WZQB | 1 piece |
| LED module (red LED with clear lens, dark gray housing) | LD9Z-6ALB-RC | 1 piece |
| LED module (yellow LED with clear lens, dark gray housing) | LD9Z-6ALB-YC | 1 piece |
| LED module (blue LED with clear lens, dark gray housing) | LD9Z-6ALB-SC | 1 piece |
| LED module (green LED with clear lens, dark gray housing) | LD9Z-6ALB-GC | 1 piece |
| LED module (pure white LED with clear lens, dark gray housing) | LD9Z-6ALB-W | 1 piece |
| Center screw set (5 tiers) | LD9Z-6AC5 | 1 piece |

Accessories

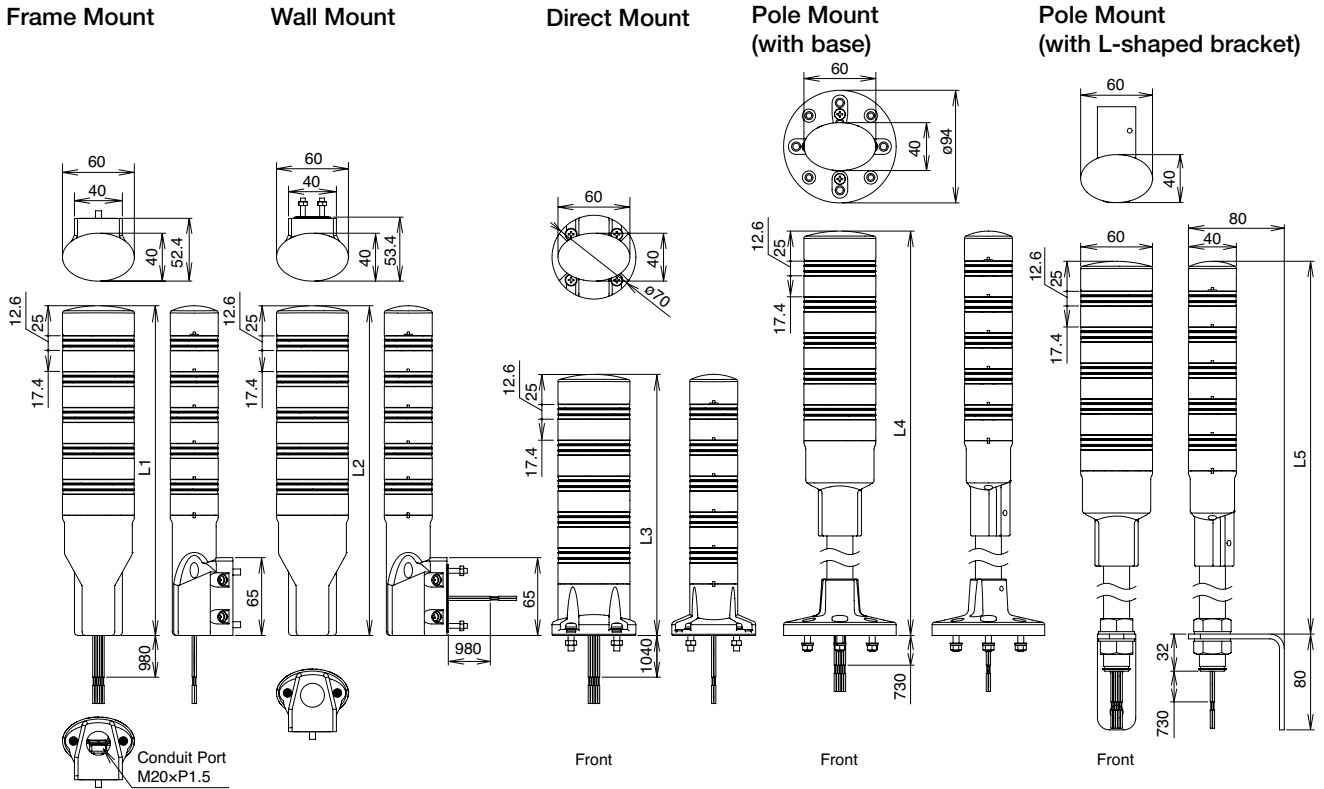
| Description | Part No. | Remarks | |
|---|-----------------------------------|-----------|--|
| Top Cap (ABS resin)  | For dark gray | LD9Z-6ATB | A top cap is supplied with a base module. |
| | For light gray | LD9Z-6ATW | |
| Mounting Screw Set  Photo: For direct mount/dark gray | For frame mount/dark gray | LD9Z-6AGB | M4 screw (4 pcs)*, M4 spring washer (4 pcs)*, M4 plain washer (4 pcs)*, M5 screws (2 pcs), M5 spring washer (2 pcs), M5 plain washer (2 pcs), bracket (1 pc) |
| | For frame mount/light gray | LD9Z-6AGW | M4 screw (4 pcs)*, M4 spring washer (4 pcs)*, M4 plain washer (4 pcs)*, M5 screws (2 pcs), M5 spring washer (2 pcs), M5 plain washer (2 pcs), bracket (1 pc) |
| | For wall mount/dark gray | LD9Z-6AWB | M4 screw (L=20), M4 screw (L=8) (4 pcs)*, M4 spring washer (8 pcs)*, M4 plain washer (8 pcs)*, M4 nut (4 pcs), bracket (1 pc), gasket (1 pc) |
| | For wall mount/light gray | LD9Z-6AWW | M4 screw (L=20), M4 screw (L=8) (4 pcs)*, M4 spring washer (8 pcs)*, M4 plain washer (8 pcs)*, M4 nut (4 pcs), bracket (1 pc), gasket (1 pc) |
| | For direct mount/dark gray | LD9Z-6ADB | M5 screw (4 pcs)*, M5 spring washer (4 pcs)*, M5 plain washer (4 pcs)*, M5 nut (4 pcs), O-ring (4 pcs), gasket (1 pc) |
| | For direct mount/light gray | LD9Z-6ADW | M5 screw (4 pcs)*, M5 spring washer (4 pcs)*, M5 plain washer (4 pcs)*, M5 nut (4 pcs), O-ring (4 pcs), gasket (1 pc) |
| Round Base (Set Screw)  | Die-cast aluminum (chrome-plated) | LD9Z-6A | Round base (1 pc), M4 hexagon socket set screw (2 pcs) |
| L-shaped Bracket  | Metal SPHC (chrome-plated) | LD9Z-6AK | M22 plain washer (2 pcs), M22 nut (2 pcs), bracket (2-φ11 panel cut-out, 35mm mounting centers) (1 pc) are supplied. |
| | | LD9Z-6AK1 | M22 plain washers (2 pcs), M22 nut (2 pcs), bracket (2-φ9 panel cut-out, 20mm mounting centers) (1 pc) are supplied. |

* For dark gray housing, black screws and washers are supplied. For light gray housing, silver screws and washers are supplied.

LD6A LED SignalLights

Dimensions (Steady)

All dimensions in mm.

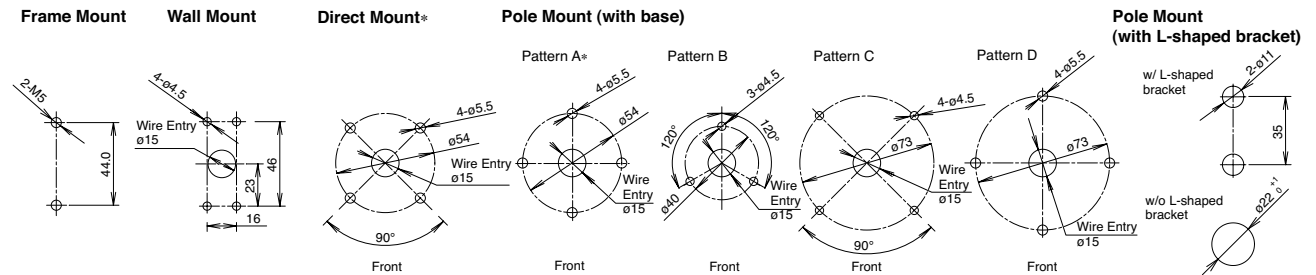


Dimension Table

Dimensions in mm.

| Tiers | Frame Mount (L1) | Wall Mount (L2) | Direct Mount (L3) | Pole Mount | |
|-------|------------------|-----------------|-------------------|--------------|--------------------------|
| | | | | w/ base (L4) | w/ L-shaped bracket (L5) |
| 1 | 156 | 156 | 98 | 408 | 372 |
| 2 | 186 | 186 | 128 | 438 | 402 |
| 3 | 216 | 216 | 158 | 468 | 432 |
| 4 | 246 | 246 | 188 | 498 | 462 |
| 5 | 276 | 276 | 218 | 528 | 492 |

Panel Cut-Out

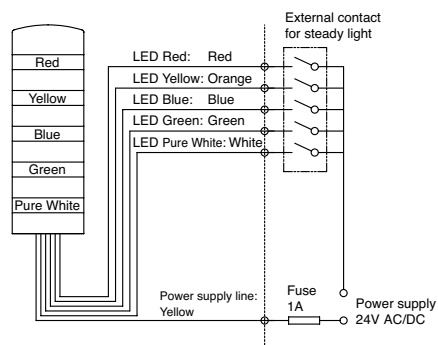


*Complies with IEC 60947-5-1.

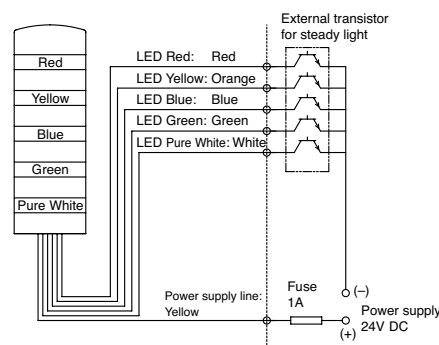
Dimensions in mm.

Wiring Example (Steady)

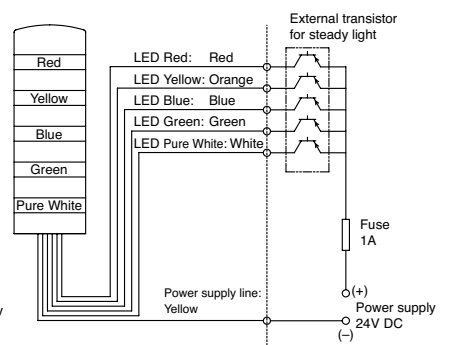
Mechanical Contacts



NPN Transistors



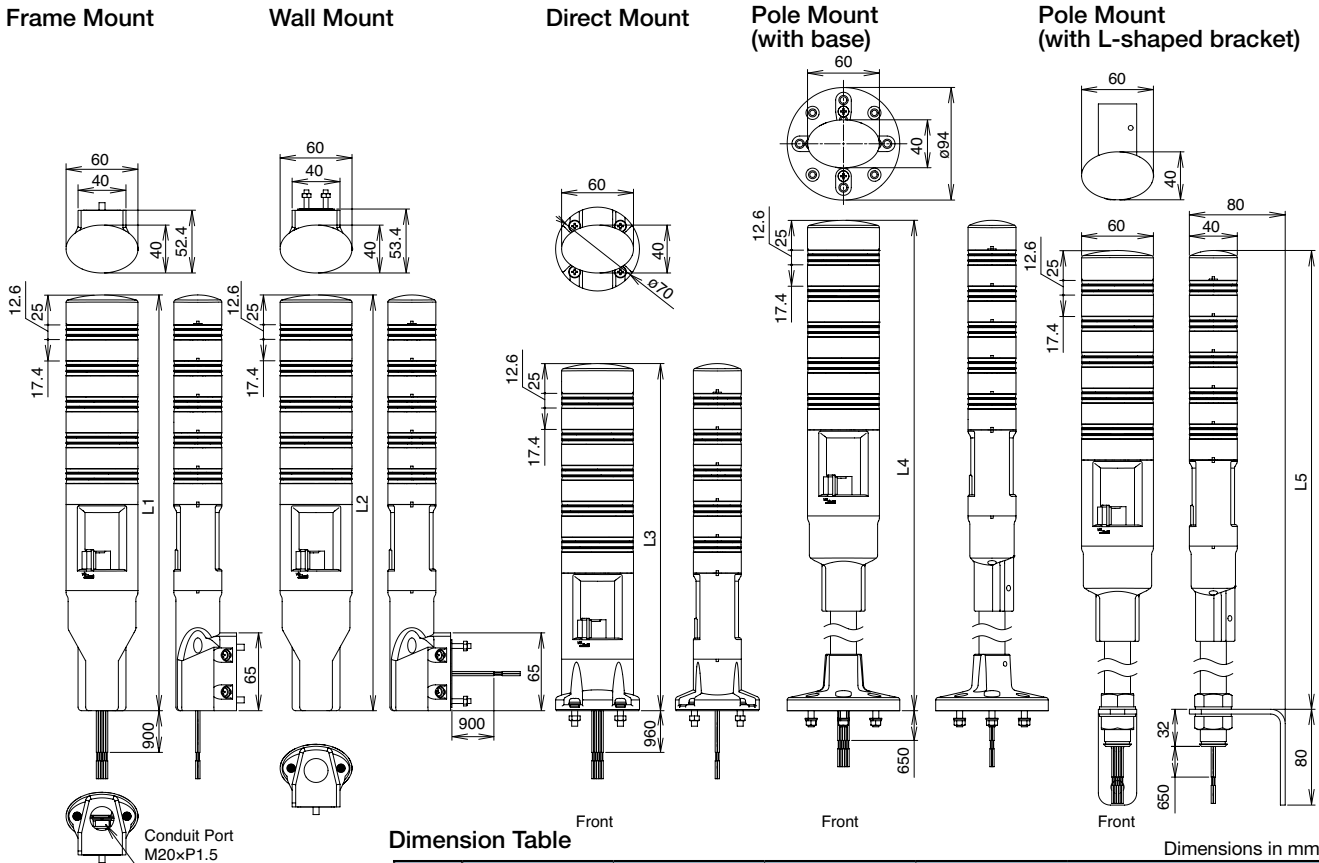
PNP Transistors



LD6A LED SignalLights

Dimensions (Steady/Flashing/Alarm)

All dimensions in mm.

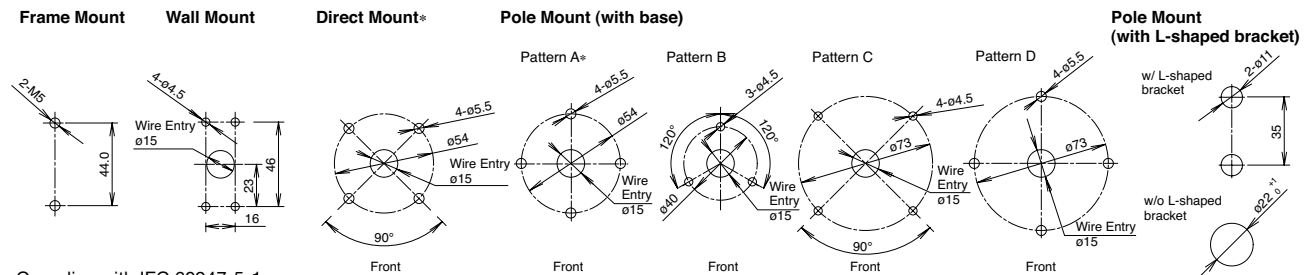


Dimension Table

Dimensions in mm.

| Tiers | Frame Mount (L1) | Wall Mount (L2) | Direct Mount (L3) | Pole Mount | |
|-------|------------------|-----------------|-------------------|-------------|-------------------------|
| | | | | w/base (L4) | w/L-shaped bracket (L5) |
| 1 | 228 | 228 | 170 | 480 | 444 |
| 2 | 258 | 258 | 200 | 510 | 474 |
| 3 | 288 | 288 | 230 | 540 | 504 |
| 4 | 318 | 318 | 260 | 570 | 534 |
| 5 | 348 | 348 | 290 | 600 | 564 |

Panel Cut-Out



*Complies with IEC 60947-5-1.

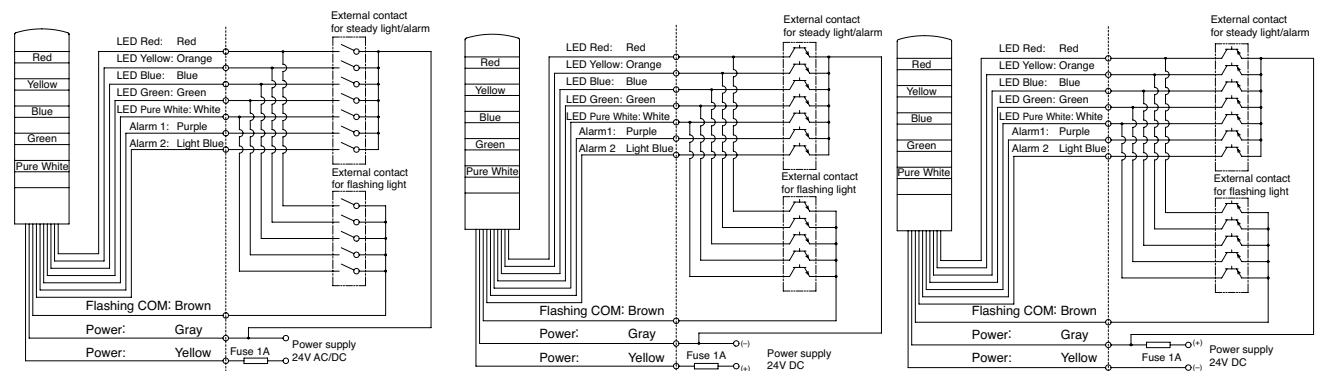
Wiring Example (Flashing and Alarm)

Dimensions in mm.

Mechanical Contacts

NPN Transistors

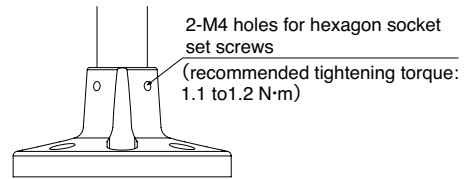
PNP Transistors



⚠ Safety Precautions

- Turn off the power to the LD6A before mounting, dismounting, wiring, and assembling the LED module. Make sure of correct wiring, otherwise electrical shocks or fire hazard may result.
- Mount the LD6A on a solid surface not subjected to vibrations.
- Do not mount the LD6A upside-down or horizontally.
- Do not leave the LD6A without a cap or unassembled.
- Install the supplied gasket, otherwise the waterproof characteristic is impaired.
- Do not apply any chemicals which may corrode the plastic materials.

- If the LD6A is subjected to strong vibrations, the hexagon socket set screw may become loose. Take measures to prevent loosening. (See the figure below.)



- Do not loosen a screw for which the tightening torque is not specified.

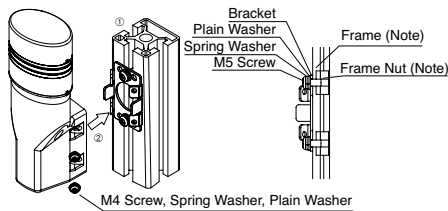
Operating Instructions

Mounting

- See drawing below on mounting of the LD6A.
- For panel cut-out, see pages 9 and 10.
- Face the LD6A to the front to make sure the alarm sound is clear. (Steady/flashing/alarm)

Frame Mounting

1. Insert two nuts in the frame, and attach the bracket using two M5 screws.
Recommended tightening torque: 2.6 to 2.7 N·m
2. Mount the LD6A to the bracket using four M4 screws.
Recommended tightening torque: 1.6 to 1.7 N·m



Note: See table below for typical examples of frames and nuts. Consult the manufacturer of the frame for the installation method of the frame nut.

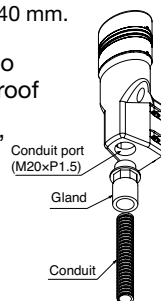
Examples of recommended frames and frame nuts

| Frame Size | Frame | Frame Nut | Manufacturer |
|------------------|---------|-------------------------------|----------------------------|
| □30 mm (Note) | SFF-302 | SFB-001 SFB-4B5 SFB-101 | SUS Corporation (Japan) |
| □40 mm | SFF-402 | SFB-008 SFB-4A5 SFB-108 | |

Note: The mounting bracket for the housing is 40 mm.

When using a frame mount type, be sure to use flexible conduit, otherwise the waterproof characteristic is impaired.

Refer to the "Example of Flexible Conduit" shown on the right.

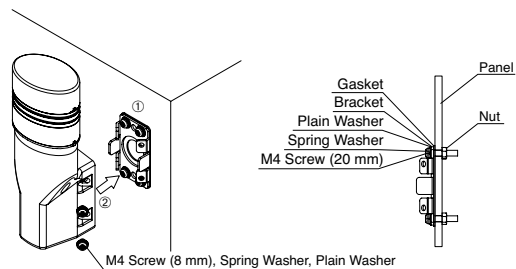


Example of Flexible Conduit

| | |
|-------------------|---------------|
| Conduit Port Size | M20 |
| Gland | AL16/M20/A/BL |
| Conduit | PAFS16BL |
| Manufacturer | Adaptaflex |

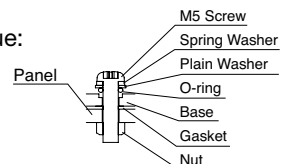
Wall Mounting

1. Make four tapped holes in the mounting panel and mount the bracket and gasket using four screws (M4 x 20).
Recommended tightening torque: 1.6 to 1.7 N·m
2. Mount the LD6A to the bracket using four screws (M4 x 8).
Recommended tightening torque: 1.6 to 1.7 N·m



Direct Mounting

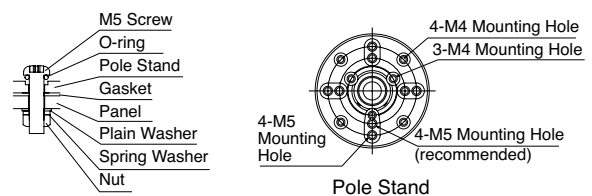
- Recommended tightening torque: 2.6 to 2.7 N·m



Pole Mounting (with base)

The pole mount type can be installed in four ways. The recommended mounting method (pattern A) is described below.

- Recommended tightening torque: 2.6 to 2.7 N·m (M5 screw)

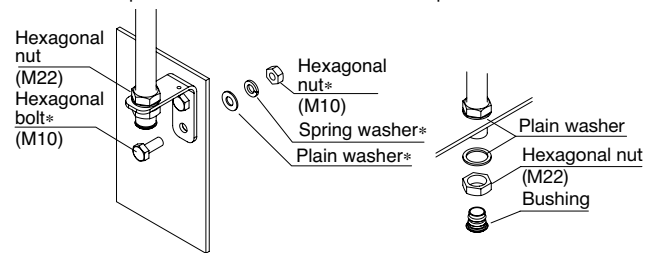


Pole Mounting (with L-shaped bracket)

1. When L-shaped bracket is used
Recommended tightening torque: 10 to 11 N·m (M10)
Recommended tightening torque: 25 to 26 N·m (M22)
2. When L-shaped bracket is not used
Remove the bushing, hexagonal nut (M22), plain washer, and L-shaped bracket from the LD6A and install in order of plain washer, hexagonal nut (M22), and bushing.
Recommended tightening torque: 25 to 26 N·m (M22)

LD6A LED SignalLight Towers

1. When L-shaped bracket is used 2. When L-shaped bracket is not used



The parts marked with * are not supplied and should be prepared by the user. The screw size depends on the L-shaped bracket size, as shown below.

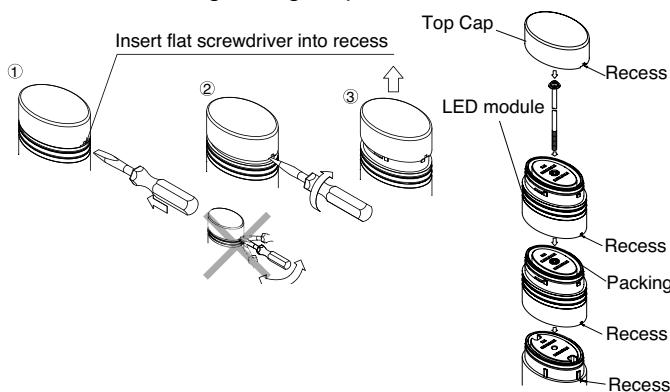
When using LD6A-□□□□-***** => M10

When using LD6A-□□□□1-***** => M8

Replacement/Expansion/Reduction of LED Modules

- Make sure to turn power off.
- When expanding/reducing the LED modules, make sure to use the center screw set of the correct length.
- Insert a flat screwdriver into the recess as shown below, lift up the cap, and remove the cap with your hands. Use a flat screwdriver with a tip of 1-mm thick and 7-mm wide maximum.
- Remove the center screw before reassembling the LED modules.
- When assembling the LED modules, make sure to align the recess of the cap with the recess of the LED module. Otherwise, damage may result.

Recommended tightening torque: 0.4 to 0.5 N·m.



- Note the correct orientation when assembling the LED modules.
- Tighten the screws to the recommended tightening torque. The LED module may be damaged if the screw is loose during operation.
- Do not touch the metal plug on the LED module. Otherwise, LED elements may be damaged due to static electricity.
- Use a maximum of 5 tiers.
- Select an optional screw of an appropriate length depending on the number of tiers.
- Do not remove the packing from the LED module. Otherwise, waterproof characteristics will be impaired.

Wiring

- For wiring, see the wiring diagrams on pages 9 and 10.
- Incorrect wiring may damage the internal circuit.
- Be sure to insulate unused wires.
- Connect a 1A fuse to the power line as shown in the Wiring Examples on pages 9 and 10.
- Use a UL listed external fuse holder.
- Use a class 2 power supply only.
- When using LED modules of the same color for two or more tiers, determine contact capacity in consideration of the LED current, because only one wire is used to light all tiers of the same color.
- Do not apply voltage to flashing (brown) lines.
- Do not connect flashing (brown) lines with the power lines. The internal circuit may be damaged.
- Do not turn on steady and flashing lines simultaneously.
- Do not turn on alarms 1 and 2 simultaneously.

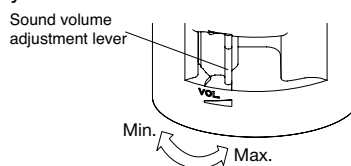
Wire Color

| Wire Color | Steady | Steady, Flashing, Alarm |
|------------|-------------------------|-------------------------|
| Red | LED Module – Red | LED Module – Red |
| Orange | LED Module – Yellow | LED Module – Yellow |
| Blue | LED Module – Blue | LED Module – Blue |
| Green | LED Module – Green | LED Module – Green |
| White | LED Module – Pure White | LED Module – Pure White |
| Purple | – | Alarm 1 |
| Light Blue | – | Alarm 2 |
| Brown | – | Flashing COM |
| Gray | – | Power Line |
| Yellow | Power Line | Power Line |

- For information on external contacts, see “External Contact Ratings” on page 6.

Sound Volume Adjustment

- Move the sound volume lever to the right and left to adjust the sound volume.
- The sound volume is at maximum when the lever is set to the right.
- The sound volume adjustment lever may be damaged if forcibly moved.



Highest Temperature Limitations

The highest temperature is limited to 50°C when all tiers are lit continuously in the following combinations:

1. Three tiers
 - Two or more tiers of blue and green (example: Red-Green-Blue, Green-Green-Red)
2. Four or five tiers (example: Red-Yellow-Green-Pure White, Red-Yellow-Blue-Green-Pure White)

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