LED SignaLight Towers



Ergonomically designed for visual and audible recognition







• See website for details on approvals and standards.

Stylish design with high functionality

Unique design — oval shape with striped design for clear visibility



Easy installation and assembly

Different mounting styles

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

Five mounting styles available.





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.

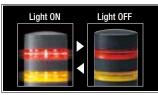


Steady / Flashing / Alarm models available

Flashing cycle complies with IEC standards

[1.75 Hz (approx. 105 times per second)]





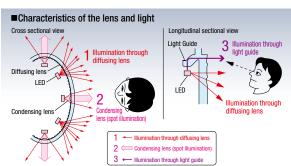
Unique powerful design with 360-degree sound field. Two alarm sound patterns available.

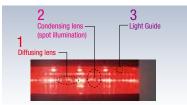
Alarm sound at 3.3 kHz and maximum sound level of 90 dB. With IDEC's unique resonant design, the SignaLight has a frequency that is most sensitive to the human ear and sends a clear sound over 360 degrees. Therefore, the sound recognition is improved as the alarm can be heard in a noisy environment,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



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 quide enhances the visibility when the SignaLight is viewed from below.



Clear lens type

LD6A LED SignaLight Towers

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

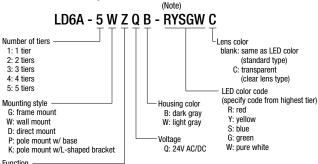


General Specifications

| General Specification | 1115 | | |
|-------------------------------------|---|--|--|
| 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/s², 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

blank: steady Z: steady/flashing/alarm



Note: Specify illumination color from the top tier.

Functional Specifications

| | • | | | | |
|-------|------------------------------|--|------------------|-----------|--|
| Ra | ted Insulation Voltage | 60V | | | |
| Ор | erating Voltage | 24V AC/DC ±10% | | | |
| Ra | ted Voltage (Ue) | 24V AC/DC | | | |
| LE | D Color Code | R (red), Y (yello G (green), W (p | ,, , ,, | | |
| | Illumination Color | R, Y | S, G | W | |
| la | Rated Current (per tier) | 25 mA | 30 mA | 20 mA | |
| | Power Consumption (per tier) | 0.6W | 0.75W | 0.5W | |
| LE | D 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) | | | |
| Fla | ashing Cycle (IEC 60073) | Approx. 105 fla | ishes per minute | (1.75 Hz) | |
| | Alarm Cycle | Alarm 1: approx. 700 times per minute Alarm 2: approx. 35 times per minute | | | |
| ۱Ę | Draw Current | 110 mA max. | | | |
| Alarm | Inrush Current | AC: 400 mA max. DC: 250 mA max. | | | |
| | Alarm Volume | 70 to 90 dB, at | 1m (volume adji | ustable) | |
| | Acoustic Frequency | Approx. 3.3 kHz | | | |

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

External Contact Ratings

| Г | | AC Contact Capacity | Current Capacity | 100 mA min. |
|-----|-------|---|---------------------|-------------|
| | | (per tier) | Dielectric Strength | 35V AC min. |
| ı | | DC Contact Capacity, | Current Capacity | 100 mA min. |
| - | | Transistor Capacity (per tier) | Dielectric Strength | 35V min. |
| - | | | Leakage Current | 0.1 mA max. |
| | Alarm | AC Contact Capacity (per alarm) | Current Capacity | 400 mA min. |
| - | | | Dielectric Strength | 35V AC min. |
| - | | DC Contact Capacity, Transistor Capacity | Current Capacity | 300 mA min. |
| - 1 | | | Dielectric Strength | 35V min. |
| | | (per alarm) | Leakage Current | 0.1 mA max. |

APEM

Control Boxes

Emergency Stop Switches Enabling Switches

Safety Products

Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22 ø30

Miniature

HW1Z

A Series

Circuit Protectors **Power Supplies** LED Illumination Controllers Operator

> Sensors AUTO-ID

Flush Silhouette

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Miniature

AP22 A Series

Control Boxes Emergency Stop Switches Enabling Switches Safety Products **Explosion Proof** Terminal Blocks

Assembled Products Package Quantity: 1 Steady

| | Mounting Style | | LED Color Code | Sleauy | | Steauy/Flashing/Alahii | |
|----------|---------------------------------------|---|----------------------|-------------|------------------|------------------------|------------------|
| | | | Tiers LED Color Code | Part No. | Weight (approx.) | Part No. | Weight (approx.) |
| | | 1 | R, Y, S, G, W | LD6A-1GQ∗-□ | 220g | LD6A-1GZQ*-□ | 310g |
| | | 2 | RY, RG | LD6A-2GQ*- | 260g | LD6A-2GZQ*- | 350g |
| | Frame Mount | 3 | RYS, RYG | LD6A-3GQ*- | 300g | LD6A-3GZQ*- | 390g |
| | | 4 | RYSG | LD6A-4GQ*- | 340g | LD6A-4GZQ*- | 430g |
| 1 | | 5 | RYSGW | LD6A-5GQ*- | 380g | LD6A-5GZQ*- | 470g |
| Š. | | 1 | R, Y, S, G, W | LD6A-1WQ*- | 225g | LD6A-1WZQ∗-□ | 315g |
| <u></u> | | 2 | RY, RG | LD6A-2WQ*- | 265g | LD6A-2WZQ*- | 355g |
| _ | Wall Mount | 3 | RYS, RYG | LD6A-3WQ*- | 305g | LD6A-3WZQ*- | 395g |
| <i>l</i> | | 4 | RYSG | LD6A-4WQ*- | 345g | LD6A-4WZQ*- | 435g |
|] | | 5 | RYSGW | LD6A-5WQ*- | 385g | LD6A-5WZQ*- | 475g |
| SS | | 1 | R, Y, S, G, W | LD6A-1DQ∗-□ | 185g | LD6A-1DZQ*- | 275g |
| - | | 2 | RY, RG | LD6A-2DQ*- | 225g | LD6A-2DZQ*- | 315g |
| f | Direct Mount | 3 | RYS, RYG | LD6A-3DQ*- | 265g | LD6A-3DZQ*- | 355g |
| 3 | | 4 | RYSG | LD6A-4DQ*- | 305g | LD6A-4DZQ*- | 395g |
| - 3 | | 5 | RYSGW | LD6A-5DQ*- | 345g | LD6A-5DZQ*- | 435g |
| - t | | 1 | R, Y, S, G, W | LD6A-1PQ∗-□ | 645g | LD6A-1PZQ*-□ | 735g |
| ι 3 | Dala Massat | 2 | RY, RG | LD6A-2PQ*- | 685g | LD6A-2PZQ*- | 775g |
| 3 | Pole Mount (with base) | 3 | RYS, RYG | LD6A-3PQ*- | 725g | LD6A-3PZQ*- | 815g |
| – 1 | (2400) | 4 | RYSG | LD6A-4PQ*- | 765g | LD6A-4PZQ*- | 855g |
| _ | | 5 | RYSGW | LD6A-5PQ*- | 805g | LD6A-5PZQ*- | 895g |
| 3 | | 1 | R, Y, S, G, W | LD6A-1KQ∗-□ | 640g | LD6A-1KZQ∗-□ | 730g |
| r s | | 2 | RY, RG | LD6A-2KQ*- | 680g | LD6A-2KZQ*- | 770g |
| - S | Pole Mount (with L-shaped bracket) | 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. \square : 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-RYSGW => LD6A-5GQW-RYSGWC

Steady/Flashing/Alarm

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

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.

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

Sunnlied Parts

| 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), | |
| Traine mount | 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)*, | |
| waii illoulit | 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)*, 0-ring (4 pcs), gasket (1 | | |
| Pole mount (with base) | ase) 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.

Control Boxes Emergency Stop Switches

Enabling Switches Safety Products **Explosion Proof** Terminal Blocks

Relays & Sockets Circuit

Protectors **Power Supplies** LED Illumination Controllers Operator Interfaces

Sensors

AUTO-ID

Sub-assembled Products

Base Module Package Quantity: 1

| Description Mounting Style | | Part No. | | Remarks |
|----------------------------|------------------------------------|-----------|-----------------------|------------------------|
| Description | Mounting Style | Steady | Steady/Flashing/Alarm | nemarks |
| | Frame Mount | LD6A-0GQ* | LD6A-0GZQ* | |
| | Wall Mount | LD6A-0WQ* | LD6A-0WZQ* | A top cap is supplied. |
| | 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 grow housing | LD9Z-6ALB-□ | R, Y, S, G, W | Color lens |
| | For dark gray housing | LD9Z-6ALB-□C | R, Y, S, G | Clear lens |
| For light grow housing | For light grow housing | LD9Z-6ALW-□ | R, Y, S, G, W | Color lens |
| | For light gray housing | 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 |
|--|---------|-----------|--|
| | 1 tier | LD9Z-6AC1 | |
| • | 2 tiers | LD9Z-6AC2 | |
| 00 | 3 tiers | LD9Z-6AC3 | A plain washer and a spring washer are supplied. |
| Material CM/DMO (trivelent along star) | 4 tiers | LD9Z-6AC4 | |
| Material: SWRM3 (trivalent chromate) | 5 tiers | LD9Z-6AC5 | |

Ordering Examples

When ordering LD6A-3PQW-RYG as sub-assembled parts, specify the following parts: [Ex. 1]

Pole mount (with base), steady, light gray housing, 3 tiers, color lens LED modules with Red, Yellow, and Green LED

LD6A-0PQW Base module (pole mount with base, steady, light gray housing) 1 piece LED module (red LED with color lens, light gray housing) LD9Z-6ALW-R 1 piece 1 piece LED module (yellow LED with color lens, light gray housing) LD9Z-6ALW-Y LED module (green LED with color lens, light gray housing) LD9Z-6ALW-G 1 piece Center screw set (3 tiers) LD9Z-6AC3 1 piece

When ordering LD6A-5WZQB-RYSGWC as sub-assembled parts, specify the following parts: [Ex. 2]

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 | For dark gray | LD9Z-6ATB | A tan can is supplied with a base module |
| (ABS resin) | For light gray | LD9Z-6ATW | A top cap is supplied with a base module. |
| Mounting Screw Set | 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) |
| 0. | 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) |
| Photo: For direct mount/ | 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) |
| dark gray | 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 | LD9Z-6AK | M22 plain washer (2 pcs), M22 nut (2 pcs), bracket (2-ø11 panel cut-out, 35mm mounting centers) (1 pc) are supplied. |
| Didditt. | (chrome-plated) | LD9Z-6AK1 | M22 plain washers (2 pcs), M22 nut (2 pcs), bracket (2-ø9 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.

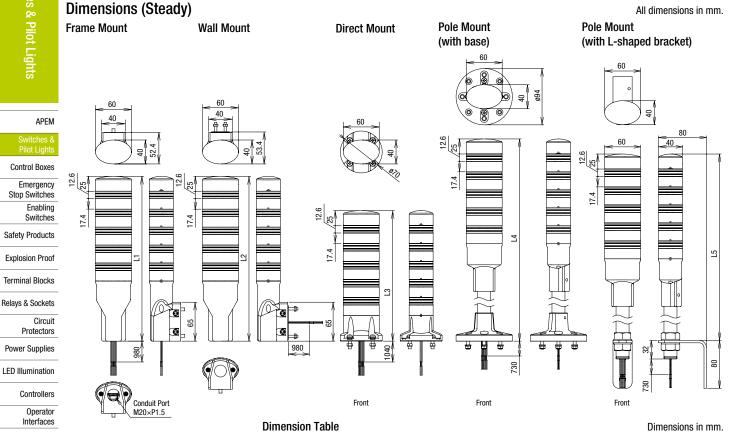
Flush Silhouette ø16 ø22

ø30

Miniature

AP22 A Series

HW1Z



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

Flush Silhouette ø16 ø22 ø30

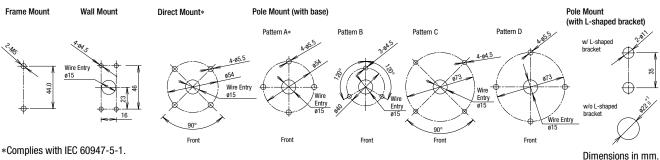
Sensors

AUTO-ID

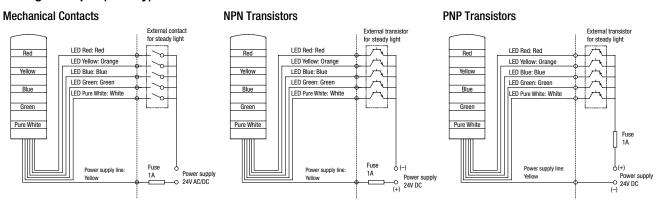
Miniature

HW1Z AP22 A Series

Panel Cut-Out



Wiring Example (Steady)



Control Boxes

Stop Switches Enabling Switches Safety Products

Terminal Blocks Relays & Sockets

LED Illumination

Controllers Operator Interfaces

Sensors

AUTO-ID

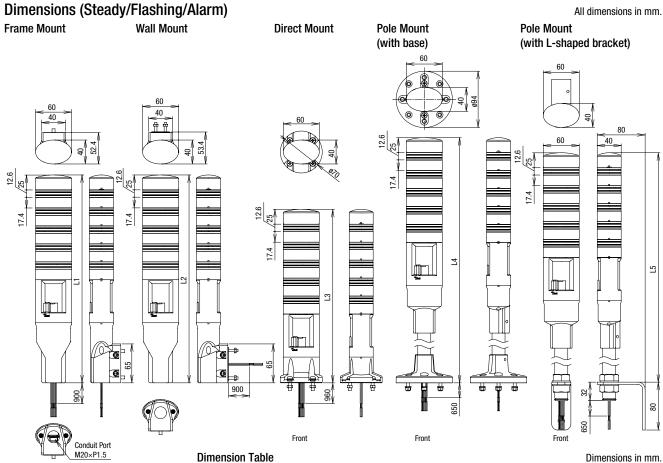
Flush Silhouette

ø16

ø22

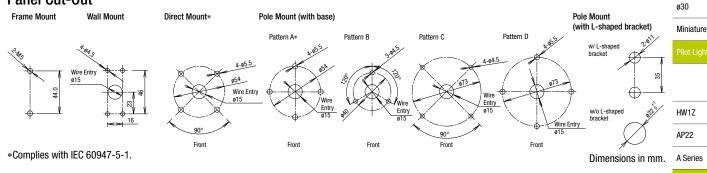
Circuit Protectors Power Supplies

Emergency

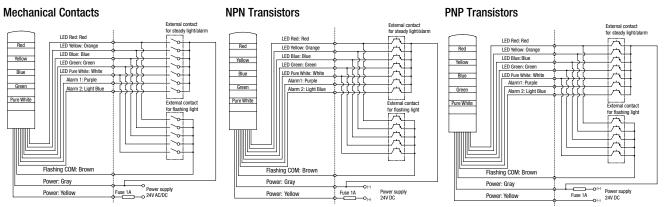


Wall Mount Pole Mount Frame Mount **Direct Mount** w/base (L4) w/L-shaped bracket (L5) (L1) (L2)(L3)228 228 170 480 444 2 258 258 200 510 288 230 540 3 288 504 318 318 260 570 534 4 348 348 290 600 564

Panel Cut-Out



Wiring Example (Flashing and Alarm)



Pilot Lights

Control Boxes Emergency

Stop Switches

Enabling
Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit

Protectors
Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

Flush Silhouette

ø16

ø30

ø22

Miniature

Pilot Lights

HW1Z AP22

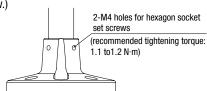
A Series

LD6A

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 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

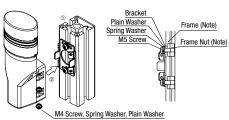
- See drawing below on mounting of the LD6A.
- For panel cut-out, see B-401 and B-402.
- Face the LD6A to the front to make sure the alarm sound is clear. (Steady/flashing/alarm)

Frame Mounting

 Insert two nuts in the frame, and attach the bracket using two M5 screws.

Recommended tightening torque: 2.6 to 2.7 N·m

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.

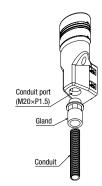
Examples of recommended frames and frame nuts

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

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.



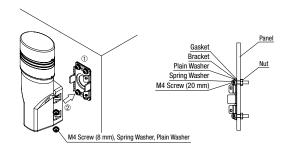
Example of Flexible Conduit

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

Wall Mounting

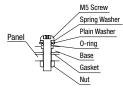
- Make four tapped holes in the mounting panel and mount the bracket and gasket using four screws (M4 x 20).
 Recommended tightening torque: 1.6 to 1.7 N·m
- Mount the LD6A to the bracket using four screws (M4 x 8).

Recommended tightening torque: 1.6 to 1.7 N·m



Direct Mounting

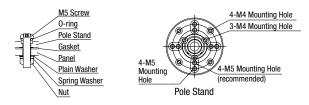
Recommended tightening torque: 2.6 to 2.7 N⋅m



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:

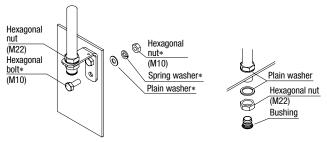
2.6 to 2.7 N·m (M5 screw)



Pole Mounting (with L-shaped bracket)

- When L-shaped bracket is used Recommended tightening torque: 10 to 11 N·m (M10) Recommended tightening torque: 25 to 26 N·m (M22)
- 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)

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

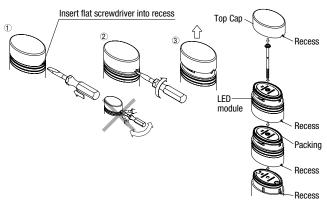


The parts marked with * are not supplied and should be prepared by the user. The screw size depends on the L-shaped bracket size, as shown below. When using LD6A- \square K \square Q \square -***** => M10 When using LD6A- \square K \square Q \square 1-***** => M8

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 maybe 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 B-401 and B-402.
- · 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 B-401 and B-402.
- 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.

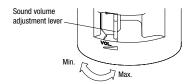
Wire Color

| 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 B-398.

Sound Volume Adjustment

- . Move the sound volume lever to the right and left to adjust the sound
- 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) APEM

Control Boxes

Emergency Stop Switches Enabling

Safety Products

Switches

Explosion Proof

Terminal Blocks Relays & Sockets

Circuit Protectors

Power Supplies LED Illumination

Controllers

Operator

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22 ø30

Miniature

HW1Z

AP22 A Series