






# LED Signal Tower Series'

Page number	Page 55		Page 61					
Model Name	Programmable LED Signal Tower		Modular LED Signal Tower					
Model	LA6		LR4		LR5		LR6	
Product image								
Rated Voltage	24V DC	100 - 240V AC	24V DC	100 - 240V AC	12V DC	24V DC	24V DC	100 - 240V AC
Size (mm)	φ 60		φ 40		φ 50		φ 60	
IP	65 (54 for B)		65 (54 for LJ type)		65 (54 for LJ type)		65 (54 for LJ type)	
Buzzer sound pressure in dB (at a distance of 1m)	85		85		80	85	88	
Body	ABS		Polycarbonate		Polycarbonate		Polycarbonate	
Globe	PC		Polycarbonate		Polycarbonate		Polycarbonate	
Light Source	LED		LED		LED		LED	
Unit structure *1			⊙		⊙		⊙	
Terminal Block	○				○ (Body Unit)			
Open collector	NPN/PNP		NPN/PNP	NPN	NPN/PNP		NPN/PNP	NPN
CE Marking	○		○		○		○	
RoHS	○		○		○		○	
UL Standard	○ 24V model only		○		○		○	

Page number	Page 77	Page 79	Page 81	Page 83	Page 85
Model Name	Signal Tower with switch box	Slim LED Signal Tower	Slim LED Signal Tower	Slim LED Signal Tower	LED Signal Tower
Model	HSST	ME-A/ MES-A	MP/MPS	MP-C/MPS-C	LS7
Product image					
Rated Voltage	100 - 240V AC*	24V DC	24V AC/DC	24V DC	24V DC
Size (mm)	φ 50	φ 25	φ 30	φ 30	φ 70
IP	54 (20 switch box)	42	65	65	65 (54 for FB and B)
Buzzer sound pressure in dB (at a distance of 1m)					85
Body	Polycarbonate	Aluminum	ABS	ABS	ABS
Globe	Polycarbonate	Polycarbonate	AS	AS	AS
Light Source	LED	LED	LED	LED	LED
Unit structure *1	⊙	○	○	○	
Terminal Block					
Open collector		NPN	○ (DC only)	○	○
CE Marking		○	○	○	○
RoHS	○	○	○	○	○
UL Standard	○	○	○	○	○

\*1 ⊙: One-touch unit structure ○: Unit structure \* With AC adaptor

Page number	Page 61	Page 88			Page 90	Page 93		Page 95		
Model Name	Modular LED Signal Tower	Large LED Signal Tower			Wall-Mounted LED Signal Tower	Wall-Mounted LED Signal Tower		Modular Signal Tower		
Model	<b>LR7</b>	<b>LGE</b>			<b>WE/WEP</b>	<b>WME-D</b>		<b>KUS</b>		
Product image										
Rated Voltage	24V DC	24V AC/DC	100V AC	220V AC	24V AC/DC	24V DC	100 - 240V AC	24V AC/DC	100V AC	220V AC
Size (mm)	φ 70	φ 100			W90 x D37.5	W70 x D80		□70		
IP	65	54			65 (54 for FB)	54		54		
Buzzer sound pressure in dB (at a distance of 1m)	90	85			90	90		80		
Body	Polycarbonate	ABS			ABS	Polycarbonate		ABS		
Globe	Polycarbonate	Polycarbonate			Polycarbonate	Polycarbonate		Polycarbonate		
Light Source	LED	LED			LED	LED		LED / Bulb		
Unit structure *1	⊙	○				○		○		
Terminal Block	○(Body Unit)									
Open collector	NPN/PNP	○ (DC only)			○ (DC only)	NPN/PNP	NPN	○(C and FC model)		
CE Marking	○	○			○	○				
RoHS	○				○	○		KUS-24 (F)○		
UL Standard	○				○	○		○		

\*1⊙: One-touch unit structure ○: Unit structure

\* For specifications, see the product page.

# LA6

■ 24V DC model



\* In Smart Mode you can use the flashing operation.

Ultra-bright multi-color LEDs capable of producing 21 distinct colors.  
Built-in audible alarm is capable of producing 11 distinct tones.  
Single part number - streamlines your supply chain.  
Smart Mode allows users to create light motion patterns to more clearly define more complex equipment statuses.  
USB port to locally program device.  
Available in DC24V and AC100-240V (M2 type)

■ Examples

- Display duration of equipment down-time - Raise awareness to decrease non-operational time
- Display time remaining for automated equipment process - Reduce stress of workers responsible for multiple equipment
- Display takt time for an assembly line - Stabilize quality by leveling work speed
- Display the work speed for manual process lines - Raise awareness of the number of processes involved by displaying takt time
- Display remaining material by combining sensors - Assist with refills of outdoor tanks or cutting oil
- Display detailed information on the equipment status - Remotely review information shown on the operation panel

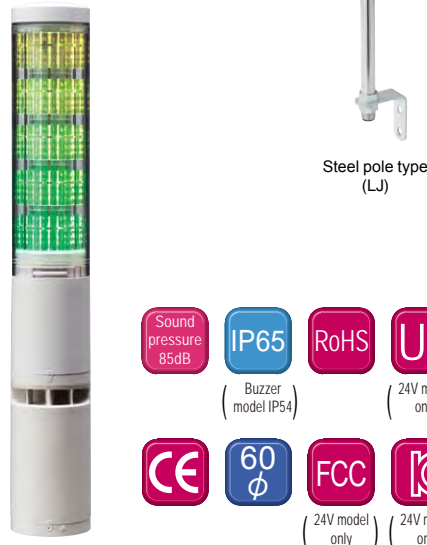
Model	Rated Voltage	LED Tiers	Body Color	Specifications
LA6-3DTNWB-RYG	24V DC	3 tiers	Off-white	Direct mount, terminal block, with buzzer
LA6-3DTNWN-RYG			Off-white	Direct mount, terminal block, without buzzer
LA6-3DTNUB-RYG			Silver	Direct mount, terminal block, with buzzer
LA6-3DTNUN-RYG			Silver	Direct mount, terminal block, without buzzer
LA6-3DLJWB-RYG			Off-white	L-type Pole, Cabtyre, with buzzer
LA6-3DLJWN-RYG			Off-white	L-type Pole, Cabtyre, without buzzer
LA6-3DWJWB-RYG			Off-white	Direct mount, Cable, with buzzer
LA6-3DWJWN-RYG			Off-white	Direct mount, Cable, without buzzer
LA6-3DWJUB-RYG			Silver	Direct mount, Cable, with buzzer
LA6-3DWJUN-RYG			Silver	Direct mount, Cable, without buzzer
LA6-5DTNWB-RYGBC		5 tiers	Off-white	Direct mount, terminal block, with buzzer
LA6-5DTNWN-RYGBC			Off-white	Direct mount, terminal block, without buzzer
LA6-5DTNUB-RYGBC			Silver	Direct mount, terminal block, with buzzer
LA6-5DTNUN-RYGBC			Silver	Direct mount, terminal block, without buzzer
LA6-5DLJWB-RYGBC			Off-white	L-type Pole, Cabtyre, with buzzer
LA6-5DLJWN-RYGBC			Off-white	L-type Pole, Cabtyre, without buzzer
LA6-5DWJWB-RYG			Off-white	Direct mount, Cable, with buzzer
LA6-5DWJWN-RYG			Off-white	Direct mount, Cable, without buzzer
LA6-5DWJUB-RYG			Silver	Direct mount, Cable, with buzzer
LA6-5DWJUN-RYG			Silver	Direct mount, Cable, without buzzer
LA6-5AWJWB-RYGBC	100 - 240V AC		Off-white	Direct mount, Cabtyre, with buzzer

## Specifications

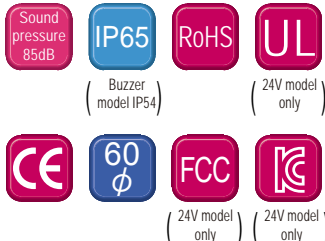
Model	LA6-□□□□□□ (see model code)			LA6-5AWJWB		
Rated Voltage	24V DC			100 - 240V AC (50Hz / 60Hz)		
Operating Voltage Range	Rated Voltage ±10%			90 - 250V AC (50Hz/60Hz)		
Rated Power Consumption	Standard	LA6-5D□□□□-RYGBC	5W	LA6-5D□□□□-RYGBC	6.5W	
	Maximum	LA6-3D□□□□-RYG3.5W		LA6-3D□□□□-RYG4.5W		
		LA6-5D□□□□-YYYYY7W		LA6-5D□□□□-YYYYY8W		
		LA6-3D□□□□-YYY4.5W		LA6-3D□□□□-YYY5.5W		
	Buzzer sound: No.1, maximum volume					
Signal Wire Current	Maximum 70mA			Maximum 20mA		
Ambient Operating Temperature	-25°C to +60°C					
Storage Ambient Temperature	-25°C to +60°C					
Mounting location	Indoors					
Protection Rating	IP65 (buzzer model: IP54) IEC 60529					
	Mounted in upright position					
Display color	Red (1000mcd), amber (1700mcd), green (2600mcd), blue (1000mcd), white (1250mcd) purple (800mcd), pink (850mcd), lemon yellow (2150mcd), sky blue (2150mcd)					
Flashing Rate	60±2 /minute					
Buzzer Sound (Frequency Typ)	No.1	2400Hz	Beep (continuous beep)	No.2	2400Hz	Fast Intermittent (beep 0.05 sec. / off 0.05 sec.)
	No.3	2400Hz	Slow Intermittent (beep 1.5 sec. / off 1.5 sec.)	No.4	2400Hz	Medium Intermittent (beep 0.5 sec. / off 0.5 sec.)
	No.5	3600Hz	Beep (continuous beep)	No.6	3600Hz	Fast Intermittent (beep 0.05 sec. / off 0.05 sec.)
	No.7	3600Hz	Slow Intermittent (beep 1.5 sec. / off 1.5 sec.)	No.8	3600Hz	Medium Intermittent (beep 0.5 sec. / off 0.5 sec.)
	No.9	2400Hz & 3375Hz	Fast Alternating Intermittent (0.25sec0.25sec)	No.10	2400Hz & 3600Hz	Fast Alternating Intermittent (0.25sec0.25sec)
	No.11	4000Hz & 4800Hz	Medium Alternating Intermittent (0.5sec0.5sec)			
	Sound Pressure Level	Maximum: 85dB				
		Buzzer sound No.1, in front of the buzzer aperture at a distance of 1 m				
	Volume Control	Four setting levels (Factory default: Maximum)				
	Data Transmission Interface	Main Unit	USB micro-B socket, Female			
		Transmission Cable	USB2.0 / 1.1 interface, Transmission rate: USB2.0 / 1.1 / 1.0 Micro USB Cable (not included), Data Communication / Charging Cable Connector Type: USB (Type A) Male - USB (micro-B) Male			
Data Creation Application Software	Proprietary Application Software (Download from our website)					
Mass (±10%)	LA6-3DTN□	480g	LA6-5DTN□B	590g	LA6-5AWJWB	740g
	LA6-3DTN□N	420g	LA6-5DTN□N*	530g		
	LA6-3DWJ□	450g	LA6-5DWJ□B*	560g		
	LA6-3DWJ□N	400g	LA6-5DWJ□N	510g		
	LA6-3DLJ□	980g	LA6-5DLJ□B	1090g		
	LA6-3DLJ□N	930g	LA6-5DLJ□	1040g		
Conformity standards	UL508, CSA-C22.2 No. 14		EMC Directives EN 61000-6-4, EN 61000-6-2		EMC directives EN61000-6-3, EN61000-6-2	
	FCC Part15 Subpart B Class A		KC (KN 61000-6-4, KN 61000-6-2)		Low Voltage Directives IEC/EN 60947-5-1, EN62471	
	RoHS Directive EN 50581				RoHS Directive EN 50581	
References	Conforms to CE Marking UL Recognized Component (File No.E215660)				Conforms to CE Marking	

\* Overseas only

■ 100 - 240V AC model



Steel pole type (LJ)



Colors	Signal Tower Mode: 9 colors / Smart Mode: 21 colors
Globe	Polycarbonate resin, high shock resistance and heat resistance

Network  
Signal Tower  
Signal Light  
Revolving Warning Light  
Cube Tower  
Audibles  
Hybrid Signaling Devices  
LED Illumination  
Options

# New Information Display Style

A new concept is born for the Information Display Terminal.

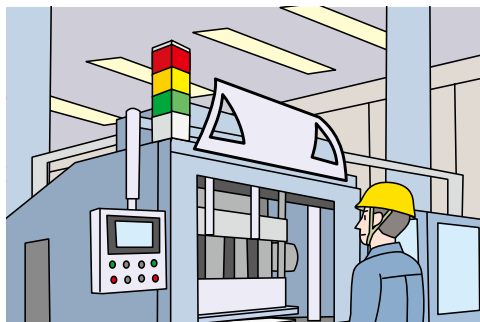
Previous products notified us of the status of equipment with lights and sound only. But with our new products, you can also display the equipment operation process.

As the CPU is embedded in the Main Unit, our new units do not require an external control program. By combining a maximum 21 luminous colors, 3 operating modes, and 11 buzzer sounds, you can display all kinds of information, such as time, amounts remaining, and levels.

As a result, without a large capital investment you can overcome challenges such as "managing the cycle time of equipment" and "visualizing non-operating time", which are common pain-points for manufacturing sites.

An information display terminal for the visualization age, the LA6 can solve –with your imagination– all sorts of problems.

## Traditional Information Display



### Display Equipment Status

Traditional information displays showed only the equipment status. There was no understanding about the equipment status provided in real time.

	Signal Tower	Information Signal Tower LA6
Colors	Maximum 5 Colors	Maximum 21
Color Setting	Static	Flexible
Sound	2 tones	11 tones

## New Information Display



### Display elapsed time until complete

You can visualize the progress, amount of material remaining, and so on, in real time. By recognizing the progress of processes and amount of various materials that remain, you can understand which equipment needs attention first, and reduce the stress of workers who are responsible for multiple equipment. You can also display the amount of time that has elapsed from when a problem occurred, allowing you to respond quickly.



- Work Progress Time
- Elapsed Time for Problem
- Amount Remaining
- Level
- All Tiers Identification

Network

Signal Tower

Signal Light

Revolving Warning Light

Cube Tower

Audibles

Hybrid Signaling Devices

LED Illumination

Options



# LA6-5DLJWB-RYGBC

LED Tiers 3: 3 tiers 5: 5 tiers	Rated Voltage A: 100 - 240VAC D: 24VDC	Mounting / Wiring Specifications TN: Direct mount, terminal block LJ: Steel pole & Mounting Angle, Cable WJ: Direct mount, Cable	Body Color W: Off-white U: Silver	Flashing / Buzzer model B: Flashing and Buzzer available N: No flashing/buzzer	Color RYG: 3 tiers RYGBC: 5 tiers
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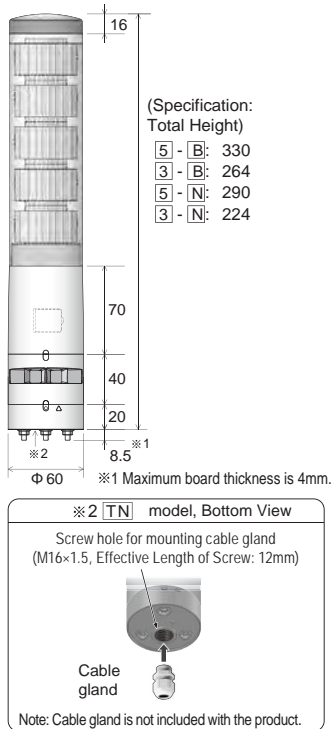
\* You can change the color of each tier after purchase.  
\* LJ model does not have U (Silver) setting.

## Example: LA6-5DTNUB-RYGBC

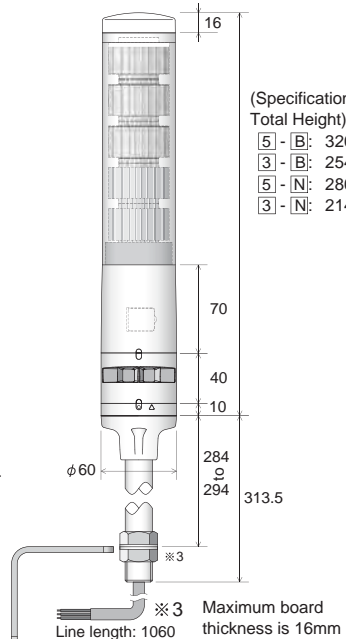
- LED Tiers: 5
- Mounting / Wiring Specifications: Direct Mount, Terminal Block
- Body Color: Silver
- Colors: Red, Amber, Green, Blue, White
- Flashing / Buzzer model: Flashing and Buzzer available
- Rated Voltage: 24V DC

## Dimensions (mm)

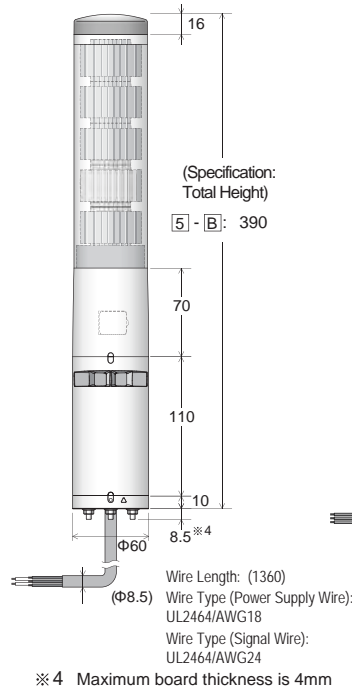
■ **TN** Direct mount, Terminal block model



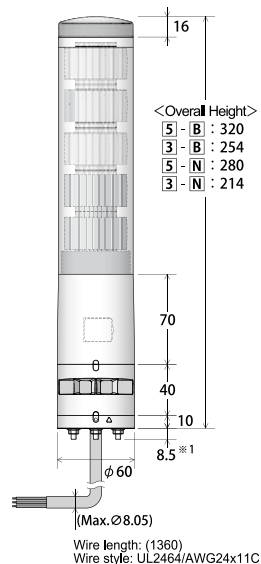
■ **LJ** Steel pole & Mounting Angle Cable, Specifications



■ **WJ** Direct mount, Cable model  
**A** AC 100 - 240V AC model

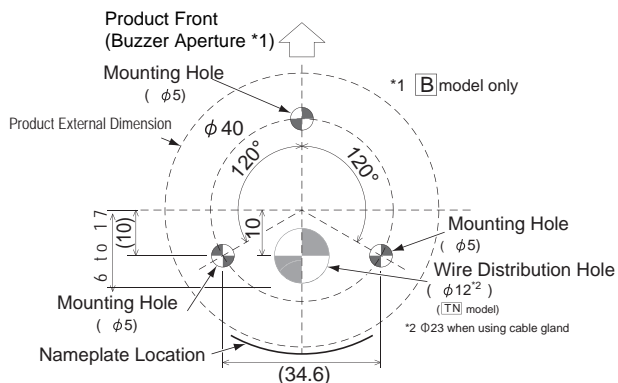


■ **WJ** Direct mount, with cable connection  
**D** 24V DC Type

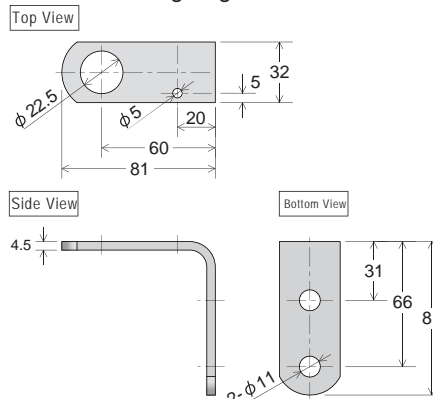


**TN** Direct mount, Terminal block model

**WJ** Direct mount, Cable model Installation Dimension Drawings

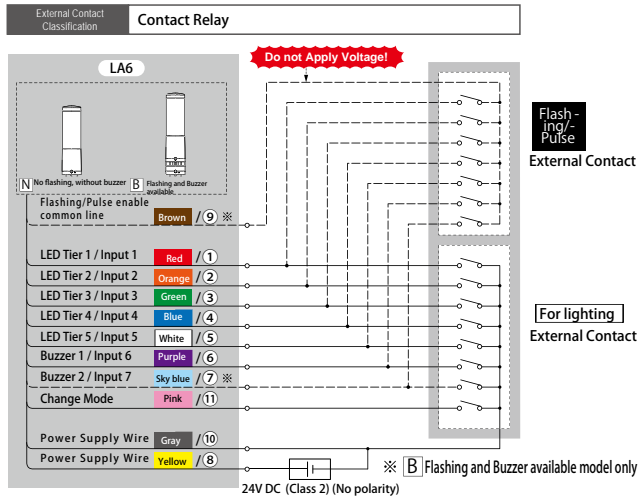


**LJ** The following diagram shows the dimensions of the Mounting Angle included with the Steel Pole & Mounting Angle model.

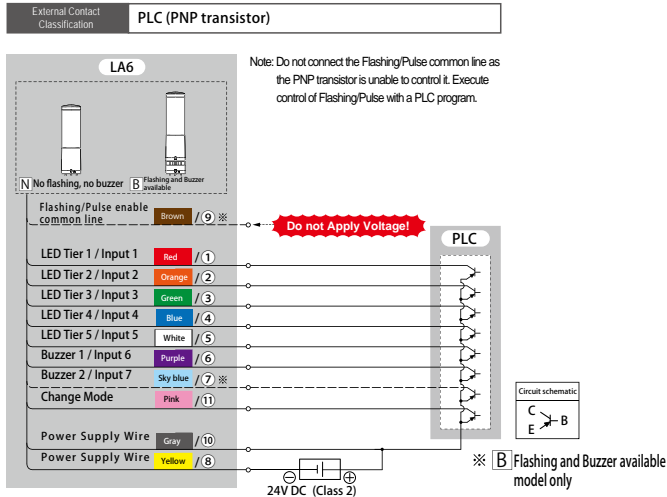
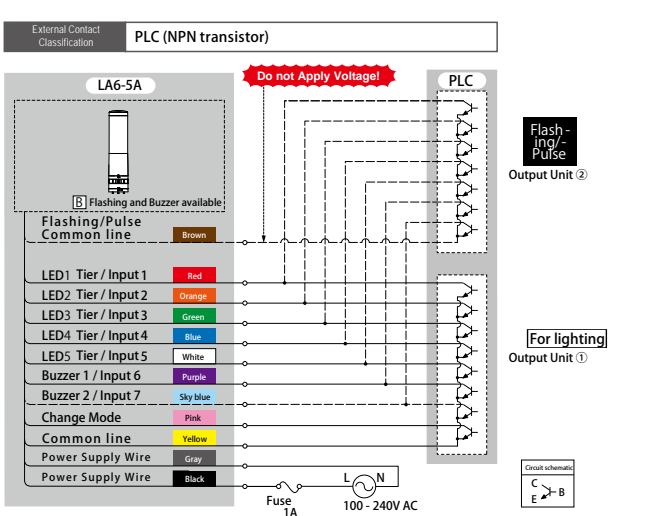
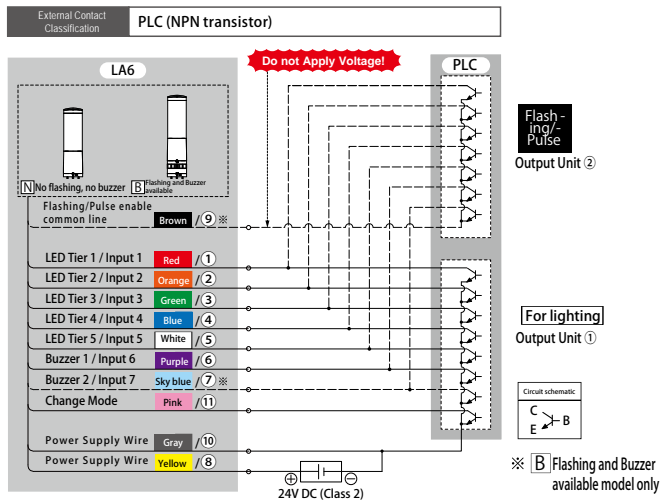
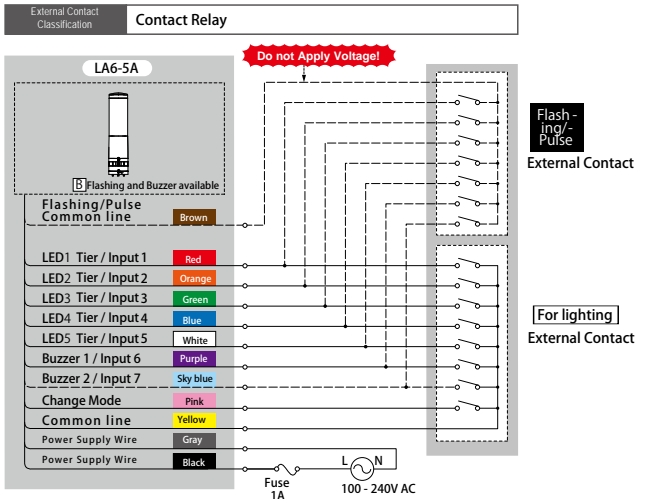


# Wiring Diagram

## 24V DC model



## 100 - 240V AC model



**Wiring Example / Legend**

LED Tier 1 / Input 1 **Red / ①**

Function Name [Signal Tower Mode] / [Smart Mode]

Pin Number [TN Direct Mount, Screw-less Terminal Block model]

The color of wire (Cable model only)

Note: The color of the wire does not correspond to the color of the LED light.

**Rated Fuse Current**

250V / 1 A

5 x 20 mm Fast-blow glass tube fuse

**Inrush Current value (cold start)**

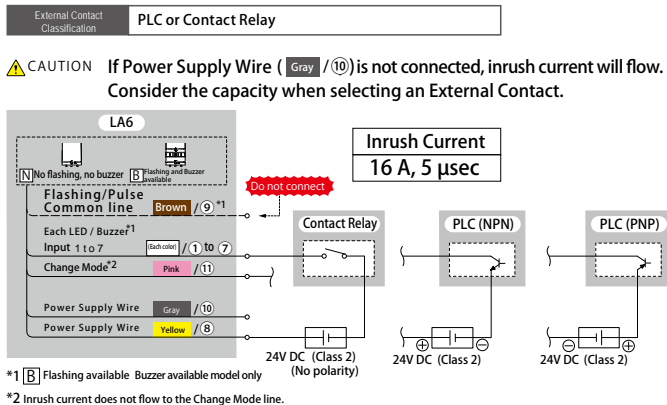
With Ambient Operating Temperature 25°C	16 A, 2 ms
With Ambient Operating Temperature 50°C	50 A, 2 ms

**Signal Wire Contact Capacity**

Current Capacity	100 mA or higher
Withstand Voltage	35V DC or more
Leakage Current	0.1 mA or less
Voltage when ON (V <sub>sat</sub> )	1V or less

**NOTICE**

If you are not using a regulated power supply, use a fuse that meets or exceeds Class CC.



**When using Smart Mode (Mode Change Pink)**

	① Time Trigger Type	② Pulse Trigger Type	③ Single Display Type
Input 1 <b>Red</b>	Display Input (Maximum 15 binary inputs)	Display Input (Maximum 15 binary inputs)	Display Input (Maximum 31 binary inputs)
Input 2 <b>Orange</b>			
Input 3 <b>Green</b>			
Input 4 <b>Blue</b>			
Input 5 <b>White</b>			
Input 6 <b>Purple</b>	Mute	Mute	Mute
Input 7 <b>Sky blue</b>	Clear	Clear	Clear
Switch <b>Pink</b>	At Input		

\* For connection diagrams, please see the Instruction Manual.

Network  
Signal Tower  
Signal Light  
Revolving Warning Light  
Cube Tower  
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Options

Visit our LA6 product microsite to see the LA6 Series in action.

www.patlite.com/la6



Product site

\* Design of the site may change without notice.

You can download "Editing Software" for free from the product site. Simplify creating and implementing your program.

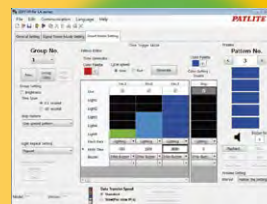
Use the editing software to set up "luminous colors" and "illumination patterns".



1. Select from the top page.



2. Proceed to the software download page.

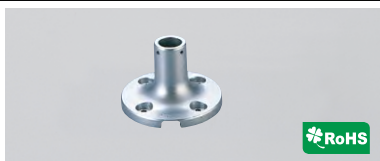


3. Download and Setup

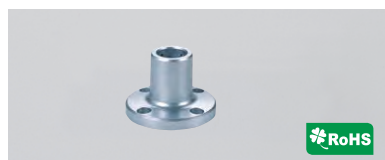
■ Optional Parts



Mounting Pole: SZ-70L



Circular mounting Bracket: SZ-010



Circular mounting Bracket: SZ-016A



Wallmount Bracket: SZK-003W



Stationary installation bracket (magnetic installation):  
SZW-060W  
Supported type: LA6-5DTNWB-POE  
LA6-5AWJWB-RYGBC

■ Replacement Parts



**Head Cover**  
Off-white B31310001-7F1  
Silver B31310001-9F1



**USB Cover**  
Off-white B22100071-7F1  
Silver B22100071-9F1



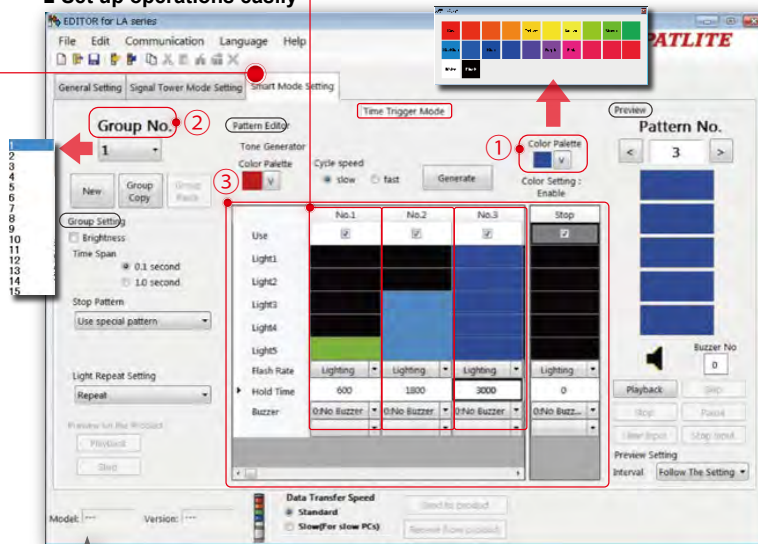
**Waterproof Ring B (2 pieces)**  
B25110042-F1



**Pole Bracket (Off-white only)**  
**(Pole waterproof ring, screws included)**

B22210134-7F1  
\* A waterproofing ring for the pole is available.

■ Set up operations easily



\* The screen above may be different from the actual screen (displayed buttons may vary depending on usage)

① Color settings (maximum 21 colors)

Select any color from the 21 color palette.

② Group registration (maximum 15 groups\*)

After setting up operations, you can register a series of operations as a group. Register a maximum 15 groups.

\* You can register up to 31 groups in a Single Display Type.

③ Operation Settings (maximum 63 patterns)

Set up operations by selecting colors (21 colors), flashing frequency, illumination duration \* (maximum 3,600 seconds), and buzzer sound (11 tones).

\* In Signal Tower mode, you can select from 9 colors and only 3 buzzer sounds.

● Settings

- Group Settings (various detailed setup is possible)

- \*Dimmer
- \*Time span (0.1 / 1.0 seconds)
- \*Repeating Light Setting

- Generating sign patterns (9 colors)

- \*Color selection, cycle speed (slow / fast)

- Simulation

You can verify the luminous patterns on applications without having to send data to the actual machine.

- Transmission with actual machine

Not only can you send data to the machine, but you can also load data from the machine.

\* Even when the machine is off, you can still send data with USB bus power only.

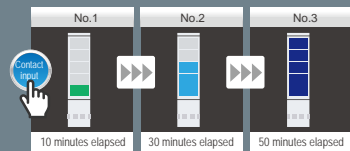
Smart Mode



1. Time Trigger Type

Maximum Display Patterns	63 Patterns
Maximum Number of Groups	15 Groups

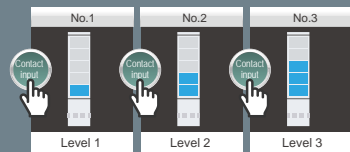
You can specify the timing for pattern transitions with "Editing Software".



2. Pulse Trigger Type

Maximum Display Patterns	63 Patterns
Maximum Number of Groups	15 Groups

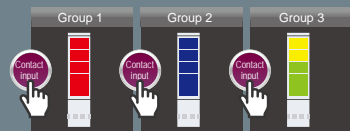
Use input (one shot pulse) to set up pattern transition timing.



3. Single Display Type

Maximum Display Patterns	—
Maximum Number of Groups	31 Groups

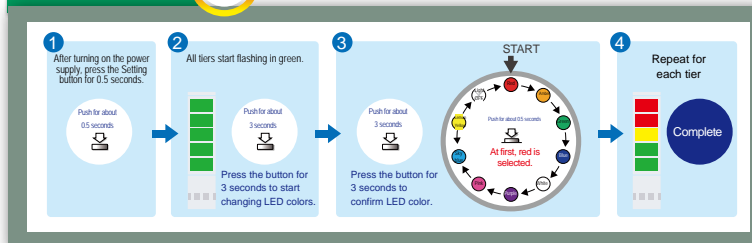
Call and trigger by combining the ON/OFF value of inputs 1 to 5.



Signal Tower Mode



No editing software required. Set up colors using the Setting button.







**Signal Tower**  
**LR Series**  
Modular LED Signal Tower

- φ40mm **LR4**
- φ50mm **LR5**
- φ60mm **LR6**
- φ70mm **LR7**

- Colors** Red, Amber, Green, Blue, White
- Globe** Polycarbonate resin, high shock resistance and heat resistance

- Standard Colors:  
1-Tier model / Red (-R), Amber (-Y), Green (-G)  
2-Tier model / Red-Amber (-RY), Red-Green (-RG), 3-Tier model / Red-Amber-Green (-RYG)  
4-Tier model / Red-Amber-Green-Blue (-RYGB), 5-Tier model / Red-Amber-Green-Blue-White (-RYGBC)

Next generation signal tower series featuring ultra-bright LEDs, a modular design, and a wide-selection of options to take on the most challenging applications.

Re-designed lens and improved module construction delivering bright, even light for visibility from further distances. (2000mcd output)

Re-engineered, completely enclosed sound module, maintains substantial water and dust protection while producing loud, omni-directional sound. (LR5 DC12V: 80dB LR4 & LR5: 85dB, LR6: 88dB, LR7: 90dB at 1m)

A modular, "Twist and Lock", design to easily customize and field configure LED units and sound modules.

A sleek, smooth form factor and a rugged body construction for performance in harsh environments, carrying an IP65 protection rating.

Four mounting options: Direct, pole with L-bracket, pole with circular bracket, and pole with folding bracket (Off-white only).

Available in DC24V and AC100-240V (Off-white only).

Available in Off-white and Silver bodies.

Available with Clear lens (special order).

## Specifications

### LR Series Assembled Products / Common Specifications

Ambient Operating Temperature	-20°C - +50°C *
Ambient Operating Humidity	90% RH or less, no condensation
Storage Ambient Temperature	-30°C - +60°C
Storage Ambient Humidity	90% RH or less, no condensation
Mounting location	Indoors
Mounting direction	Upright
Protection Rating	IP65 (IEC 60529) / NEMA TYPE 4X, 13 * for LJ type only, IP54
Environmental Conditions	Upright
Insulation Resistance	1 MΩ or more at 500V DC between the live part and non-current carrying metallic part
Withstand Voltage	500V AC* for 1 minute, between the live part and non-current carrying metallic part. * 1500V AC for M2 type
Flashing Rate	60±2 /minute
Sound pressure	LR4 Typ.85dB LR5 Typ.85dB LR6 Typ.88dB LR7 p.90dB LR5 12V DC Typ.80dB With Sound Reduction: Approximately -10dB (can be switched using DIP switch)
Environmental Conditions	With buzzer sound "No.4 Sweep sound", at a distance of 1 m from the surface in all directions
Buzzer Sound	4 patterns *Switch using DIP switch No.1 Fast Intermitten No.2 Continuous No.3 Fast Alternating No.4 Sweep sound * By short-circuiting the buzzer line and flashing common line, you can emit a buzzer tone that turns on and off every 0.5 seconds.
Transistor	NPN/PNP (*NPN only for 100 - 240V AC type)
Conformity standards	<ul style="list-style-type: none"> <li>• UL 508, CSA-C22.2 No.14</li> <li>• RoHS Directive EN 50581</li> <li>• KC (KN 61000-6-4, KN 61000-6-2) *Except ABS and AS models</li> <li>• EMC directives EN61000-6-4, EN61000-6-2</li> <li>• FCC Part 15 Subpart B Class A</li> <li>• Low Voltage Directives IEC/EN60947-5-1, EN62471 *M2 type only (excluding LJ type)</li> </ul>

### External Contact Capacity

Is: Current Capacity, Vs: Withstand Voltage, IL: Leakage Current

Rated Load Voltage	[01] 12V DC		[02] 24V DC		[M2] 100 - 240V AC	
	LED Unit (per tier)	Signal Wire Current (Maximum) / Voltage	100mA / Power supply voltage	45mA / Power supply voltage	45mA / 24V DC	45mA / 24V DC
Buzzer	Recommended Contact Capacity	Is ≥ 100mA Vs ≥ DC20V (*1)	Is ≥ 100mA Vs ≥ DC35V	Is ≥ 100mA Vs ≥ DC35V	Is ≥ 100mA Vs ≥ DC35V	Is ≥ 100mA Vs ≥ DC35V
	Signal Wire Current (Maximum) / Voltage	250mA / Power supply voltage	250mA / Power supply voltage	250mA / 24V DC	250mA / 24V DC	250mA / 24V DC
Power supply	Recommended Contact Capacity	Is ≥ 300mA Vs ≥ DC20V (*1)	Is ≥ 300mA Vs ≥ DC35V	Is ≥ 300mA Vs ≥ DC35V	Is ≥ 300mA Vs ≥ DC35V	Is ≥ 300mA Vs ≥ DC35V
	Current Consumption (Maximum)	500mA (*2)	250mA (*2)	250mA (*2)	150mA (*2)	150mA (*2)
Inrush Current	Recommended Contact Capacity	Is ≥ 700mA Vs ≥ DC20V	Is ≥ 500mA Vs ≥ DC35V	Is ≥ 500mA Vs ≥ DC35V	Inrush Current Value or more	Inrush Current Value or more
	Signal Wire	No LED (*1) No Buzzer (*1)	No LED No Buzzer (*3)	No LED No Buzzer (*3)	None	None
Inrush Current	Power Supply Wire	0.7A, 15ms or less	None (*4)	None (*4)	None	With Ambient Operating Temperature 25°C: 25A, 2.0ms or less (with cold start) With Ambient Operating Temperature 50°C/45°C: 50A, 2.0ms or less (with cold start) (*5)
	Transistor Contact Leakage Current	IL ≤ 0.1 mA				

\*1 When the power supply wire ( Gray / WT: 9 Black) is not connected, inrush current of 0.7 amps flow through the signal line. Recommended Contact Capacity is: Is ≥ 700mA and Vs ≥ DC20V \* 2... 5 LED tiers and buzzer operating \*3... Signal Wire Current (maximum) or less \*4... Sum Total of Signal Wire Current (maximum) or less \*5... [W] Off-white (PC) model: When ambient operating temperature is 50°C

### LED Units / Common Specifications

Luminous Color	Red	Amber	Green	Blue	White	Multi color
Rated Voltage	24V DC					
Rated Current	Typ. 0.04A/1W					
Consumption / Rated Power Consumption	Maximum 0.045A/1.3W					

### Audible Units / Common Specifications

Rated Voltage	24V DC	
Rated Current	Typ.	0.04A/1W
Consumption / Rated Power Consumption	Maximum	0.25A/1.3W





# New Lineup

## Clear-globe LED Unit

### LR4-E-RZ

- 4 (φ 40) R (Red)
- 5 (φ 50) Y (Amber)
- 6 (φ 60) G (Green)
- B (Blue)



- Individual Unit
- Pre-assembled\*
- \* LR4, LR6 Only

LR4 LR5 LR6

Clear globes for R,Y,G,B

## Multi-color LED Unit

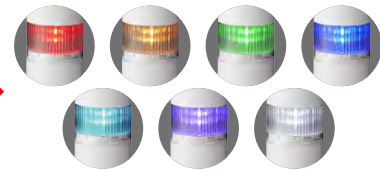
### LR6-E-MZ

7 colors

LR6

Individual Unit

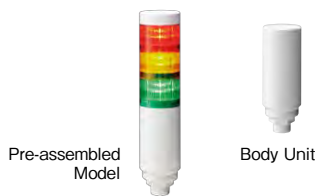
It displays 7 colors in one unit.  
(Red/Green/Blue/Amber/  
Cyan/Purple/White)



By connecting (red, green, blue) wires, the colors light up.

Wire Color	Red	Red/ Green	Blue	Green	Blue/ Green	Red/ Blue	Red/ Green/ Blue
LED Color	Red	Amber	Blue	Green	Cyan	Purple	White

## Direct Mount with M12 Connector



	Model	Tiers	Rated Voltage	Mounting/ Wiring	Buzzer	Body Color	LED Unit Color
Assembly Model	LR 6 - - 3	02	WC	N	W	-	RYG
Unit Model (Body Unit)	LR 6 - -	02	WC	N	W		

6	φ60	1	5	Tiers	02	24V DC	B	Buzzer	N	No Buzzer	W	Off-white
WC Direct Mount / M12 Connector												
LED Color: R (Red)/Y (Amber)/ G (Green)/B (Blue) /C (White) (From top to bottom)												

### Direct Mount Installation

#### Direct Mount

#### Easy Wiring

The M12 connection type provides a convenient, single cable mating point.



#### Easy direct-mount installation

If one hole is placed in the mounting position, it can easily be attached. It can easily be secured with an M30 nut.

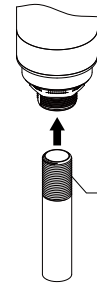
\* The M12 Connector & Cable (SZ-120) is sold separately.



### Installation Method 2

#### Pole Mount

1/2" NPT Support Bracket is designed to fit a 1/2 inch NPT threaded pipe.



## LR5/LR7 Screwless Terminal Knock-out Mount

### Dual mount base unit allows for direct or pole mounting



φ50 Body Unit



φ70 Body Unit

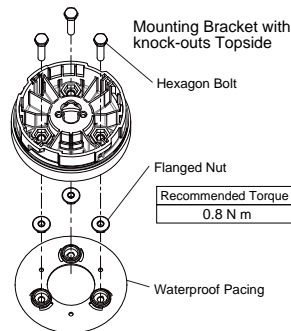
#### Screw and nut accessories included.

Accessory			
LR5 - KT	Hexagon Bolt (M3 x 20)	Hexagon Nut with Flange (M3)	3 pcs.
LR7 - KT	Hexagon Bolt (M4 x 20)	Hexagon Nut with Flange (M4)	3 pcs.
			6 pcs.

### Installation Method 1

#### Direct Mount (Using accessories)

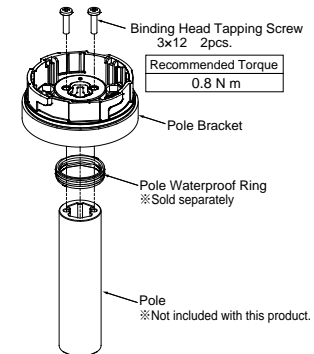
Mount on pole bracket by knocking out holes with the tapping screws included with the bracket.



### Installation Method 2

#### Pole Mount (Not Using accessories)

Mount directly by knocking out holes in the bracket and securing with nuts and bolts.



\*Please refer to the Complete Operation Manual for details of installation.

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# Signal Tower

## LR Series Pre-assembled Models

### φ40mm Model Code

(Ex.) **LR4-502WJBW-RYGBCZ**

Model      ①      ②      ③      ④      ⑤      ⑥      ⑦

- ① Tiers  
1 = 1 Tier  
2 = 2 Tiers  
3 = 3 Tiers  
4 = 4 Tiers  
5 = 5 Tiers
- ② Rated Voltage  
02 = 24V DC  
M2 = 100 - 240V AC \*1
- ③ Mounting/Wiring  
WJ = Direct Mount/Cable  
LJ = Pole Mount with L-bracket/Cable  
PJ = Pole Mount with Circular Bracket/Cable  
QJ = Pole Mount with Folding Bracket/Cable \*2
- ④ Flashing/Buzzer  
B = With Flashing/Buzzer  
N = No Flashing/Buzzer
- ⑤ Body Color  
W = Off-white  
U = Silver \*3
- ⑥ LED Module Color  
R = Red  
Y = Amber  
G = Green  
B = Blue  
C = White
- ⑦ Globe Type  
Blank = Color Globe  
Z = Clear Globe

\*1 For WJ, LJ and PJ type only    \*2 For 24V DC and Off-white type only    \*3 For 24V DC type WJ, LJ and PJ type only

### φ50mm Model Code

(Ex.) **LR5-502WJBW-RYGBCZ**

Model      ①      ②      ③      ④      ⑤      ⑥      ⑦

- ① Tiers  
1 = 1 Tier  
2 = 2 Tiers  
3 = 3 Tiers  
4 = 4 Tiers  
5 = 5 Tiers
- ② Rated Voltage  
01 = 12V DC  
02 = 24V DC
- ③ Mounting/Wiring  
WJ = Direct Mount/Cable  
LJ = Pole Mount with L-bracket/Cable  
PJ = Pole Mount with Circular Bracket/Cable
- ④ Flashing/Buzzer  
B = With Flashing/Buzzer  
N = No Flashing/Buzzer
- ⑤ Body Color  
W = Off-white
- ⑥ LED Module Color  
R = Red  
Y = Amber  
G = Green  
B = Blue  
C = White
- ⑦ Globe Type  
Blank = Color Globe  
Z = Clear Globe

### φ60mm Model Code

(Ex.) **LR6-502WJBW-RYGBCZ**

Model      ①      ②      ③      ④      ⑤      ⑥      ⑦

- ① Tiers  
1 = 1 Tier  
2 = 2 Tiers  
3 = 3 Tiers  
4 = 4 Tiers  
5 = 5 Tiers
- ② Rated Voltage  
02 = 24V DC  
M2 = 100 - 240V AC \*1
- ③ Mounting/Wiring  
WJ = Direct Mount/Cable  
LJ = Pole Mount with L-bracket/Cable  
PJ = Pole Mount with Circular Bracket/Cable  
QJ = Pole Mount with Folding Bracket/Cable \*2  
WC = Direct Mount/M12 Connector \*2
- ④ Flashing/Buzzer  
B = With Flashing/Buzzer  
N = No Flashing/Buzzer
- ⑤ Body Color  
W = Off-white  
U = Silver \*3
- ⑥ LED Module Color  
R = Red  
Y = Amber  
G = Green  
B = Blue  
C = White  
M = Multi Color
- ⑦ Globe Type  
Blank = Color Globe  
Z = Clear Globe




\*1 For WJ, LJ and PJ type only    \*2 For 24V DC and Off-white type only    \*3 For 24V DC type WJ, LJ and PJ type only

### φ70mm Model Code



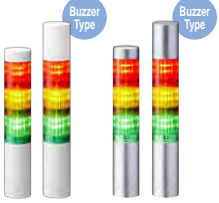

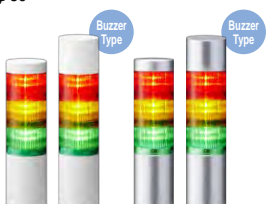



(Ex.) **LR7-502WJBW-RYGBC**

Model      ①      ②      ③      ④      ⑤      ⑥

- ① Tiers  
1 = 1 Tier  
2 = 2 Tiers  
3 = 3 Tiers  
4 = 4 Tiers  
5 = 5 Tiers
- ② Rated Voltage  
02 = 24V DC
- ③ Mounting/Wiring  
WJ = Direct Mount/Cable
- ④ Flashing/Buzzer  
B = With Flashing/Buzzer  
N = No Flashing/Buzzer
- ⑤ Body Color  
W = Off-white
- ⑥ LED Module Color  
R = Red  
Y = Amber  
G = Green  
B = Blue  
C = White

Mounting Type	Rated Voltage	Size	Flash/Buzzer	Tiers	Model	Power Consumption	Mass
 <p>Pole Mount with Folding Bracket</p>	24V DC	φ 40 	—	1	LR4-102QJNW	1.0W	0.455kg
				2	LR4-202QJNW	2.0W	0.490kg
				3	LR4-302QJNW	3.0W	0.525kg
				4	LR4-402QJNW	4.0W	0.560kg
				5	LR4-502QJNW	5.0W	0.595kg
			O	1	LR4-102QJBW	2.0W	0.490kg
				2	LR4-202QJBW	3.0W	0.525kg
				3	LR4-302QJBW	4.0W	0.560kg
				4	LR4-402QJBW	5.0W	0.595kg
				5	LR4-502QJBW	6.0W	0.630kg
		φ 60 	—	1	LR6-102QJNW	1.0W	0.520kg
				2	LR6-202QJNW	2.0W	0.580kg
				3	LR6-302QJNW	3.0W	0.640kg
				4	LR6-402QJNW	4.0W	0.700kg
				5	LR6-502QJNW	5.0W	0.760kg
			O	1	LR6-102QJBW	2.0W	0.580kg
				2	LR6-202QJBW	3.0W	0.640kg
				3	LR6-302QJBW	4.0W	0.700kg
				4	LR6-402QJBW	5.0W	0.760kg
				5	LR6-502QJBW	6.0W	0.820kg

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Mounting Type	Rated Voltage	Size	Flash/Buzzer	Tiers	Model	Power Consumption	Mass
 <p>Direct Mount</p>	12V DC	$\phi$ 50 	—	1	LR5-101WJNW	1.0W	0.240kg
				2	LR5-201WJNW	2.0W	0.280kg
				3	LR5-301WJNW	3.0W	0.320kg
				4	LR5-401WJNW	4.0W	0.360kg
				5	LR5-501WJNW	5.0W	0.400kg
			O	1	LR5-101WJBW	2.1W	0.290kg
				2	LR5-201WJBW	3.1W	0.330kg
				3	LR5-301WJBW	4.1W	0.370kg
				4	LR5-401WJBW	5.1W	0.410kg
				5	LR5-501WJBW	6.1W	0.450kg
	24V DC	$\phi$ 40 	—	1	LR4-102WJNW[U]	1.0W	0.205kg/0.355kg
				2	LR4-202WJNW[U]	2.0W	0.240kg/0.390kg
				3	LR4-402WJNW[U]	4.0W	0.310kg/0.460kg
				4	LR4-502WJNW[U]	5.0W	0.345kg/0.495kg
				5	LR4-502WJNBW[U]	6.0W	0.380kg/0.530kg
		O	1	LR4-102WJBW[U]	2.0W	0.240kg/0.390kg	
			2	LR4-202WJBW[U]	3.0W	0.275kg/0.425kg	
			3	LR4-302WJBW[U]	4.0W	0.310kg/0.460kg	
			4	LR4-402WJBW[U]	5.0W	0.345kg/0.495kg	
			5	LR4-502WJBW[U]	6.0W	0.380kg/0.530kg	
	$\phi$ 50 	—	1	LR5-102WJNW	1.0W	0.240kg	
			2	LR5-202WJNW	2.0W	0.280kg	
			3	LR5-302WJNW	3.0W	0.360kg	
			4	LR5-402WJNW	4.0W	0.360kg	
5			LR5-502WJNW	5.0W	0.400kg		
O	1	LR5-102WJBW	2.0W	0.290kg			
	2	LR5-202WJBW	3.0W	0.330kg			
	3	LR5-302WJBW	4.0W	0.370kg			
	4	LR5-402WJBW	5.0W	0.410kg			
	5	LR5-502WJBW	6.0W	0.450kg			
$\phi$ 60 	—	1	LR6-102WJNW[U]	1.0W	0.280kg/0.410kg		
		2	LR6-202WJNW[U]	2.0W	0.340kg/0.470kg		
		3	LR6-302WJNW[U]	3.0W	0.400kg/0.530kg		
		4	LR6-402WJNW[U]	4.0W	0.460kg/0.590kg		
		5	LR6-502WJNW[U]	5.0W	0.520kg/0.650kg		
	O	1	LR6-102WJBW[U]	2.0W	0.340kg/0.470kg		
		2	LR6-202WJBW[U]	3.0W	0.400kg/0.530kg		
		3	LR6-302WJBW[U]	4.0W	0.460kg/0.590kg		
		4	LR6-402WJBW[U]	5.0W	0.520kg/0.650kg		
		5	LR6-502WJBW[U]	6.0W	0.580kg/0.710kg		
$\phi$ 70 	—	1	LR7-102WJNW	1.0W	0.305kg		
		2	LR7-202WJNW	2.0W	0.370kg		
		3	LR7-302WJNW	3.0W	0.435kg		
		4	LR7-402WJNW	4.0W	0.500kg		
		5	LR7-502WJNW	5.0W	0.565kg		
	O	1	LR7-102WJBW	2.0W	0.375kg		
		2	LR7-202WJBW	3.0W	0.440kg		
		3	LR7-302WJBW	4.0W	0.505kg		
		4	LR7-402WJBW	5.0W	0.570kg		
		5	LR7-502WJBW	6.0W	0.635kg		
100 - 240V AC	$\phi$ 40 	—	1	LR4-1M2WJNW	1.5W	0.285kg	
			2	LR4-2M2WJNW	3.0W	0.320kg	
			3	LR4-3M2WJNW	4.5W	0.355kg	
			4	LR4-4M2WJNW	6.0W	0.390kg	
			5	LR4-5M2WJNW	7.5W	0.425kg	
			O	1	LR4-1M2WJBW	3.0W	0.320kg
				2	LR4-2M2WJBW	4.5W	0.355kg
	3	LR4-3M2WJBW		6.0W	0.390kg		
	4	LR4-4M2WJBW		7.5W	0.425kg		
	5	LR4-5M2WJBW		9.0W	0.460kg		
	$\phi$ 60 	—	1	LR6-1M2WJNW	1.5W	0.380kg	
			2	LR6-2M2WJNW	3.0W	0.440kg	
			3	LR6-3M2WJNW	4.5W	0.500kg	
			4	LR6-4M2WJNW	6.0W	0.560kg	
5			LR6-5M2WJNW	7.5W	0.620kg		
O			1	LR6-1M2WJBW	3.0W	0.440kg	
			2	LR6-2M2WJBW	4.5W	0.500kg	
	3	LR6-3M2WJBW	6.0W	0.560kg			
	4	LR6-4M2WJBW	7.5W	0.620kg			
	5	LR6-5M2WJBW	9.0W	0.680kg			

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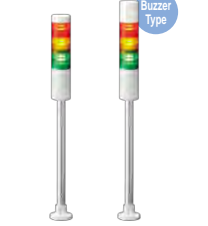
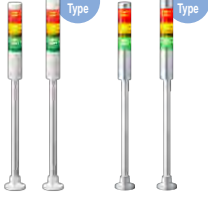
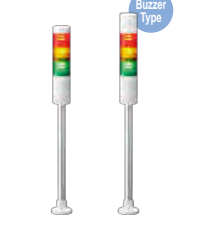







Audibles















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# LR Series Pre-assembled Models

Mounting Type	Rated Voltage	Size	Flash/Buzzer	Tiers	Model	Power Consumption	Mass	
 Pole Mount with Circular Bracket	12V DC	φ 50 	—	1	LR5-101PJNW	1.0W	0.420kg	
				2	LR5-201PJNW	2.0W	0.460kg	
				3	LR5-301PJNW	3.0W	0.500kg	
				4	LR5-401PJNW	4.0W	0.540kg	
				5	LR5-501PJNW	5.0W	0.580kg	
			O	1	LR5-101PJBW	2.1W	0.470kg	
				2	LR5-201PJBW	3.1W	0.510kg	
				3	LR5-301PJBW	4.4W	0.550kg	
				4	LR5-401PJBW	5.1W	0.590kg	
				5	LR5-501PJBW	6.1W	0.630kg	
	24V DC	φ 40		—	1	LR4-102PJNW[U]	1.0W	0.395kg/0.545kg
					2	LR4-202PJNW[U]	2.0W	0.430kg/0.580kg
					3	LR4-302PJNW[U]	3.0W	0.465kg/0.615kg
					4	LR4-402PJNW[U]	4.0W	0.500kg/0.650kg
					5	LR4-502PJNW[U]	5.0W	0.535kg/0.685kg
				O	1	LR4-102PJBW[U]	2.0W	0.430kg/0.580kg
					2	LR4-202PJBW[U]	3.0W	0.465kg/0.615kg
					3	LR4-302PJBW[U]	4.0W	0.500kg/0.650kg
					4	LR4-402PJBW[U]	5.0W	0.535kg/0.685kg
					5	LR4-502PJBW[U]	6.0W	0.570kg/0.720kg
φ 50			—	1	LR5-102PJNW	1.0W	0.420kg	
				2	LR5-202PJNW	2.0W	0.460kg	
				3	LR5-302PJNW	3.0W	0.500kg	
				4	LR5-402PJNW	4.0W	0.540kg	
				5	LR5-502PJNW	5.0W	0.580kg	
			O	1	LR5-102PJBW	2.0W	0.470kg	
				2	LR5-202PJBW	3.0W	0.510kg	
				3	LR5-302PJBW	4.0W	0.550kg	
				4	LR5-402PJBW	5.0W	0.590kg	
				5	LR5-502PJBW	6.0W	0.630kg	
φ 60		—	1	LR6-102PJNW[U]	1.0W	0.460kg/0.590kg		
			2	LR6-202PJNW[U]	2.0W	0.520kg/0.650kg		
			3	LR6-302PJNW[U]	3.0W	0.580kg/0.710kg		
			4	LR6-402PJNW[U]	4.0W	0.640kg/0.770kg		
			5	LR6-502PJNW[U]	5.0W	0.700kg/0.830kg		
		O	1	LR6-102PJBW[U]	2.0W	0.520kg/0.650kg		
			2	LR6-202PJBW[U]	3.0W	0.580kg/0.710kg		
			3	LR6-302PJBW[U]	4.0W	0.640kg/0.770kg		
			4	LR6-402PJBW[U]	5.0W	0.700kg/0.830kg		
			5	LR6-502PJBW[U]	6.0W	0.760kg/0.890kg		
100 - 240V AC	φ 40		—	1	LR4-1M2PJNW	1.5W	0.475kg	
				2	LR4-2M2PJNW	3.0W	0.510kg	
				3	LR4-3M2PJNW	4.5W	0.545kg	
				4	LR4-4M2PJNW	6.0W	0.580kg	
				5	LR4-5M2PJNW	7.5W	0.615kg	
			O	1	LR4-1M2PJBW	3.0W	0.510kg	
				2	LR4-2M2PJBW	4.5W	0.545kg	
	φ 60		—	1	LR6-1M2PJNW	1.5W	0.560kg	
				2	LR6-2M2PJNW	3.0W	0.620kg	
				3	LR6-3M2PJNW	4.5W	0.680kg	
				4	LR6-4M2PJNW	6.0W	0.740kg	
				5	LR6-5M2PJNW	7.5W	0.800kg	
			O	1	LR6-1M2PJBW	3.0W	0.620kg	
				2	LR6-2M2PJBW	4.5W	0.680kg	
100 - 240V AC	φ 40		—	1	LR4-1M2PJNW	1.5W	0.475kg	
				2	LR4-2M2PJNW	3.0W	0.510kg	
				3	LR4-3M2PJNW	4.5W	0.545kg	
				4	LR4-4M2PJNW	6.0W	0.580kg	
				5	LR4-5M2PJNW	7.5W	0.615kg	
			O	1	LR4-1M2PJBW	3.0W	0.510kg	
				2	LR4-2M2PJBW	4.5W	0.545kg	
	φ 60		—	1	LR6-1M2PJNW	1.5W	0.560kg	
				2	LR6-2M2PJNW	3.0W	0.620kg	
				3	LR6-3M2PJNW	4.5W	0.680kg	
				4	LR6-4M2PJNW	6.0W	0.740kg	
				5	LR6-5M2PJNW	7.5W	0.800kg	
			O	1	LR6-1M2PJBW	3.0W	0.620kg	
				2	LR6-2M2PJBW	4.5W	0.680kg	
100 - 240V AC	φ 40		—	1	LR4-1M2PJNW	1.5W	0.475kg	
				2	LR4-2M2PJNW	3.0W	0.510kg	
				3	LR4-3M2PJNW	4.5W	0.545kg	
				4	LR4-4M2PJNW	6.0W	0.580kg	
				5	LR4-5M2PJNW	7.5W	0.615kg	
			O	1	LR4-1M2PJBW	3.0W	0.510kg	
				2	LR4-2M2PJBW	4.5W	0.545kg	
	φ 60		—	1	LR6-1M2PJNW	1.5W	0.560kg	
				2	LR6-2M2PJNW	3.0W	0.620kg	
				3	LR6-3M2PJNW	4.5W	0.680kg	
				4	LR6-4M2PJNW	6.0W	0.740kg	
				5	LR6-5M2PJNW	7.5W	0.800kg	
			O	1	LR6-1M2PJBW	3.0W	0.620kg	
				2	LR6-2M2PJBW	4.5W	0.680kg	

Mounting Type	Rated Voltage	Size	Flash/Buzzer	Tiers	Model	Power Consumption	Mass	
 <p>Pole Mount with L-bracket</p>	12V DC	$\phi 50$ 	—	1	LR5-101LJNW	1.0W	0.530kg	
				2	LR5-201LJNW	2.0W	0.570kg	
				3	LR5-301LJNW	3.0W	0.610kg	
				4	LR5-401LJNW	4.0W	0.650kg	
				5	LR5-501LJNW	5.0W	0.690kg	
			O	1	LR5-101LJBW	2.1W	0.580kg	
				2	LR5-201LJBW	3.1W	0.620kg	
				3	LR5-301LJBW	4.1W	0.660kg	
				4	LR5-401LJBW	5.1W	0.700kg	
				5	LR5-501LJBW	6.1W	0.740kg	
	 <p>Pole Mount with L-bracket</p>	24V DC	$\phi 40$ 	—	1	LR4-102LJNW[U]	1.0W	0.495kg/0.645kg
					2	LR4-202LJNW[U]	2.0W	0.530kg/0.680kg
					3	LR4-302LJNW[U]	3.0W	0.565kg/0.715kg
					4	LR4-402LJNW[U]	4.0W	0.600kg/0.750kg
					5	LR4-502LJNW[U]	5.0W	0.635kg/0.785kg
				O	1	LR4-102LJBW[U]	2.0W	0.530kg/0.680kg
					2	LR4-202LJBW[U]	3.0W	0.565kg/0.715kg
					3	LR4-302LJBW[U]	4.0W	0.600kg/0.750kg
					4	LR4-402LJBW[U]	5.0W	0.635kg/0.785kg
					5	LR4-502LJBW[U]	6.0W	0.670kg/0.820kg
 <p>Pole Mount with L-bracket</p>		24V DC	$\phi 50$ 	—	1	LR5-102LJNW	1.0W	0.530kg
					2	LR5-202LJNW	2.0W	0.570kg
					3	LR5-302LJNW	3.0W	0.610kg
					4	LR5-402LJNW	4.0W	0.650kg
					5	LR5-502LJNW	5.0W	0.690kg
				O	1	LR5-102LJBW	2.0W	0.580kg
					2	LR5-202LJBW	3.0W	0.620kg
					3	LR5-302LJBW	4.0W	0.660kg
					4	LR5-402LJBW	5.0W	0.700kg
					5	LR5-502LJBW	6.0W	0.740kg
 <p>Pole Mount with L-bracket</p>	24V DC	$\phi 60$ 	—	1	LR6-102LJNW[U]	1.0W	0.560kg/0.700kg	
				2	LR6-202LJNW[U]	2.0W	0.620kg/0.760kg	
				3	LR6-302LJNW[U]	3.0W	0.680kg/0.820kg	
				4	LR6-402LJNW[U]	4.0W	0.740kg/0.880kg	
				5	LR6-502LJNW[U]	5.0W	0.800kg/0.940kg	
			O	1	LR6-102LJBW[U]	2.0W	0.620kg/0.760kg	
				2	LR6-202LJBW[U]	3.0W	0.680kg/0.820kg	
				3	LR6-302LJBW[U]	4.0W	0.740kg/0.880kg	
				4	LR6-402LJBW[U]	5.0W	0.800kg/0.940kg	
				5	LR6-502LJBW[U]	6.0W	0.860kg/1.000kg	
 <p>Pole Mount with L-bracket</p>	100-240V AC <sup>※</sup>	$\phi 40$ 	—	1	LR4-1M2LJNW	1.5W	0.575kg	
				2	LR4-2M2LJNW	3.0W	0.610kg	
				3	LR4-3M2LJNW	4.5W	0.645kg	
				4	LR4-4M2LJNW	6.0W	0.680kg	
				5	LR4-5M2LJNW	7.5W	0.715kg	
			O	1	LR4-1M2LJBW	3.0W	0.610kg	
				2	LR4-2M2LJBW	4.5W	0.645kg	
				3	LR4-3M2LJBW	6.0W	0.680kg	
				4	LR4-4M2LJBW	7.5W	0.715kg	
				5	LR4-5M2LJBW	9.0W	0.750kg	
 <p>Pole Mount with L-bracket</p>	100-240V AC <sup>※</sup>	$\phi 60$ 	—	1	LR6-1M2LJNW	1.5W	0.660kg	
				2	LR6-2M2LJNW	3.0W	0.720kg	
				3	LR6-3M2LJNW	4.5W	0.780kg	
				4	LR6-4M2LJNW	6.0W	0.840kg	
				5	LR6-5M2LJNW	7.5W	0.900kg	
			O	1	LR6-1M2LJBW	3.0W	0.720kg	
				2	LR6-2M2LJBW	4.5W	0.780kg	
				3	LR6-3M2LJBW	6.0W	0.840kg	
				4	LR6-4M2LJBW	7.5W	0.900kg	
				5	LR6-5M2LJBW	9.0W	0.960kg	
 <p>Direct Mount With M12 Connector</p>	24V DC	$\phi 60$ 	—	3	LR6-302WCNW	3.0W	0.350kg	

※ Not suitable for KC (KN 61000-6-4, KN 61000-6-2) and Low Voltage Directive (TEC / EN 60947-5-1, EN 62471).

Network  
Signal Tower  
Signal Light  
Revolving Warning Light  
Cube Tower  
Audibles  
Hybrid Signaling Devices  
LED Illumination  
Options



# LR Series Modular Models

## Select a Audible Alarm Unit (for Flashing / Audible Alarm function)



Size	Color	Model
φ 40		LR4-B□
φ 50		LR5-B□
φ 60		LR6-B□
φ 70		LR7-B□

□•••W: Off-white U: Silver K: Black

## Select an LED Unit



Size	Color	Model
φ 40		LR4-E-R/Y/G/B/C
		LR4-E-RZ/YZ/GZ/BZ <span>CLEAR</span>
φ 50		LR5-E-R/Y/G/B/C
		LR4-E-RZ/YZ/GZ/BZ <span>CLEAR</span>
φ 60		LR6-E-R/Y/G/B/C
		LR6-E-RZ/YZ/GZ/BZ <span>CLEAR</span>
φ 70		LR7-E-R/Y/G/B/C
φ 60		LR6-E-MZ <span>Multi-color</span>

## Select a Body Unit

Mounting Type	Rated Voltage	Size	Model
 Direct Mount/Cable	12V DC	φ 50	LR5-01WJNW
	24V DC	φ 40	LR4-02WJNW[U]
		φ 50	LR5-02WJNW
		φ 60	LR6-02WJNW[U]
		φ 70	LR7-02WJNW
100 - 240V AC	φ 40	LR4-M2WJNW	
	φ 60	LR6-M2WJNW	
 Direct Mount/Screwless Terminal	24V DC	φ 50	LR5-02WTNW[U][K]
		φ 70	LR7-02WTNW[U][K]
 Knock-out Mount/Screwless Terminal	24V DC	φ 50	LR5-02KTNW[U][K]
		φ 70	LR7-02KTNW[U][K]
 Direct Mount/M12 Connector	24V DC	φ 60	LR6-02WCNW

Body Unit Model Code

(Ex.) **LR6-02WJNW**

Model ① ② ③ ④ ⑤

- ① Size  
4 =  $\phi$  40  
5 =  $\phi$  50  
6 =  $\phi$  60  
7 =  $\phi$  70
  - ② Rated Voltage  
01 = 12V DC\*<sup>1</sup>  
02 = 24V DC  
M2 = 100 - 240V AC \*<sup>2</sup>
  - ③ Mounting/Wiring  
WJ = Direct Mount/Cable  
WT = Direct Mount/Terminal \*<sup>3</sup>  
KT = Knock-outs Mount/Terminal \*<sup>3</sup>  
WC = Direct Mount/M12 Connector \*<sup>4</sup>  
LJ = Pole Mount with L-bracket/Cable \*<sup>5</sup>  
PJ = Pole Mount with Circular Bracket/Cable \*<sup>5</sup>  
QJ = Pole Mount with Folding Bracket/Cable \*<sup>6</sup>
  - ④ Flashing/Buzzer  
N = No Flashing/Buzzer
  - ⑤ Body Color  
W = Off-white  
U = Silver  
K = Black\*<sup>7</sup>
- \*1 For LR5 models only  
\*2 For WJ, LJ and PJ mounting with LR4 and LR6 models  
\*3 For LR5, LR7 DC24V models only  
\*4 For LR6 DC24V models only  
\*5 For LR4, LR5 and LR6 models  
\*6 With LR4 and LR6 DC24V Off-white models only  
\*7 For LR5, LR7 models only

3 Easy Steps

**1** Remove the headcover to setup the body unit



**2** Attach from bottom to top, one LED unit at a time to the body unit






**3** Replace the headcover, or attach the audible unit



See the Movie!!  
Scan the QR code to see how easy the LR is to configure.



Mounting Type	Rated Voltage	Size	Model
 Pole Mount with Circular Bracket/Cable	12V DC	$\phi$ 50	<b>LR5-01PJNW</b>
	24V DC	$\phi$ 40	<b>LR4-02PJNW[U]</b>
		$\phi$ 50	<b>LR5-02PJNW</b>
	$\phi$ 60	<b>LR6-02PJNW[U]</b>	
 Pole Mount with L-bracket/Cable	12V DC	$\phi$ 50	<b>LR5-01LJNW</b>
	24V DC	$\phi$ 40	<b>LR4-02LJNW[U]</b>
		$\phi$ 50	<b>LR5-02LJNW</b>
		$\phi$ 60	<b>LR6-02LJNW[U]</b>
	100 - 240V AC	$\phi$ 40	<b>LR4-M2LJNW</b>
		$\phi$ 60	<b>LR6-M2LJNW</b>
 Pole Mount with Folding Bracket/Cable	24V DC	$\phi$ 40	<b>LR4-02QJNW</b>
		$\phi$ 60	<b>LR6-02QJNW</b>

**Removable Screwless Terminal**



A new removable terminal for easier wiring.



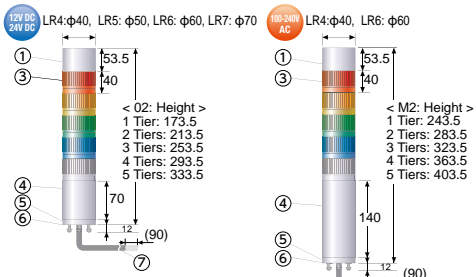
The terminal can be pulled out



- Network
- Signal Tower
- Signal Light
- Revolving Warning Light
- Cube Tower
- Audibles
- Hybrid Signaling Devices
- LED Illumination
- Options

# Outer Dimensional Drawing (Unit: mm)

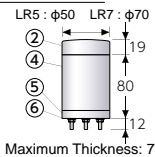
**Mount A** [WJ] Direct Mount/Cable (01: 12V DC / 02: 24V DC) (M2: 100-240V AC)



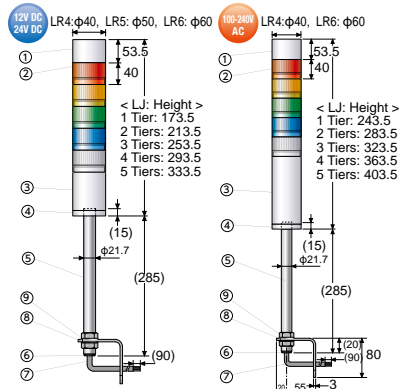
Maximum Thickness: 7  
Cable Length: (1300)  
U type: (3300)  
Cable Diameter: φ7.5

No.	Description	Material
①	Buzzer Unit	PC
②	Head Cover	PC
③	LED Unit	Globe: PC
④	Body	PC
⑤	Direct Mount Bracket	PC
⑥	Waterproof Packing	Silicon Rubber
⑦	Cable	PVC

**Mount A** [WT] Direct Mount/Screwless Terminal (Body Unit)



**Mount B** [LJ] Pole Mount with L-bracket & Cable (01: 12V DC / 02: 24V DC) (M2: 100-240V AC)

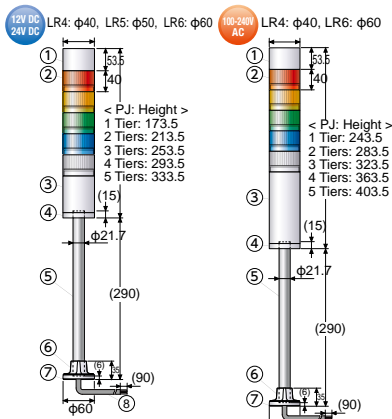


Cable Length: (1000)  
U type: (3000)  
Cable Diameter: φ7.5

Cable Length: (1000)  
U type: (3000)  
Cable Diameter: φ7.5

No.	Description	Material
①	Buzzer Unit	PC
②	LED Unit	Globe: PC
③	Body	PC
④	Pole Bracket	PC
⑤	Pole	AL
⑥	Rubber Bushing	EPR Rubber
⑦	Cable	PVC
⑧	L-bracket	Steel
⑨	Hexagon Nut M22	SUM

**Mount A** [PJ] Pole Mount with/Circular Bracket & Cable (01: 12V DC / 02: 24V DC) (M2: 100-240V AC)

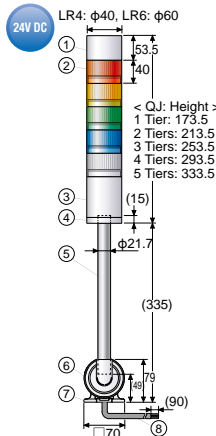


Cable Length: (1000)  
U type: (3000)  
Cable Diameter: φ7.5

Cable Length: (1000)  
Cable Diameter: φ7.5

No.	Description	Material
①	Buzzer Unit	PC
②	LED Unit	Globe: PC
③	Body	PC
④	Pole Bracket	PC
⑤	Pole	AL
⑥	Circular Bracket	PC
⑦	Waterproof Packing	Silicon Rubber
⑧	Cable	PVC

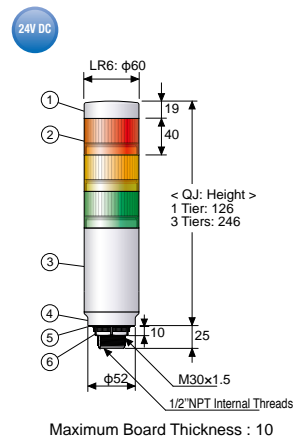
**Mount C** [QJ] Pole Mount with/Folding Bracket & Cable (02: 24V DC)



Cable Length: (950)  
Cable Diameter: φ7.5

No.	Description	Material
①	Buzzer Unit	PC
②	LED Unit	Globe: PC
③	Body	PC
④	Pole Bracket	PC
⑤	Pole	AL
⑥	Folding Bracket	PC
⑦	Waterproof Packing	CR
⑧	Cable	PVC

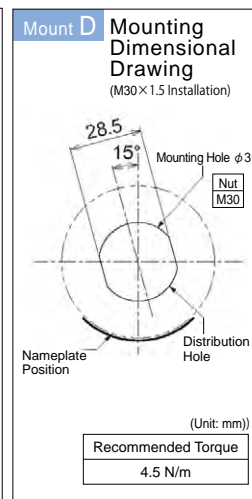
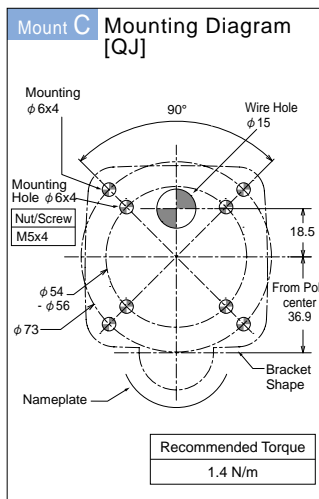
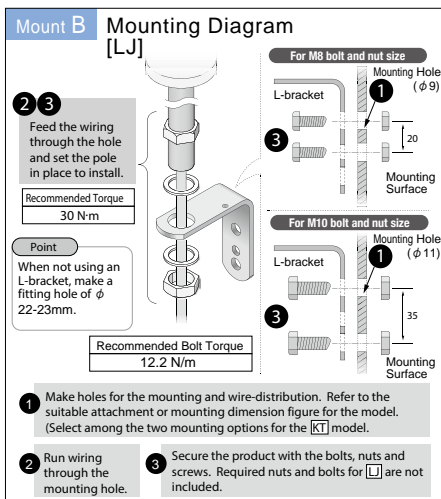
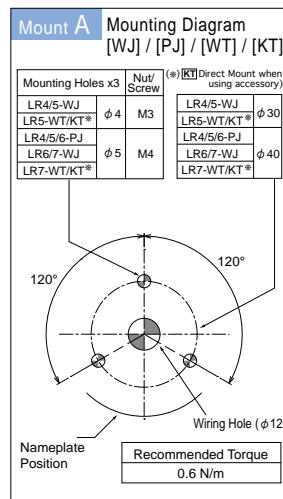
**Mount D** [WC] Direct Mount with M12 Connector (02: 24V DC)



Maximum Board Thickness : 10

No.	Description	Material
①	Head Cover	PC
②	LED Unit	Globe: PC
③	Body	PC
④	Direct Mount Bracket	PC
⑤	Waterproof Packing (≠1)	Silicone Rubber
⑥	M30 Nut	PC

## Mounting Dimensions (Unit: mm)

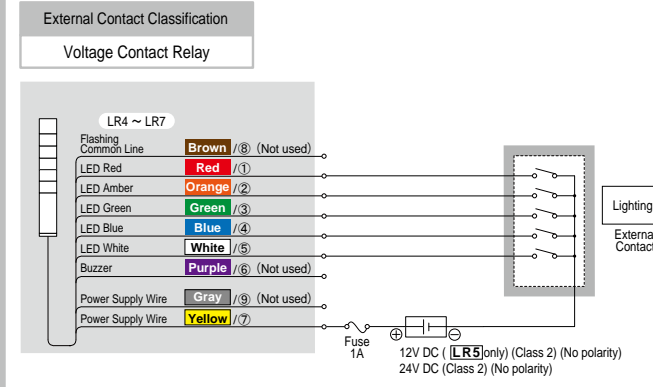


# Wiring Diagrams

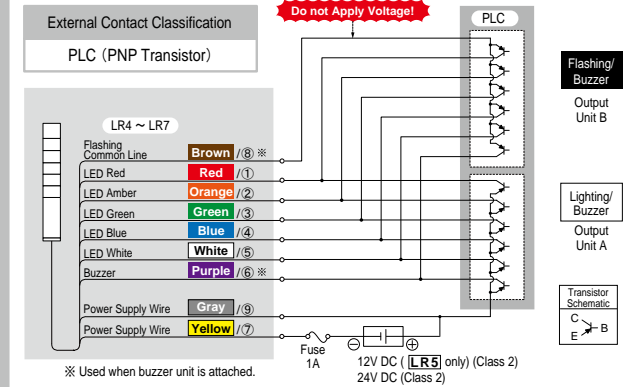
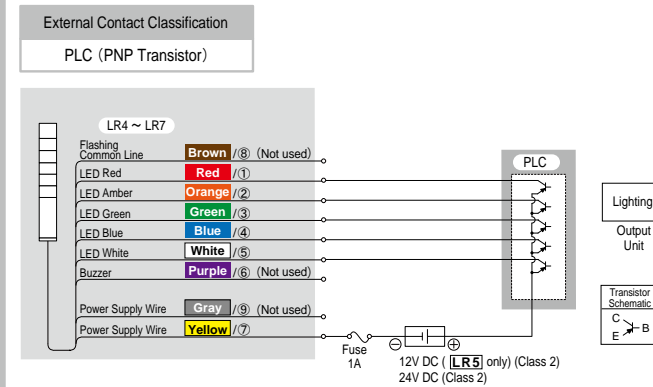
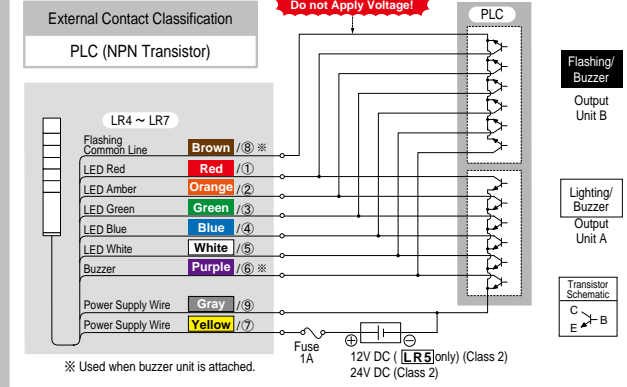
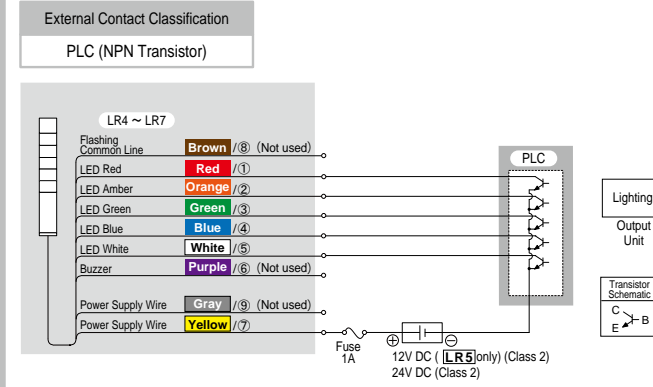
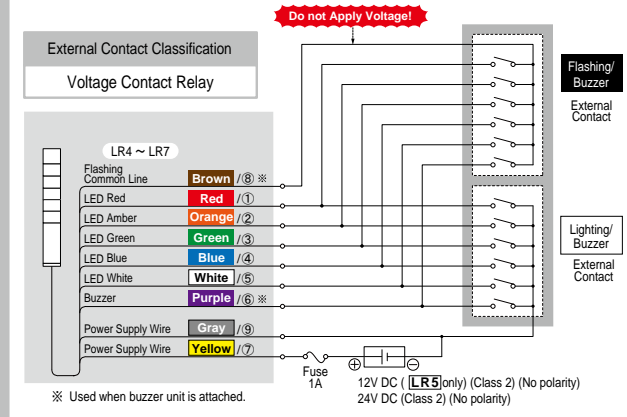
**Wire Type & Wire Gauge**  
 Wire Type.....UL2464  
 Wire Gauge...[01] 12V DC [02] 24V DC  
 Signal Wire : AWG24  
 Power Supply Wire : AWG24

Wiring Example Index	LED Red	RED / ①	PIN No. <b>WT</b> Direct Mount with Terminal Block, <b>KT</b> Mounting Bracket with knock-outs Terminal Block <small>*Note: The lead wire color does not indicate the LED luminescence color. Refer to pg. 16 "Terminal Block Array"</small>
	Function Name	Lead Wire Color (Cable type)	

Product Specifications **01** 12V DC **02** 24V DC

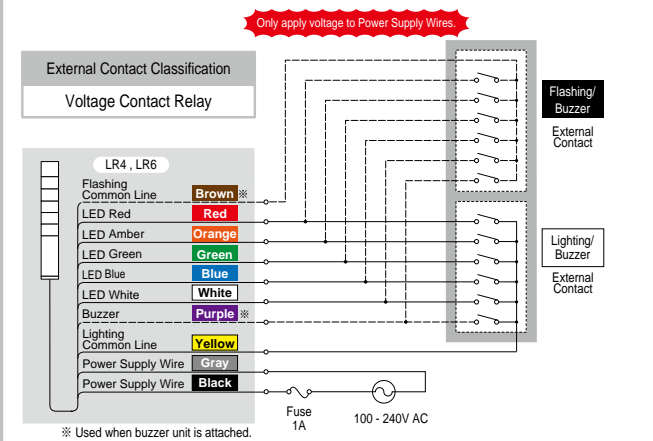


Product Specifications **01** 12V DC **02** 24V DC

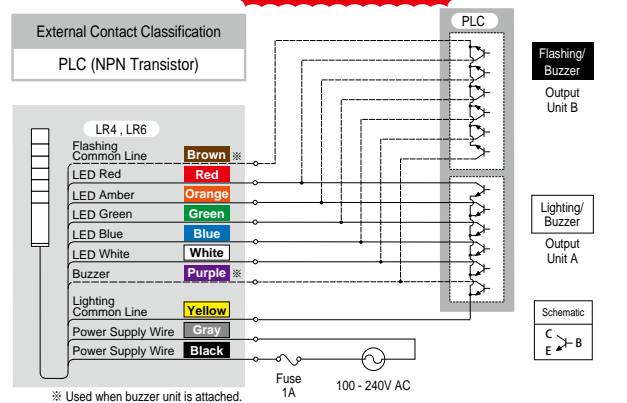


《 LR Series 2-Buzzer Operation Method 》  
 Connecting the Buzzer wire (Purple) with the Flashing Common wire (Brown) will control the selection of two different buzzer sounds.

Product Specifications **M2** 100 - 240V AC



**Wire Type & Wire Gauge**  
 Wire Type.....UL2464  
 Wire Gauge...[M2] 100-240V AC  
 Signal Wire : AWG24  
 Power Supply Wire : AWG18



# Multi-color Wiring Diagrams

Multi-color LED Unit wire colors are **RED** / ①; **Green** / ③; **Blue** / ④. Wire colors **Orange** / ② and **White** / ⑤ are not used.

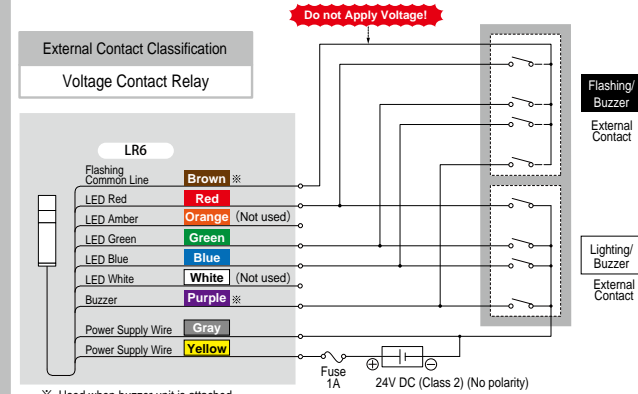
Refer to the Complete User's Manual for details.

## LR6-E-MZ Lighting

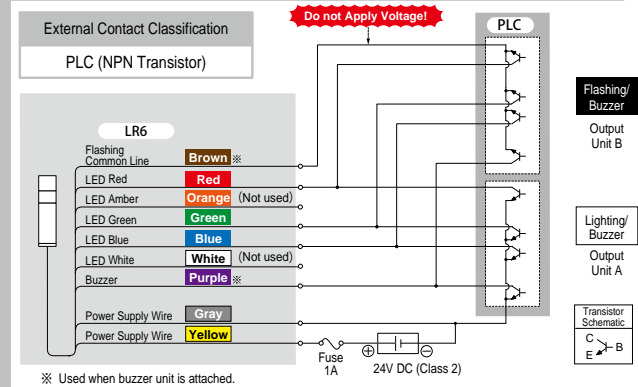
LED Color	Wire Color
Red	Red
Green	Green
Blue	Blue
Amber	Red + Green
Purple	Red + Blue
Cyan	Green + Blue
White	Red + Green + Blue

## Lighting / Flashing / Buzzer (LR6-E-MZ)

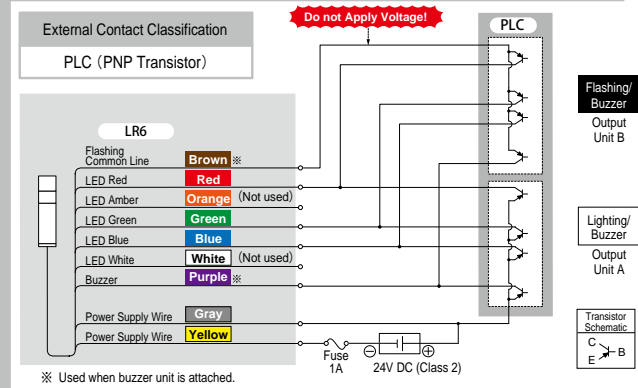
Product Specifications **02** 24V DC



※ Used when buzzer unit is attached.



※ Used when buzzer unit is attached.



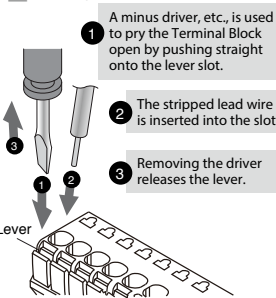
※ Used when buzzer unit is attached.

### Point

- When flashing the LR6-E-MZ simultaneously with the LR6-E-R(Z)/Y(Z)/G(Z)/B(Z)/C, the flashing cycle of the LR6-E-MZ may shift from the other LED units.

## [WT],[KT] Terminal Type

### Wiring Method



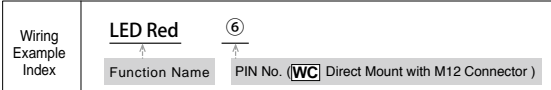
### Terminal Block Array

9	Black	Power (Signal)
8	Grey	Flashing Common
7	Yellow	Power (Common)
6	Grey	Buzzer
5	White	LED White
4	Blue	LED Blue
3	Green	LED Green
2	Orange	LED Yellow
1	Red	LED Red

Wire Type	Wire (Solid)	Wire (Frayed)
UL1007 / UL1430	0.14 - 1.5mm	AWG30 - 14

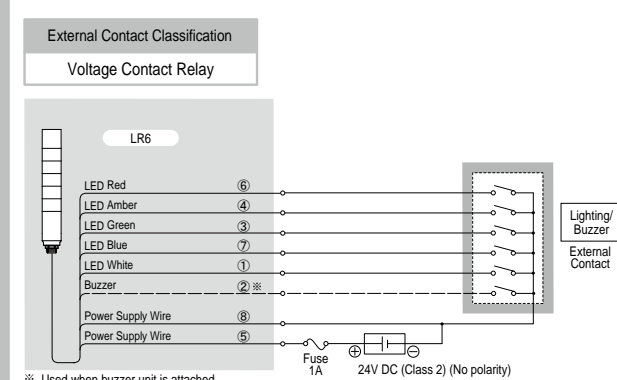
• Temperature rating should be above 75°C, and the conductor material should be of copper wire.

# M12 (LR6-WC)Wiring Diagrams

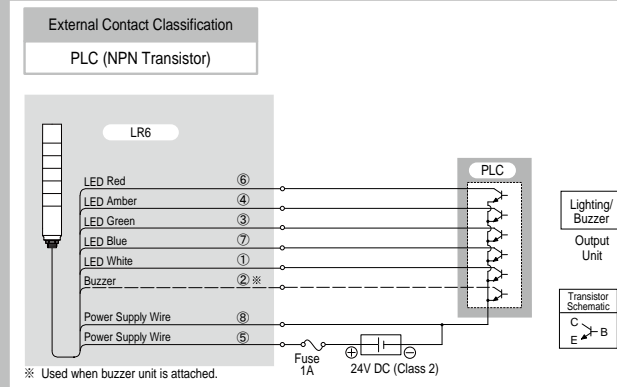


## Lighting / Buzzer (LR6-WC)

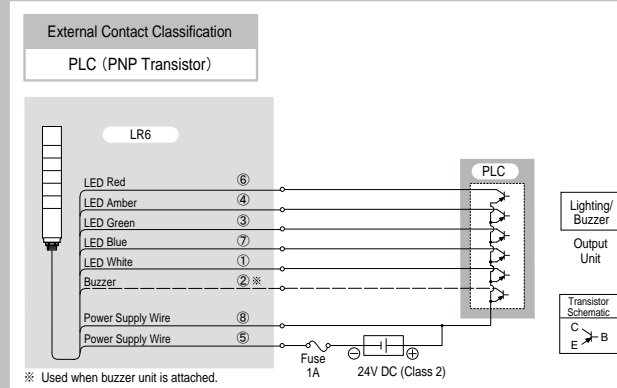
Product Specifications **02 WC** 24V DC



※ Used when buzzer unit is attached.



※ Used when buzzer unit is attached.

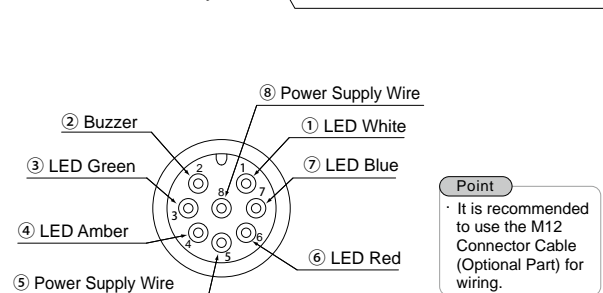


※ Used when buzzer unit is attached.

### Point

- The flashing function cannot be used.

## M12 Connector Pin Layout



### Point

It is recommended to use the M12 Connector Cable (Optional Part) for wiring.



# Wiring Diagrams

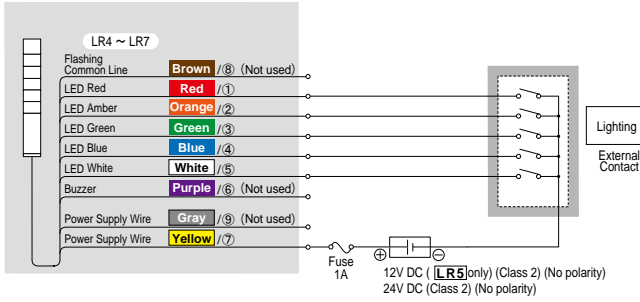
**■ Wire Type & Wire Gauge**  
 Wire Type.....UL2464  
 Wire Gauge...[01] 12V DC [02] 24V DC  
 Signal Wire : AWG24  
 Power Supply Wire : AWG24

Wiring Example Index	<b>LED Red</b>	<b>RED</b> / ①	PIN No. <b>WT</b> Direct Mount with Terminal Block, <b>KT</b> Mounting Bracket with knock-outs Terminal Block <small>*Note- The lead wire color does not indicate the LED luminescence color. Refer to pg. 16 "Terminal Block Array"</small>
	Function Name	Lead Wire Color (Cable type)	

Product Specifications **01** 12V DC **02** 24V DC

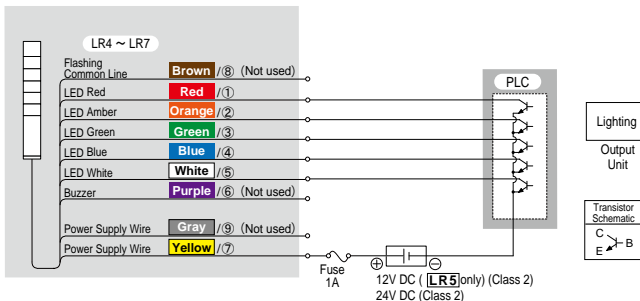
### External Contact Classification

#### Voltage Contact Relay



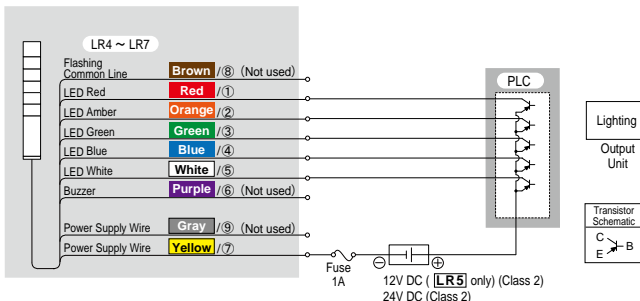
### External Contact Classification

#### PLC (NPN Transistor)



### External Contact Classification

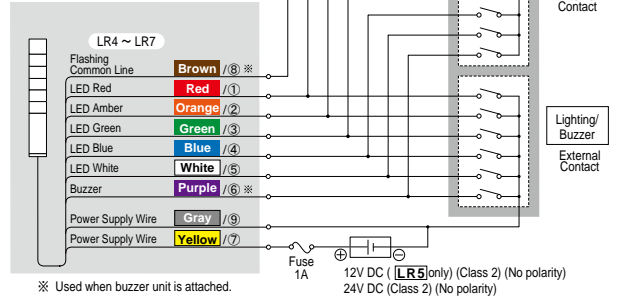
#### PLC (PNP Transistor)



Product Specifications **01** 12V DC **02** 24V DC

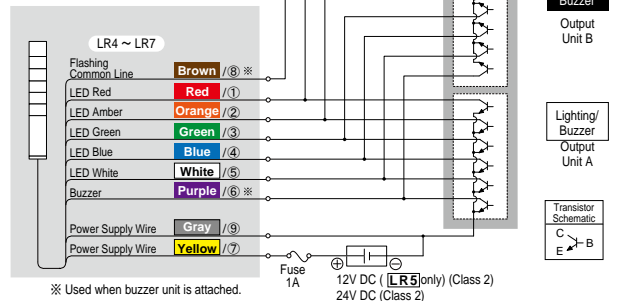
### External Contact Classification

#### Voltage Contact Relay



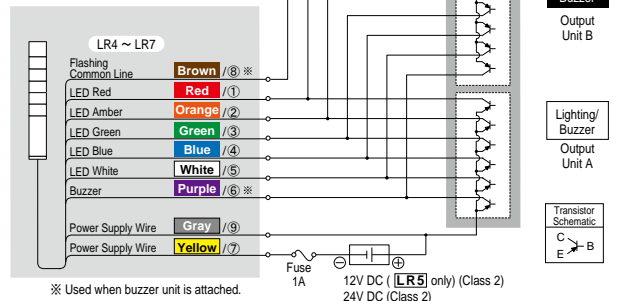
### External Contact Classification

#### PLC (NPN Transistor)



### External Contact Classification

#### PLC (PNP Transistor)

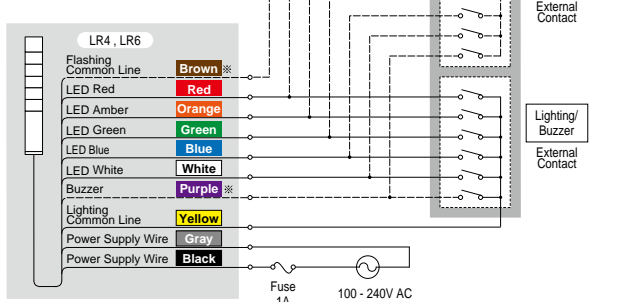


《 LR Series 2-Buzzer Operation Method 》  
 Connecting the Buzzer wire (Purple) with the Flashing Common wire (Brown) will control the selection of two different buzzer sounds.

Product Specifications **M2** 100 - 240 V AC

### External Contact Classification

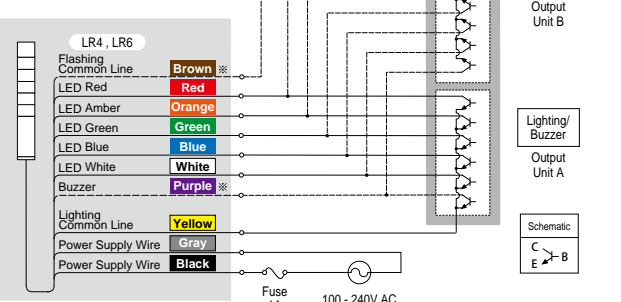
#### Voltage Contact Relay



Product Specifications **■ Wire Type & Wire Gauge**  
 Wire Type.....UL2464  
 Wire Gauge...[M2] 100-240V AC  
 Signal Wire : AWG24  
 Power Supply Wire : AWG18

### External Contact Classification

#### PLC (NPN Transistor)



# Signal Tower

## LR Series Optional Parts

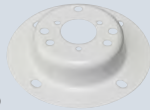
### Direct Mount Brackets



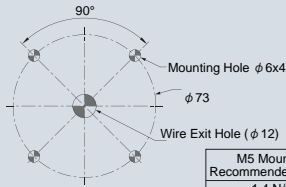
#### Circular Bracket

Model: SZW-001W

Material: SPCE



■ Mounting Dimensions (Unit: mm)



M5 Mounting Recommended Torque 1.4 N/m

#### Wall-mount Bracket

Model: SZK-002W/U/K

Material: PC



■ Mounting Dimensions (Unit: mm)



M5 Mounting Recommended Torque 1.4 N/m

Model: SZK-003W/U/K

Material: PC



Model: SZK-004W

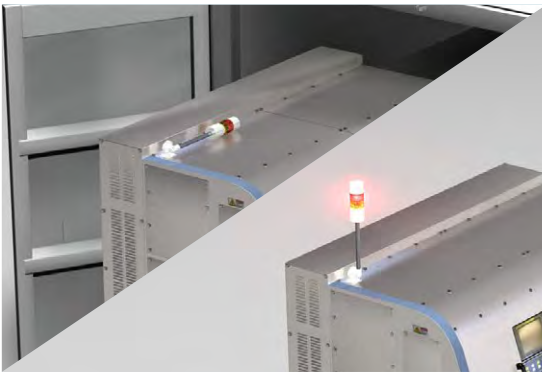
Material: PC



The wiring can exit through the bracket.

※An M16xP1.5 cable gland attachment needs to be purchased in addition

### N Type Aluminum Pole Brackets



#### Folding Bracket

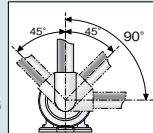
Model: SZQ-001W

Accessories: Pole Waterproof Ring Binding Head Tapping Screw (2 pcs.)

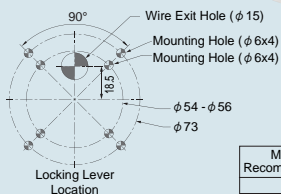
Material: PC



■ Folding Range



■ Mounting Dimensions (Unit: mm)

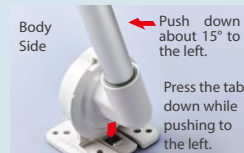


M5 Mounting Recommended Torque 1.4 N/m

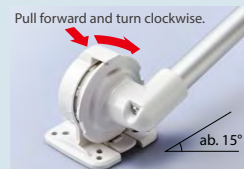


See the Movie!

1 Depressing a locking lever on the left side of the folding bracket releases it to be lowered.



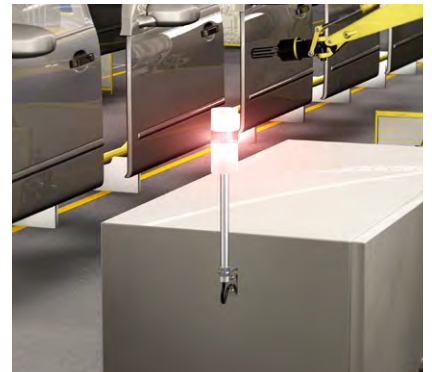
2 Press the folding bracket forward and push about 15° in the clockwise direction.



3 The folding bracket is pushed down to the right (clockwise) until it locks in place with a "Click" sound.



### T Type Aluminum Pole Brackets



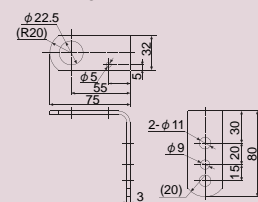
#### L-bracket

Model: SZL-001

Material: SPHC-P



■ Mounting Dimensions (Unit: mm)

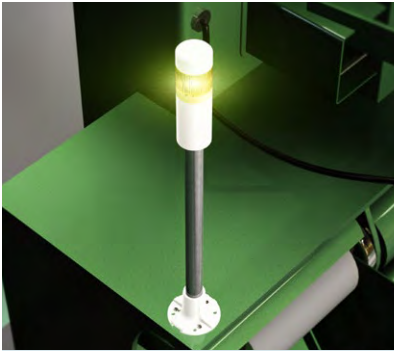


Screw, Nut  
※1 : M8x2pcs.  
※2 : M10x2pcs.  
Recommended screw Torque 12.2 Nm

Network  
Signal Tower  
Signal Light  
Revolving Warning Light  
Cube Tower  
Audibles  
Hybrid Signaling Devices  
LED Illumination  
Options



## N Type Aluminum Pole Brackets



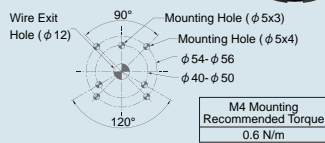
### Circular Multiple-mount Bracket

Model: **SZP-001W/U/K**

Accessories: Waterproof Packing Pole Waterproof Ring Binding Head Tapping Screw (2 pcs.)

Material: PC

■ Mounting Dimensions (Unit: mm)



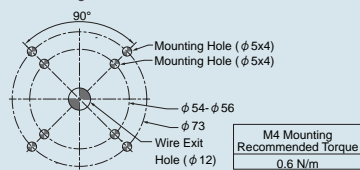
### Circular Bracket

Model: **SZP-002U**

Accessories: Pole Waterproof Ring Binding Head Tapping Screw (2 pcs.)

Material: ADC12

■ Mounting Dimensions (Unit: mm)



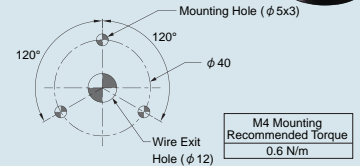
### Circular Bracket

Model: **SZP-003W/U/K**

Accessories: Waterproof Packing Pole Waterproof Ring Binding Head Tapping Screw (2 pcs.)

Material: PC

■ Mounting Dimensions (Unit: mm)



## N & T Aluminum Pole Brackets



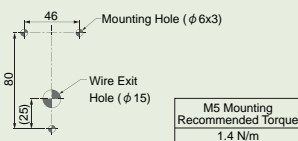
### Wall-mount Bracket

Model: **SZK-001U**

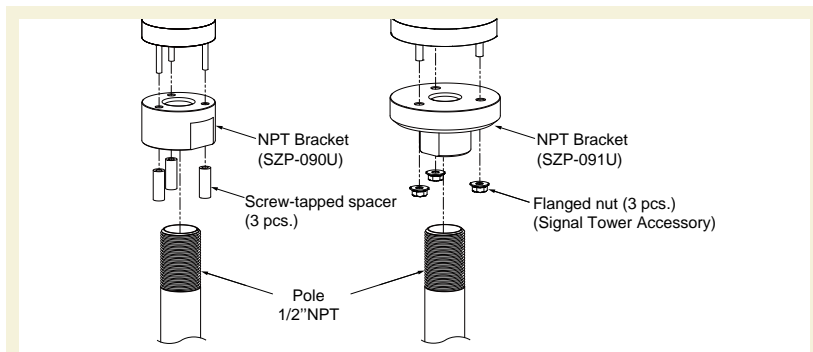
Accessories: Hexagon Socket Set Screw (2 pcs.)

Material: ADC12

■ Mounting Dimensions (Unit: mm)



## 1/2" Type Pole Brackets



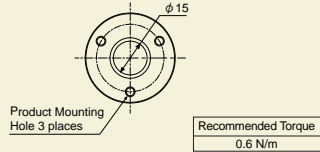
### NPT Bracket

Model: **SZP-090U**

Accessories: Screw-tapped spacer (3 pcs.)

Material: AL

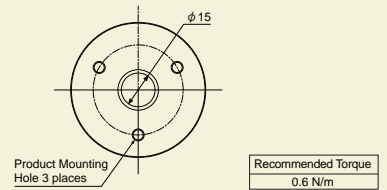
■ Mounting Dimensions (Unit: mm)



Model: **SZP-091U**

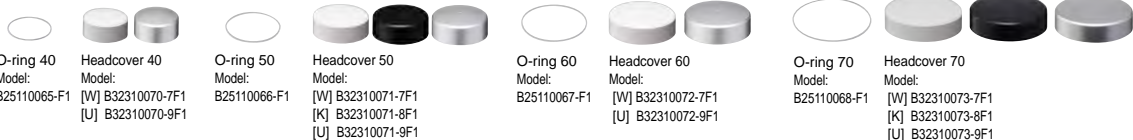
Material: AL

■ Mounting Dimensions (Unit: mm)



## Replacement Parts

### ■ O-ring (5 per pack)/Headcover



### ■ Base Unit

- Adaptor for Aluminum Pole O-ring, Binding Head Tapping Screw for pole fixing and Pole Waterproof Ring are included.



Model: [W] B22210159-7F1 [U] B22210159-9F1



Model: [W] B22210160-7F1 [K] B22210160-8F1 [U] B22210160-9F1



Model: [W] B22210161-7F1 [U] B22210161-9F1



Model: [W] B22210178-7F1 [K] B22210178-8F1 [U] B22210178-9F1

### ■ Terminal Block (LR5 & LR7 only)



Model: Z69544511-F1

### ■ Filter Sheet (5 per pack)



LR4 LED Unit Sheet Model: B25310067-4F1



LR5 LED Unit Sheet Model: B25310067-5F1



LR6 LED Unit Sheet Model: B25310067-6F1



LR7 LED Unit Sheet Model: B25310067-7F1



# Corresponding Model - Pole List

## Each Bracket Compatible Model

Model	Model Name	LR4	LR5	LR6	LR7
	<b>SZP-001W[U][K]</b>	PJ, QJ	PJ, KT *1	PJ, QJ	KT *1
	<b>SZP-002U</b>	PJ, QJ	PJ, KT *1	PJ, QJ	KT *1
	<b>SZP-003W[U][K]</b>	PJ, QJ	PJ, KT *1	PJ, QJ	KT *1
	<b>SZP-090U</b>	WJ	WJ, WT, KT *2	-	-
	<b>SZP-091U</b>	-	-	WJ	WJ, WT, KT *2
	<b>SZL-001</b>	LJ	LJ, KT *1	LJ	LJ, KT *1
	<b>SZQ-001W</b>	PJ, QJ	PJ, KT *1	PJ, QJ	KT *1
	<b>SZK-001U</b>	PJ, QJ	PJ, KT *1	PJ, QJ	KT *1
	<b>SZK-002W[U][K]</b>	WJ	WJ, WT, KT *2	-	-
	<b>SZK-003W[U][K]</b>	-	-	WJ	WJ, WT, KT *2
	<b>SZK-004W</b>	-	-	WJ	WJ, WT, KT *2
	<b>SZW-001W</b>	WJ	WJ, WT, KT *2	WJ	-



\*1 Required pole and pole waterproof ring are not included with KT. \*2 KT Direct Mount (Using accessory)

## Aluminum Poles

Aluminum Poles (Binding Head Tapping Screw (2pcs.) included.)

\*If the pole is to be cut by the customer, it cannot be cut with a pole cutter. Please use a band saw, jigsaw, or sawing machine, etc.

\*To convert from direct mount to pole mount, be sure to purchase the appropriate bracket and pole combination to make the change.

Model Type	Model Name	SZP-001W	SZP-002U	SZP-003W	SZQ-001W	SZK-001U	SZL-001
 AN Type ANK Type	<b>POLE22-0100AN[K] 100mm</b>	○	○	○	○	○	×
	<b>POLE22-0300AN[K] 300mm</b>	○	○	○	○	○	×
	<b>POLE22-0500AN 500mm</b>	×	○	×	×	○	×
	<b>POLE22-0800AN[K] 800mm</b>	×	○	×	×	○	×
	<b>POLE22-1000AN 1000mm</b>	×	○	×	×	○	×
 T Type	<b>POLE22-0100AT 100mm</b>	×	×	×	×	○	○
	<b>POLE22-0300AT 300mm</b>	×	×	×	×	○	○
	<b>POLE22-0500AT 500mm</b>	×	×	×	×	○	○
	<b>POLE22-0800AT 800mm</b>	×	×	×	×	○	○
	<b>POLE22-1000AT 1000mm</b>	×	×	×	×	○	○

# Compatible Direct Mount Bracket



**SZW-940U**



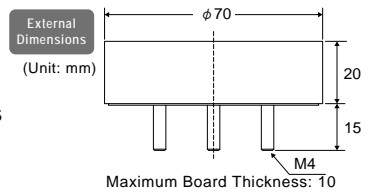
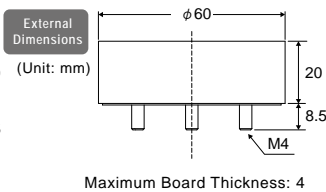
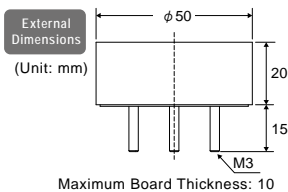
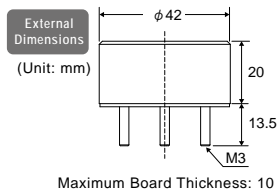
**SZW-950U**



**SZW-960U**



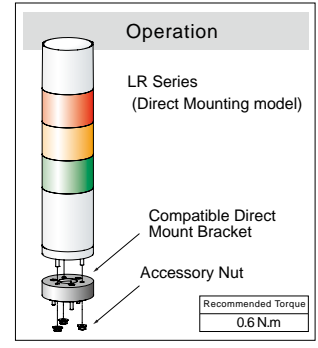
**SZW-970U**



Use these conversion brackets to mount the LR Series Direct Mounting model with mounting holes that already exist for the Signal Tower. If you cannot draw new mounting holes where you were using a previous model, use a compatible direct mount bracket to mount the LR Series.

Accessory	
SZW-940U	Nut with Flange (M3) x 3
SZW-950U	Nut with Flange (M3) x 3
SZW-960U	Nut with Flange (M4) x 3
SZW-970U	Nut with Flange (M4) x 3

Model Name	Size of Corresponding Signal Tower	Corresponding Models	
		Previous	New
<b>SZW-940U</b>	φ 40	LCE-W LCE-AW	LR4-WJ
<b>SZW-950U</b>	φ 50	LE-W LES-AW LU5	LR5-WJ LR5-WT
<b>SZW-960U</b>	φ 60	LME-W	LR6-WJ
<b>SZW-970U</b>	φ 70	LHE LU7	LR7-WJ LR7-WT



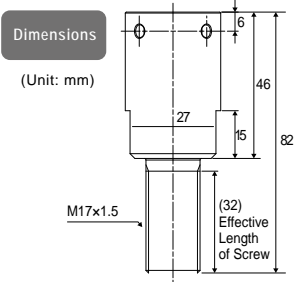
**!** Pole mounting is not compatible.



	Type	Material	Pole Diameter
Previous product	LCE-A, LCS	Steel	φ 17.3
	LE, LES	Steel	φ 17.3
	LU5	-	-
	LME, LMS	L: Steel, P: Aluminum	φ 21.7
	LHE	-	-
New product	LU7	-	-
	LR	Aluminum	φ 21.7

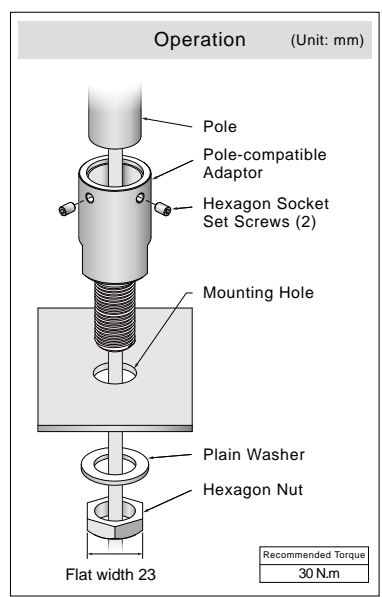
# Pole-compatible Adaptor

This conversion adaptor enables mounting LR Series Pole model (21.7mm) where a previous pole model (17.3mm) Signal Tower was mounted. By using this adaptor, you can mount a new unit where you were using a previous pole (17.3mm).



Accessory	
Hexagon Socket Set Screws x 2	
Hexagon Nut (M17) x 1	
Plain Washer (φ 17.5 x φ 28 x t2.0) x 1	

Model Name	Corresponding Models	
	Previous	New
<b>SZP-917U</b>	LCE/LCE-A LCS/LCS-A LE/LES-A	LR□-□□□LJ□□ POLE22-□□□□AT





# HSST

- Network
- Signal Tower
- Signal Light
- Revolving Warning Light
- Cube Tower
- Audibles
- Hybrid Signaling Devices
- LED Illumination
- Options



Compatible with WD-Z2 Series



[When lights are off]

Control signal lights ON and OFF with a 3-point switch for red, amber, and green.  
\*Cannot control flashing / buzzer.

Colors	Red, Amber, Green, (Clear globe)
Globe	Polycarbonate resin, high shock resistance and heat resistance

Maintenance-free LED illumination  
3-button switch box with mounting screws  
AC power adapter (100-240VAC) with 5ft. cable  
LED colors: red, amber, green.



### Contents

The HSST Kit Includes:

- ① Signal Tower x1
- ② Long pole x 1
- ③ Metal fitting for mounting x 1
- ④ Screw x 1
- ⑤ Bracket x 1
- ⑥ Mounting screws x 2
- ⑦ Double-sided tape x 1
- ⑧ Switch box x 1
- ⑨ AC adaptor x 1

### Assembly Process



Mounting example

### Assembly Process Alarms

- Problem Alarm
- Parts Low Alarm
- Help Needed Alarm



### Call center

### Call status display

- Call for Help
- Oh hold
- Call in progress

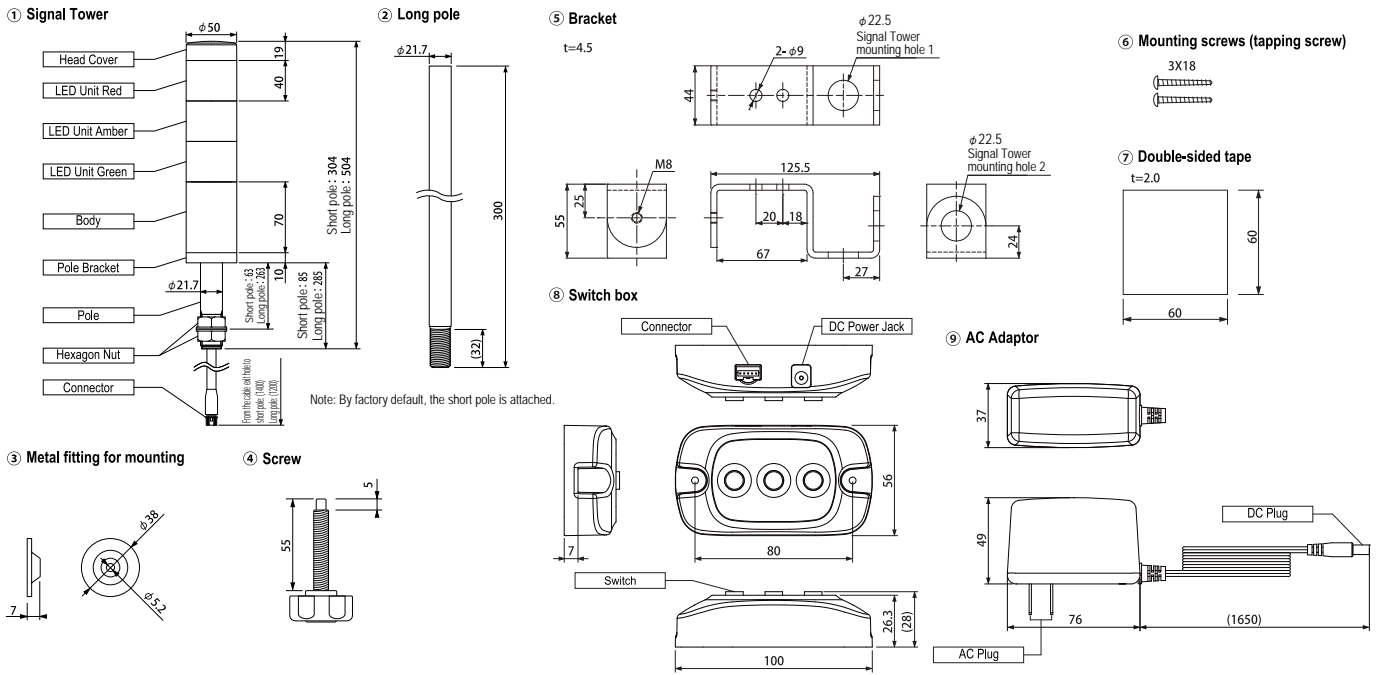
- IP54
- RoHS
- 50  
φ
- Switch  
ON / OFF
- UL

(For signals only, switch box is IP20)

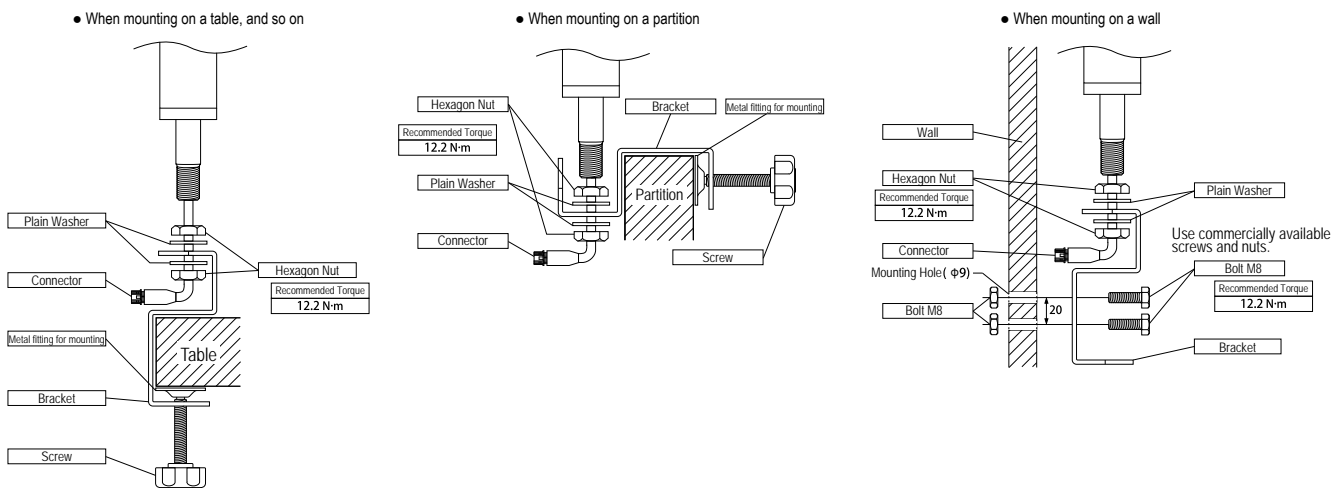
## Specifications

Model		HSST-3M2-RYG		Mass (Tolerance: ±10%)	Signal Tower (short pole)	0.36kg
Rated Voltage		100 - 240V AC (50/60Hz)			Signal Tower (long pole)	0.47kg
Operating Voltage Range		Rated Voltage ±10%			Bracket	0.33kg
Rated Power Consumption	Maximum	When all tiers are illuminated			Switch box	0.07kg
		4W			AC Adaptor	0.14kg
Operating Temperature Range		0°C - +40°C			Metal fitting for mounting, screw	0.05kg
Mounting location		Indoors				
Mounting direction		Upright				

## Dimensions (mm)



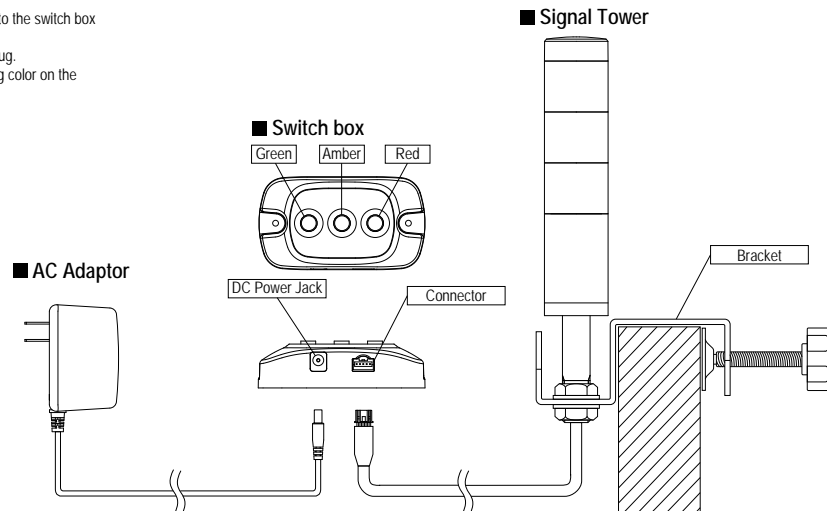
## Mounting Method



## Wiring Diagram

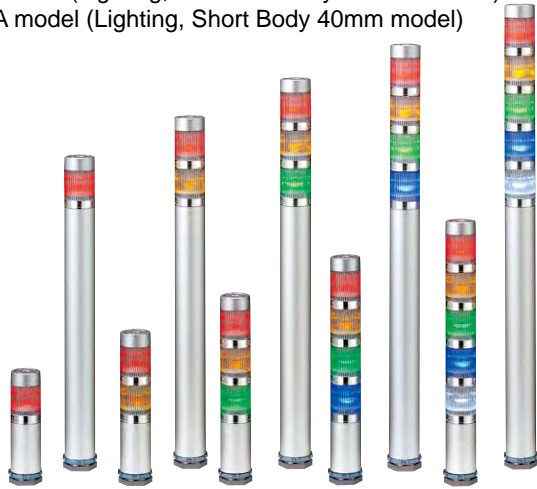
- Connect the Signal Tower cable and AC Adaptor to the switch box connector and DC jack. Apply the rated voltage to the AC Adaptor's AC plug. Each time you press the switch, the corresponding color on the Signal Tower's LED Unit turns on and off.

Switch status	
Light off	Lighting
Switch	Switch



# ME-A / MES-A

ME-A model (Lighting, Standard Body 200mm model)  
 MES-A model (Lighting, Short Body 40mm model)



<b>Colors</b>	Red, Amber, Green, Blue, White
<b>Globe</b>	Polycarbonate lens with high shock resistance and heat resistance

Direct mounted, 25mm diameter, super slim signal towers featuring corrosion resistant aluminum bodies. LED unit lenses are clear when off and color when activated to reduce false indication.

- Hybrid prism-cut lens enhance visibility from any direction and distance
- Direct mounts to a single hole
- Interchangeable modules eliminate the need to rewire
- Superior impact and heat resistant polycarbonate lens for superior durability and light emission
- Available Colors: Red, Amber, Green, Blue, Clear/White

- Standard Colors:
  - 1 Tier model / Red (-R), Amber (-Y), Green (-G), Blue (-B), White (-C)
  - 2 Tier model / Red-Amber (-RY), Red-Green (-RG)
  - 3 Tier model / Red-Amber-Green (-RYG)
  - 4 Tier model / Red-Amber-Green-Blue (-RYGB)
  - 5 Tier model / Red-Amber-Green-Blue-White (-RYGBC)

## Specifications

Standard Body (mm)				
Model	Rated Voltage	Number of tiers	Power Consumption	Mass
ME-102A	24V DC	1	0.6W	0.22kg
ME-102A			0.6W	
ME-102A			0.5W	
ME-102A			0.5W	
ME-102A			0.5W	
ME-202A	24V DC	2	1.2W	0.23kg
ME-202A			1.1W	
ME-202A			1.1W	
ME-202A			1.1W	
ME-202A			1.1W	
ME-302A	24V DC	3	1.7W	0.24kg
ME-302A			1.7W	
ME-302A			1.7W	
ME-302A			1.7W	
ME-402A	24V DC	4	2.3W	0.25kg
ME-402A			2.3W	
ME-502A	24V DC	5	2.8W	0.26kg

Short Body (mm)				
Model	Rated Voltage	Number of tiers	Power Consumption	Mass
MES-102A	24V DC	1	0.6W	0.12kg
MES-102A			0.6W	
MES-102A			0.5W	
MES-102A			0.5W	
MES-102A			0.5W	
MES-202A	24V DC	2	1.2W	0.13kg
MES-202A			1.1W	
MES-202A			1.1W	
MES-202A			1.1W	
MES-202A			1.1W	
MES-302A	24V DC	3	1.7W	0.14kg
MES-302A			1.7W	
MES-302A			1.7W	
MES-302A			1.7W	
MES-402A	24V DC	4	2.3W	0.15kg
MES-402A			2.3W	
MES-502A	24V DC	5	2.8W	0.16kg

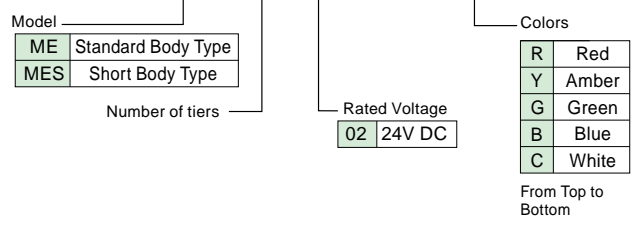
• To use Green, Blue, White instead of Red, Amber, there is an additional cost per unit.

### ■ Replacement Parts for Changing Colors

Replacement Parts	Part Number	Replacement Parts	Part Number
Red LED Unit (Clear lens model)	B72100223-1F1	Shaft for 1 tier	S33552110-0346F1
Amber LED Unit (Clear lens model)	B72100223-2F1	Shaft for 2 tiers	S33552110-0376F1
Green LED Unit (Clear lens model)	B72100115-3F1	Shaft for 3 tiers	S33552110-03108F1
Blue LED Unit (Clear lens model)	B72100115-4F1	Shaft for 4 tiers	S33552110-03138F1
White LED Unit (Clear lens model)	B72100115-7F1	Shaft for 5 tiers	S33552110-03168F1

**Model Code**

# ME-302A-RYG

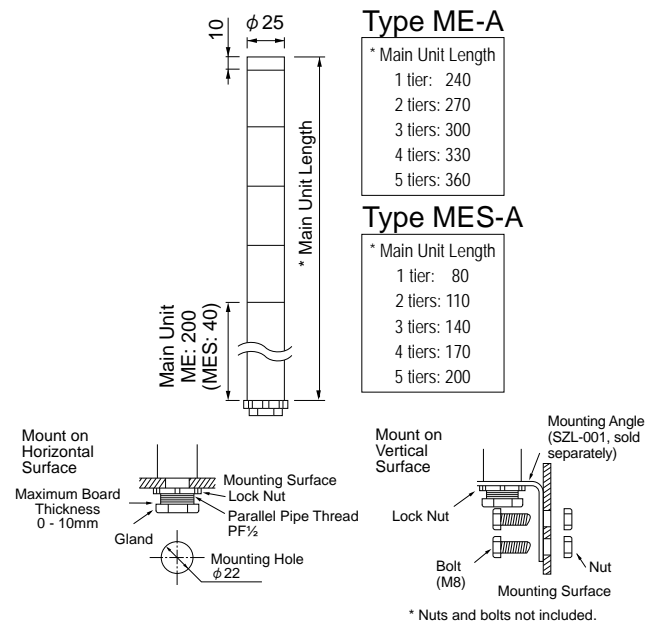


**Optional Parts**

For details, see pages 182 to 187.

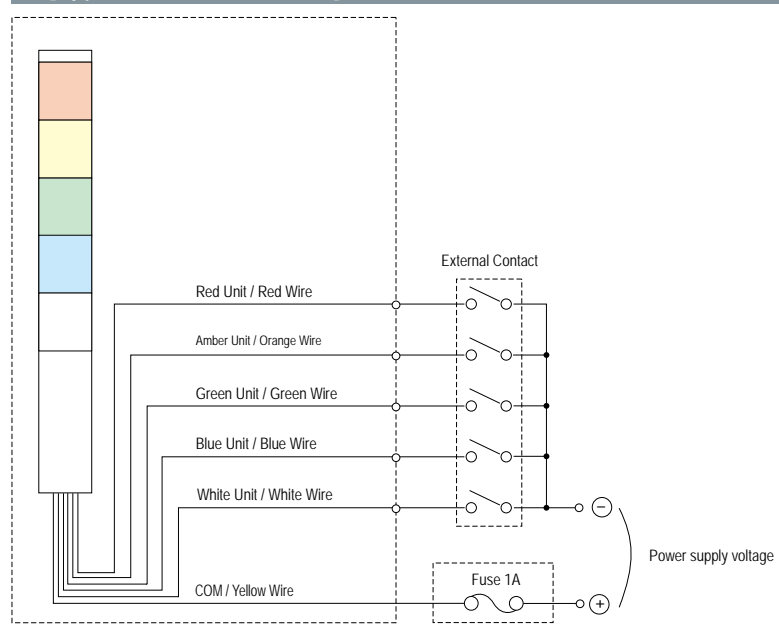
Optional Parts	Model
L Angle	SZL-001

**Dimensions (mm)**



**Wiring Diagram**

[Type ME/MES-□□□A]



**Corresponding Signal Wire Colors**

LED Unit Colors	Corresponding Signal Wire Color
Red	Red
Amber	Orange
Green	Green
Blue	Blue
White	White

Nominal Cross-sectional Area : Wire Type : Wire Length

Type ME-A 0.3mm<sup>2</sup> : UL1007 : 300mm

Type MES-A 0.3mm<sup>2</sup> : UL1007 : 460mm

(For multiple LED units of the same color, they illuminate at the same time.)

**Signal Wire Voltage and Current per tier**

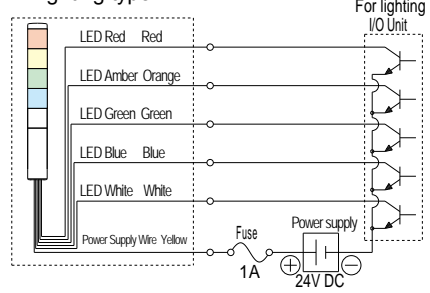
Voltage	Signal Wire Voltage	Signal Wire Current
24V DC	24V DC	Red-Amber: 25.2mA Green-Blue-White: 13.3mA

\* Set aside ample capacity for the external contact, considering the Signal Wire Current and Inrush Current.

**Example: 24V DC driven by NPN Transistor**

**24V DC, NPN type transistor**

• Lighting type



**Transistor Capacity**

Model	Transistor (NPN)
Current Capacity	Ic ≥ 50mA
Withstand Voltage	Vc ≥ 35V
Leakage Current	IL < 0.1mA

# MP/MPS

Type MP (Lighting, Standard Body 220mm model)  
 Type MPS (Lighting, Short Body 45mm model)

**Colors** Red, Amber, Green, Blue, White  
**Globe** The material is AS resin, with high weather resistance and translucence.

Network

Signal Tower

Signal Light

Revolving Warming Light

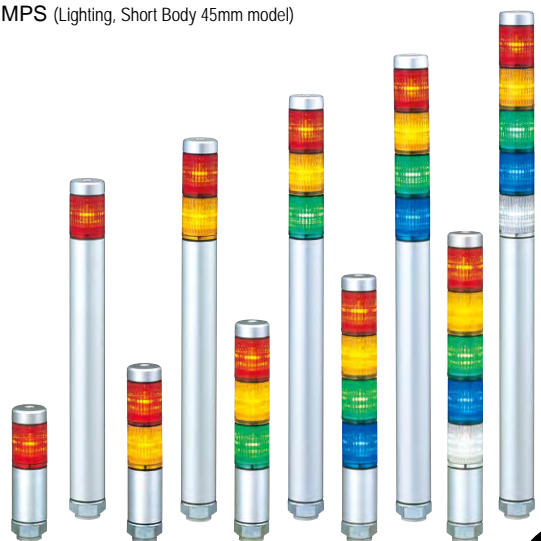
Cube Tower

Audibles

Hybrid Signaling Devices

LED Illumination

Options



Optional MP-B Buzzer

30mm diameter, slim signal towers featuring corrosion resistant aluminum bodies and an optional 80 dB audible alarm.

- Hybrid prism-cut lens enhance visibility from any direction and distance
- Direct mounts to a single hole
- Interchangeable modules eliminate the need to rewire
- Sleek and smooth form carrying an IP65 protection rating for dust and water resiliency
- Available Colors: Red, Amber, Green, Blue, Clear/White
- Standard Colors:
  - 1 Tier model / Red (-R), Amber (-Y), Green (-G), Blue (-B), White (-C)
  - 2 Tier model / Red-Amber (-RY), Red-Green (-RG)
  - 3 Tier model / Red-Amber-Green (-RYG)
  - 4 Tier model / Red-Amber-Green-Blue (-RYGB)
  - 5 Tier model / Red-Amber-Green-Blue-White (-RYGBC)

## Specifications

Standard Body				
Model	Rated Voltage	Number of tiers	Power Consumption	Mass
MP-102	24V AC/DC	1	0.7W	0.21kg
MP-202		2	1.4W	0.23kg
MP-302		3	2.0W	0.25kg
MP-402		4	2.6W	0.27kg
MP-502		5	3.2W	0.29kg

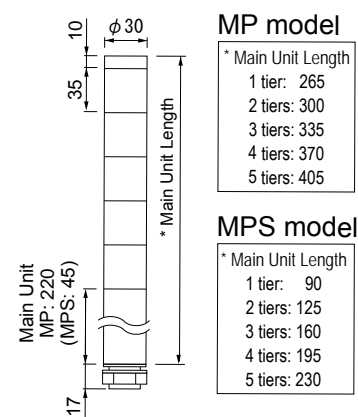
Short Body				
Model	Rated Voltage	Number of tiers	Power Consumption	Mass
MPS-102	24V AC/DC	1	0.7W	0.11kg
MPS-202		2	1.4W	0.13kg
MPS-302		3	2.0W	0.15kg
MPS-402		4	2.6W	0.17kg
MPS-502		5	3.2W	0.19kg

- You can order custom color combinations from one unit. Contact us for the lead time on custom orders.
- There may be additional unit costs when using multiple units in the same color, or a custom combination that uses only non-standard colors. Please contact us for details.

### Replacement Parts for Changing Colors

Replacement Parts	Part Number	Replacement Parts	Part Number
Red LED Unit	B72100182-1F1	Shaft for 1 tier	S33552120-0355F1
Amber LED Unit	B72100182-2F1	Shaft for 2 tiers	S33552120-0390F1
Green LED Unit	B72100182-3F1	Shaft for 3 tiers	S33552120-03125F1
Blue LED Unit	B72100182-4F1	Shaft for 4 tiers	S33552120-03160F1
White LED Unit	B72100182-7F1	Shaft for 5 tiers	S33552120-03195F1

## Dimensions (mm)



**MP model**

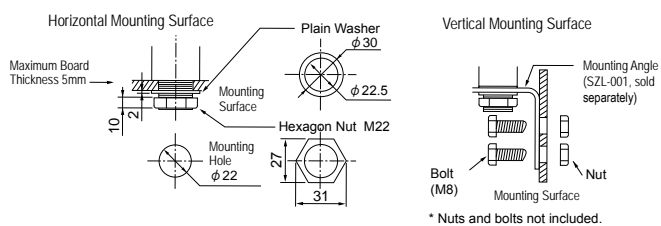
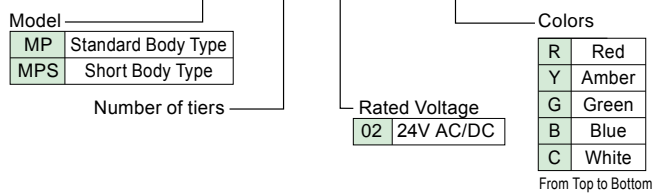
* Main Unit Length
1 tier: 265
2 tiers: 300
3 tiers: 335
4 tiers: 370
5 tiers: 405

**MPS model**

* Main Unit Length
1 tier: 90
2 tiers: 125
3 tiers: 160
4 tiers: 195
5 tiers: 230

## Model Code

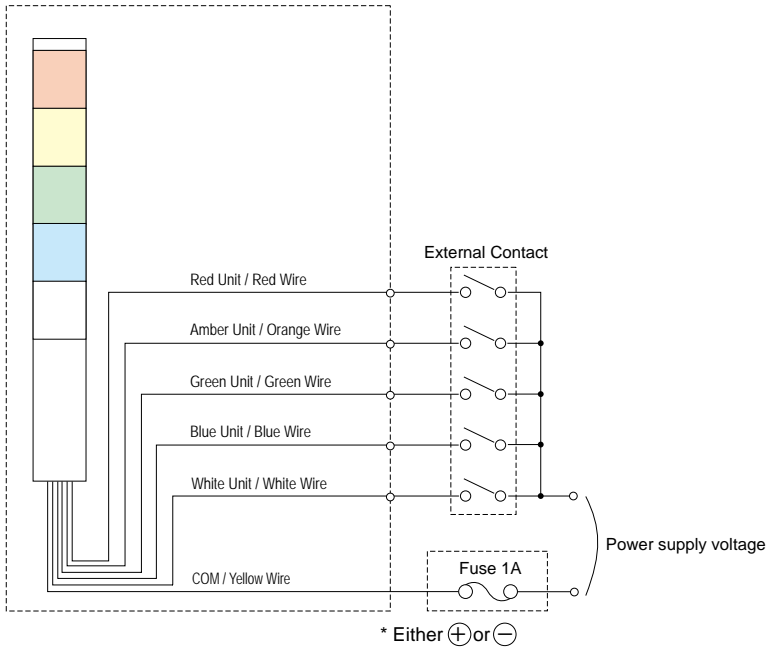
# MP-302-RYG





# Wiring Diagram

[MP/MPS-□□□ model]



## Corresponding Signal Wire Colors

LED Unit Colors	Corresponding Signal Wire Color
Red	Red
Amber	Orange
Green	Green
Blue	Blue
White	White

Nominal Cross-sectional Area	: Wire Type	: Wire Length
MP model : 0.3mm <sup>2</sup>	: UL1007	: 1000mm
MPS model : 0.3mm <sup>2</sup>	: UL1007	: 1180mm

(For multiple LED units of the same color, they illuminate at the same time.)

## Signal Wire Voltage and Current per tier

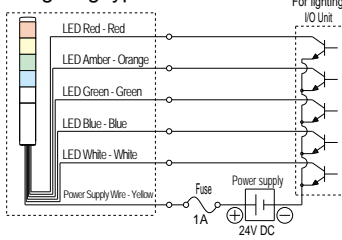
Voltage	Signal Wire Voltage	Signal Wire Current
24V DC	24V DC	Red: 29.0mA, Amber: 29.5mA
24V AC	24V AC	Green-Blue-White: 17.1mA

\* Set aside ample capacity for the external contact, considering the Signal Wire Current.

Example: 24V DC driven by NPN/PNP Transistor

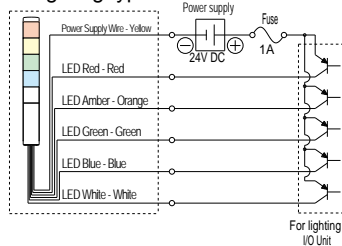
### 24V DC, NPN type transistor

#### Lighting type



### 24V DC, PNP type transistor

#### Lighting type



## Transistor Capacity

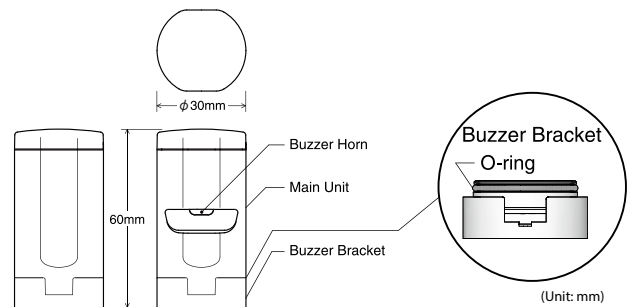
Model	Transistor (NPN)
Current Capacity	I <sub>c</sub> ≥ 50mA
Withstand Voltage	V <sub>c</sub> ≥ 35V
Leakage Current	I <sub>L</sub> < 0.1mA

## Optional Parts

For details, see pages 182 to 187.

Model	Rated Voltage	Sound Level	Power Consumption
MP-B	24V AC/DC	80dB (at 1m)	0.7W

- Double-insulation for enhanced durability and safety.
- Direct mount installation with just a single screw.
- Main body made of heat resistant ABS resin for superior impact resistance.
- Compatible with the MP and MPS Signal Tower. (The Red module is required when using the optional MP-B)
- Operates in conjunction with the Red LED module. (Alarm activation with other colors must be special ordered)



Optional Parts	Model
L Angle	SZL-001

# MP-C/MPS-C

Network

Signal Tower

Signal Light

Revolving Warning Light

Cube Tower

Audibles

Hybrid Signaling Devices

LED Illumination

Options



Optional MP-B Buzzer



## Specifications

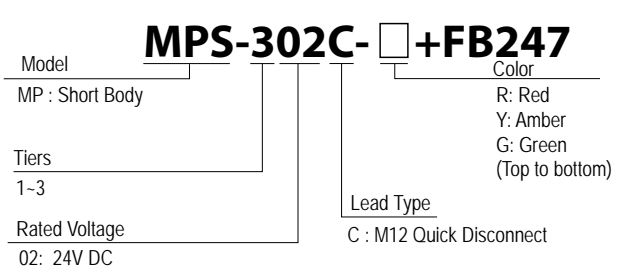
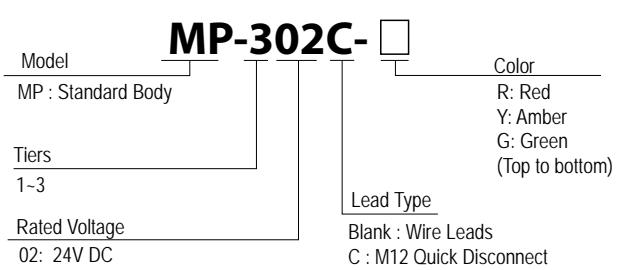
### Standard Body

Stack Number	Model	Rated Voltage	Power Consumption	Mass
1 Tier	<b>MP-102</b>	24V DC	0.7W	240g
2 Tiers	<b>MP-202</b>		1.4W	260g
3 Tiers	<b>MP-302</b>		2.0W	280g

### Short Body

Stack Number	Model	Rated Voltage	Power Consumption	Mass
1 Tier	<b>MPS-102C-□+FB247</b>	24V DC	0.7W	140g
2 Tiers	<b>MPS-202C-□+FB247</b>		1.4W	160g
3 Tiers	<b>MPS-302C-□+FB247</b>		2.0W	180g

## Model Code

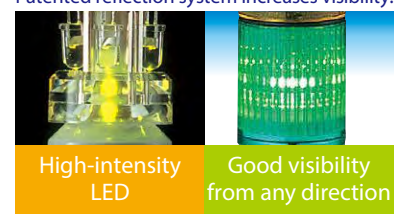


Colors	Red, Amber, Green
Globe	Polycarbonate resin, high shock resistance and heat resistance

30mm diameter, slim signal towers featuring corrosion resistant aluminum bodies and an M12 connection. Hybrid prism-cut lens enhance visibility from any direction and distance

- Direct mounts to a single hole
- Interchangeable modules eliminate the need to rewire
- Sleek and smooth form carrying an IP65 protection rating for dust and water resiliency
- Available Colors: Red, Amber, Green, Blue, Clear/White

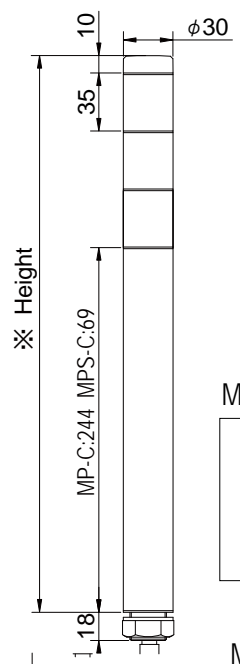
Patented reflection system increases visibility.



High-intensity LED

Good visibility from any direction

## Dimensions (Unit:mm)



MP-C

※ Height
1 Tier : 289
2 Tiers : 324
3 Tiers : 359

MPS-C

※ Height
1 Tier : 114
2 Tiers : 149
3 Tiers : 184

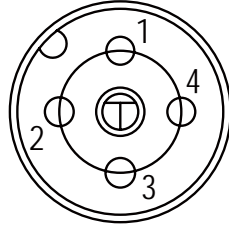
## Wiring Diagram

External Contact Capacity		Is: Current Capacity	Vs: Withstand Voltage
LED Unit (1 Tier)	Current Consumption	Red: 29.0mA Amber: 29.5mA Green: 23.9mA	
	Capacity	Is≥50mA	Vs≥35V DC
Power Supply	Current Consumption	200mA	
	Capacity	Is≥200mA	Vs≥35V DC

• MP-C M12 Connector

M12 Connector Pin No.

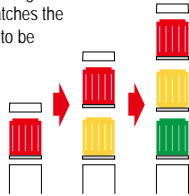
Pin No.	LED Unit Color
1	Green
2	Red
3	Common
4	Amber



M12 Connector Pin Layout

### Easy to add and remove

- When adding or removing modules, the center shaft that matches the amount of tiers has to be purchased.



### Interchangeable LED Modules

Changeable color sequence: Easy to add/ remove up to 3 colored modules even after installation.  
 Note: LED modules of the same color within a signal tower will light up simultaneously.



### Wiring doesn't change

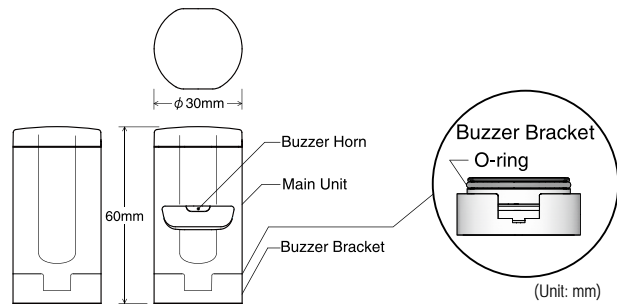
- The LED Module colors correspond to the wiring, so re-wiring is not necessary.

## Optional Parts

For details, see pages 182 to 187.

Model	Rated Voltage	Sound Level	Power Consumption
<b>MP-B</b>	24V AC/DC	80dB (at 1m)	0.7W

- Double-insulation for enhanced durability and safety
- Direct mount installation with just a single screw
- Main body made of heat resistant ABS resin for superior impact resistance
- Compatible with the MP and MPS Signal Tower (The Red module is required when using the optional MP-B)
- Operates in conjunction with the Red LED module (Alarm activation with other colors must be special ordered).



(Unit: mm)

Network

Signal Tower

Signal Light

Revolving Warning Light

Cube Tower

Audibles

Hybrid Signaling Devices

LED Illumination

Options

# LS7

LS7

Network  
Signal Tower  
Signal Light  
Revolving Warning Light  
Cube Tower  
Audibles  
Hybrid Signaling Devices  
LED Illumination  
Options

**Lighting model**

LS7-WH model  
Lighting (Wire model)  
LS7-WC model  
Lighting on (M12 Connector model)

**Buzzer model**

Model LS7-FBWH  
Lighting / Flashing / Buzzer (2 sounds) (Wire model)  
Model LS7-BWC  
Lighting / Buzzer (1 sound) (M12 Connector model)

**Colors**

Red, Amber, Green, Blue, White

**Globe**

Polycarbonate lens with high shock resistance and heat resistance

The LS7 Series features a sleek, smooth body design ideal for hygienic and sanitary cleaning applications. Models available with an M12 connector.

- IP65 standard; IP54 with audible alarm
- Smooth-surface, polycarbonate, shock resistant body design.
- Audible alarm sound options can be heard above machine noise
- High-contrast LED visibility
- Polycarbonate brackets available

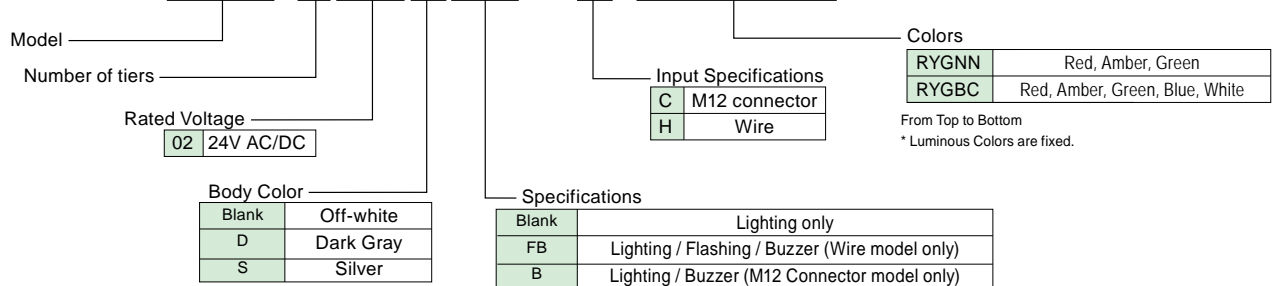


**Specifications**

Model	Number of Luminous Units	Rated Voltage	Mounting Method	Rated Current Consumption	Maximum Current Consumption	Maximum sound pressure	Operation Temperature Range	Protection Rating	Mass (±10%)	Body Color
LS7-302	3	24V DC (±10%)	Direct Mounting (Indoors Only)	Red: 20mA	Red: 35mA	Buzzer 1, approximately 82dB, Wire model (Fast Intermittent) M12 connector model (Continuous beep)	-30°C	Lighting model IP65	With buzzer: 0.26kg	Off-white (Blank) Off-darkgray (D) Silver (S)
LS7-502	5			Amber, Green, Blue, White: 30mA	Amber, Green, Blue, White: 40mA	Buzzer 2, approximately 85dB, Wire model (Fast Alternating Intermittent) M12 connector model (No Buzzer)	60°C	Buzzer model IP54	Without buzzer: 0.35kg	Off-white (Blank) Off-darkgray (D) Silver (S)

**Model Code**

## LS7-502SFBWH-RYGBC



\* F Lighting / Flashing model has H wire only.  
\* For C (M12 Connector model), the buzzer sound is continuous.

**Example: LS7-302WC-RYGNN**

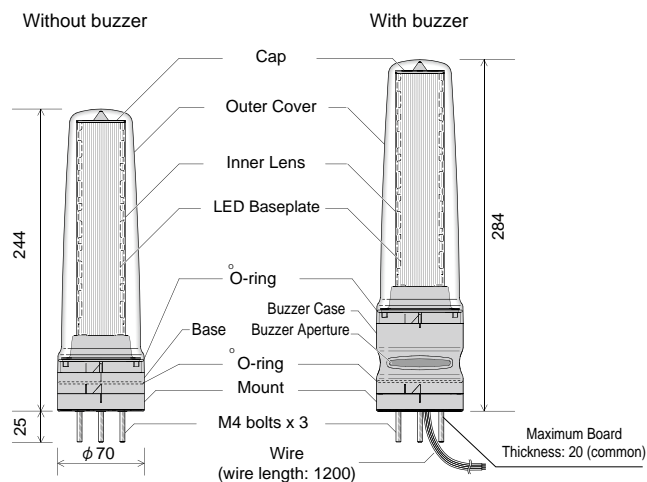
- Body color: Off-white
- Buzzer availability: not available
- LED Color: Red Amber Green (none) (none)
- Illumination specification - Lighting only
- Input specification M12 connector

## Optional Parts

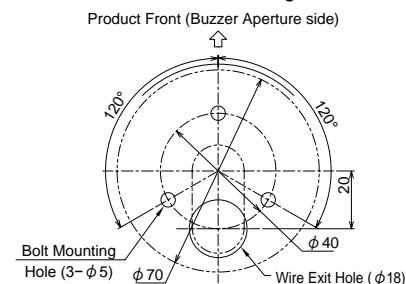
For details, see pages 182 to 187.

Optional Parts	Model
Platform Bracket (Off-white)	<b>Model SZ-100</b>
Platform Bracket (Off-darkgray)	<b>Model SZ-100D</b>
Platform Bracket (Silver)	<b>Model SZ-100S</b>
Wallmount Bracket (Off-white)	<b>Model SZ-110</b>
Wallmount Bracket (Off-darkgray)	<b>Model SZ-110D</b>
Wallmount Bracket (Silver)	<b>Model SZ-110S</b>
Multi-mount Bracket (Off-white)	<b>Model SZ-130</b>
Multi-mount Bracket (Off-darkgray)	<b>Model SZ-130D</b>
Multi-mount Bracket (silver)	<b>Model SZ-130S</b>
Connector with cable, cable length 2m (Omron model)	<b>SZ-120-02 (XS2F-D821-DH0-R)</b>
Connector with cable, cable length 5m (Omron model)	<b>SZ-120-05 (XS2F-D821-GH0-R)</b>
Connector with cable, cable length 10m (Omron model)	<b>SZ-120-10 (XS2F-D821-JH0-R)</b>

## Dimensions (mm)



### Installation Dimension Drawings



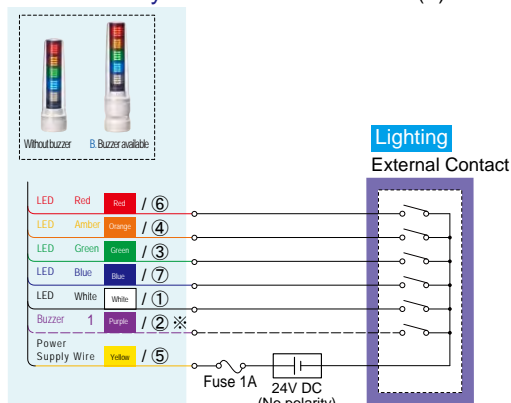
## Wiring Diagram

LS7-□□□□ (WH) (WC) (BWC) model

■ Without Lighting / Audible, B. Audible available

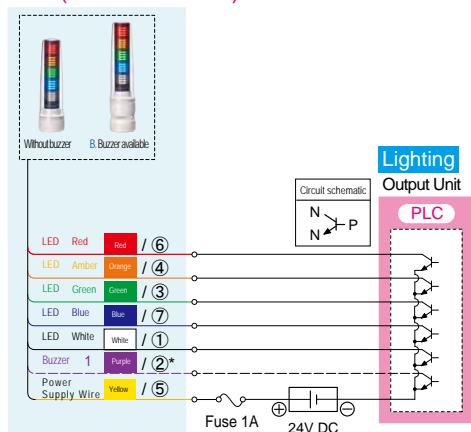
### Contact Relay

Model: LS7-502□(B)W□



\* Only products with audible available

### PLC (NPN transistor)

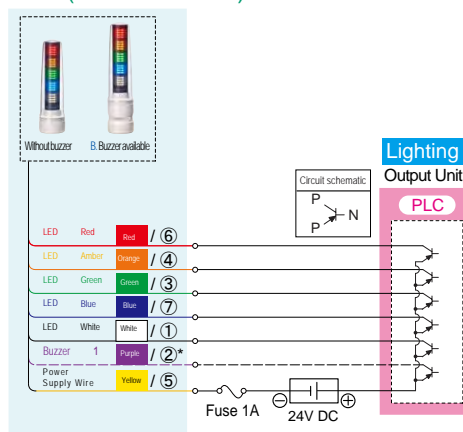


\* Only products with audible available

### Example) BWC model

	Tone	Sound pressure
Audible 1 (Purple)	Continuous Beep	70dB - 82dB

### PLC (PNP transistor)

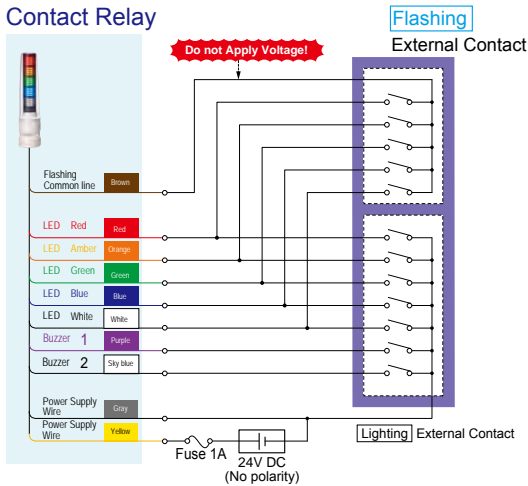


\* Only products with audible available



■ F. Lighting / Flashing. B. Audible available Model: LS7-502□FBWH

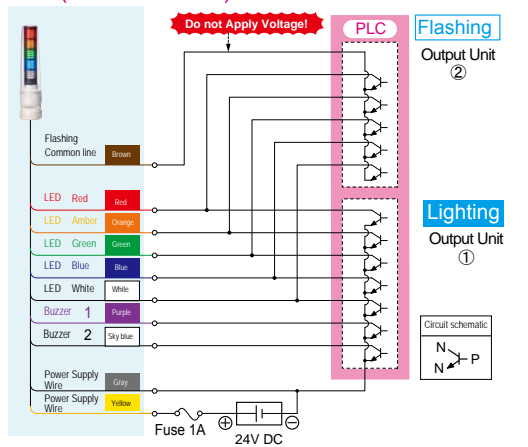
Contact Relay



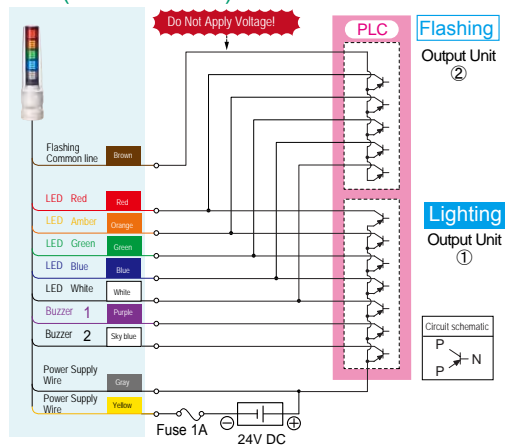
Example) FBWH model

	Tone	Sound pressure
Audible 1 (Purple)	Fast Intermittent	70dB - 82dB
Audible 2 (Sky blue)	Fast Alternating Intermittent	70dB - 85dB

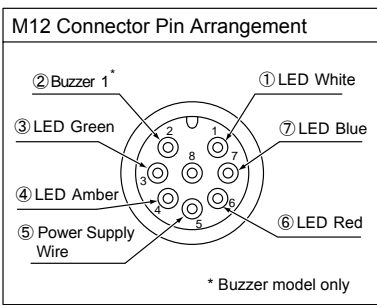
PLC (NPN transistor)



PLC (PNP transistor)



Note: To turn on the lamp and flash the lamp, you need to prepare two separate output units for turning the lamp on and for flashing the lamp.



External Contact specifications

■ Contact Relay (switch)

Rated Load Voltage	Rated Amperes	
	LED	Buzzer
24V DC	100mA or more per tier	200mA or higher

■ PLC Output Unit

Rated Load Voltage	Rated Amperes		Leakage Current
	LED	Buzzer	
24V DC	100mA or more per tier	200mA or higher	0.1mA or less

Network

Signal Tower

Signal Light

Revolving Warning Light

Cube Tower

Audibles

Hybrid Signaling Devices

LED Illumination

Options

# LGE

LGE model (Lighting)  
LGE-FB model (Lighting / Flashing / Buzzer)



(24V model only)

Colors	Red, Amber, Green, Blue, White
Globe	Polycarbonate lens with high shock resistance and heat resistance

The LGE Series features a modular design and 100mm diameter with enhanced visibility; suitable for larger machines.

- Up to 5 LED units with a built-in 85dB audible alarm
- Triple reflection lens design for enhanced visibility from multiple angles
- Direct mount or pole mount options
- No need to rewire when rearranging or adding LED units
- Open collector supported

- Standard Colors:
  - 1-Tier model / Red (-R), Amber (-Y), Green (-G)
  - 2-Tier model / Red-Amber (-RY)
  - 3-Tier model / Red-Amber-Green (-RYG)
  - 4-Tier model / Red-Amber-Green-Blue (-RYGB)

Network

Signal Tower

Signal Light

Revolving Warning Light

Cube Tower

Audibles

Hybrid Signaling Devices

LED Illumination

Options

## Specifications

Without audible				
Model	Rated Voltage	Number of tiers	Power Consumption	Mass
LGE-102	24V AC/DC	1	2.0W	0.4kg
LGE-202		2	4.0W	0.6kg
LGE-302		3	6.0W	0.8kg
LGE-402	100V AC	4	8.0W	0.9kg
LGE-110		1	5.2W	1.0kg
LGE-210		2	7.7W	1.2kg
LGE-310		3	10.2W	1.4kg
LGE-410	220 - 240V AC	4	12.7W	1.5kg
LGE-120		1	5.2W	1.0kg
LGE-220		2	7.7W	1.2kg
LGE-320		3	10.2W	1.4kg
LGE-420		4	12.7W	1.5kg

Flashing, with audible (Flashing frequency approximately 60/minute)				
Model	Rated Voltage	Number of tiers	Power Consumption	Mass
LGE-102FB	24V AC/DC	1	2.5W	0.4kg
LGE-202FB		2	4.5W	0.6kg
LGE-302FB		3	6.5W	0.8kg
LGE-402FB	100V AC	4	8.5W	0.9kg
LGE-110FB		1	5.7W	1.0kg
LGE-210FB		2	8.2W	1.2kg
LGE-310FB		3	10.7W	1.4kg
LGE-410FB	220 - 240V AC	4	13.2W	1.5kg
LGE-120FB		1	5.7W	1.0kg
LGE-220FB		2	8.2W	1.2kg
LGE-320FB		3	10.7W	1.4kg
LGE-420FB		4	13.2W	1.5kg

- The price for 1 to 3 tier models are for Red, Amber, and Green only.
- The price for 4 tier model is for Red, Amber, and Green, plus Blue and White only.
- If you want to use Blue and White instead of Red, Amber, and Green, there is an additional cost per unit.

### Replacement Parts for Changing Colors

Replacement Parts	Part Number
Red LED Unit	B32100004-1F1
Amber LED Unit	B32100004-2F1
Green LED Unit	B32100004-3F1
Blue LED Unit	B32100004-4F1
White LED Unit	B32100004-7F1

Replacement Parts	Part Number
Shaft for 1 tier	B62910028-1F1
Shaft for 2 tiers	B62910028-2F1
Shaft for 3 tiers	B62910028-3F1
Shaft for 4 tiers	B62910028-4F1

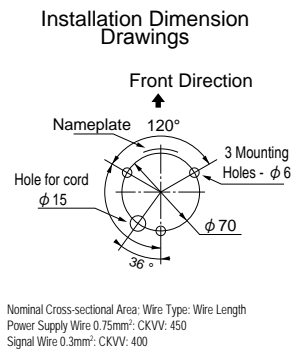
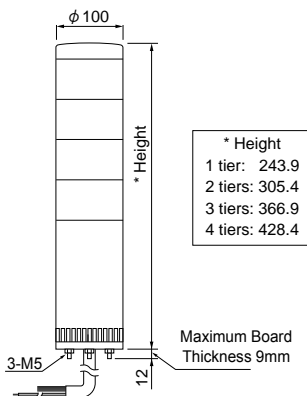
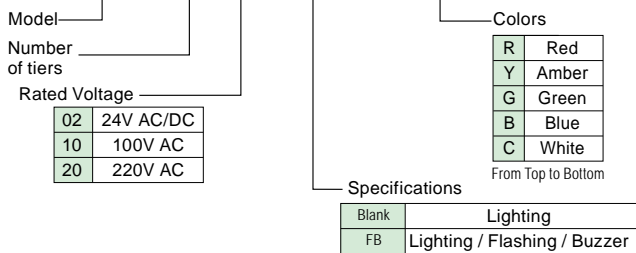
### Optional Parts

For details, see pages 182 to 187.

Optional Parts	Model
Wallmount Bracket	SZ-008
Wallmount Bracket	SZ-023

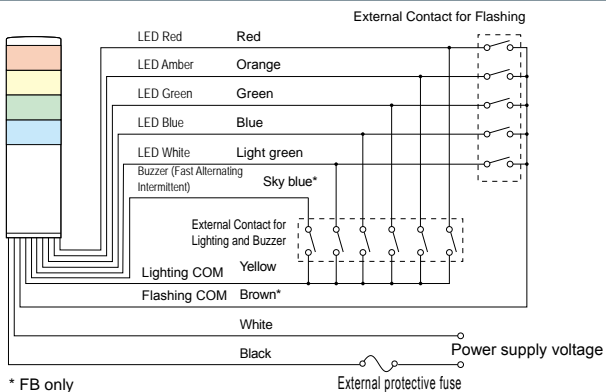
\* When using SZ-008 or SZ-023, the cord exits from the side.

# LGE-402FB-RYGB



## Wiring Diagram

[LGE-□□□(FB) model]



- For FB models, avoid simultaneous Lighting and Flashing inputs to a tier from an external contact as it may illuminate other tiers.
- Please note that the FB model requires 2 common signal lines on the PC output unit, for lighting and flashing.
- Do not connect the buzzer line to the Flashing COM. Otherwise the sound will not be intermittent and the tone quality will be poor.
- For safety, please make sure you have an external protective fuse in place.
- For Signal Light wiring, Lighting signal takes precedence over Flashing.

■ Signal Wire Voltage and Current per tier

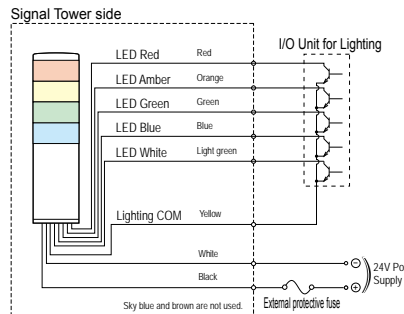
Voltage	Signal Wire Voltage	LGE model		
		LED	Buzzer	
		Signal Wire Current	Signal Wire Current	Inrush Current
24V AC/DC	24V AC/DC	90mA	20mA	250mA
100V AC	24V AC			
220V AC				

\* Set aside ample capacity for the external contact, considering the Signal Wire Current and Inrush Current.

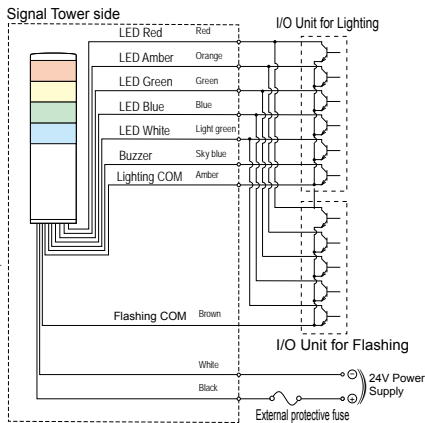
## 24V DC Example: NPN (PNP) Transistor Driver

### When controlled by NPN Transistor

• LGE model



• LGE-FB model

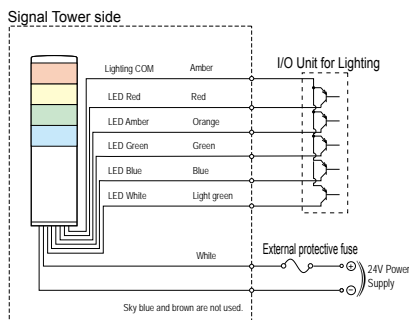


■ Internal Fuse Capacity

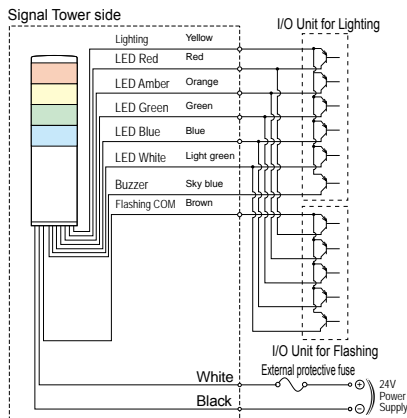
Type	LGE
Voltage	All Specifications
Model	Miniature Glass Tube Fuse
Dimensions	$\phi 5 \times 20\text{mm}$
Rated Current	1A

### When controlled by PNP Transistor

• LGE model



• LGE-FB model



■ Transistor Capacity (NPN/PNP)

Model	LGE
Current Capacity	$I_c \geq 0.1\text{A}$ (Lights) $I_c \geq 0.3\text{A}$ (Buzzer)
Withstand Voltage	$V_c \geq 35\text{V}$

# Wall-Mounted LED Signal Tower

# WEP/WE

### Light-gray body

WEP model (Lighting)  
WEP-FB model (Lighting / Flashing / Audible)

### Chrome-plated body

WE model (Lighting)  
WE-FB model (Lighting / Flashing / Audible)



**Colors** Red, Amber, Green, Blue, White

**Globe** Polycarbonate lens with high shock resistance and heat resistance

The WEP/WE Series features an ultra-slim, 37.5mm depth, half-moon profile, and 5 LED units for effective signaling without adding additional bulk to the hosting equipment.

- Clear, vertically cut lenses for wider light distribution
- Built-in audible alarm with up to 90dB (FB type)
- Can be installed vertically or horizontally
- Available in chrome plated (WE) or ivory white (WEP) body styles
- NPN/PNP compatible (24V DC ONLY)
- IP65 - dust and water resistant (IP54 for FB type)

- Standard Colors:  
3-Tier model / Red-Amber-Green (-RYG), Red-Amber-Blue (-RYB), Red-Amber-White (-RYC)  
4-Tier model / Red-Amber-Green-Blue (-RYGB), Red-Amber-Green-White (-RYGC)  
5-Tier model / Red-Amber-Green-Blue-White (-RYGBC)

\* This Uses clear globes; the globe is clear when the light is off.

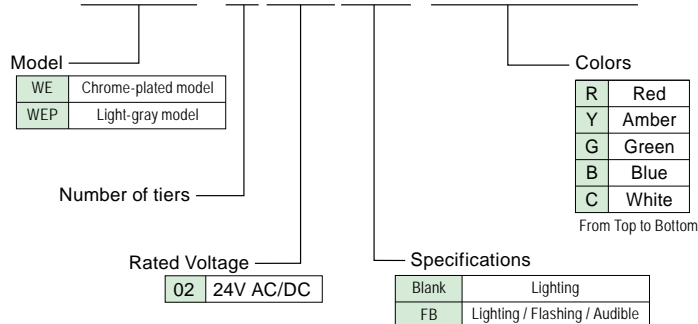
## Specifications

Without buzzer					
	Model	Rated Voltage	Number of tiers	Power Consumption	Mass
Light-gray model	WEP-302	24V AC/DC	3	1.7W	0.26kg
	WEP-402		4	2.0W	0.31kg
	WEP-502		5	2.7W	0.31kg
Chromium-plated model	WE-302	24V AC/DC	3	1.7W	0.26kg
	WE-402		4	2.0W	0.31kg
	WE-502		5	2.7W	0.31kg

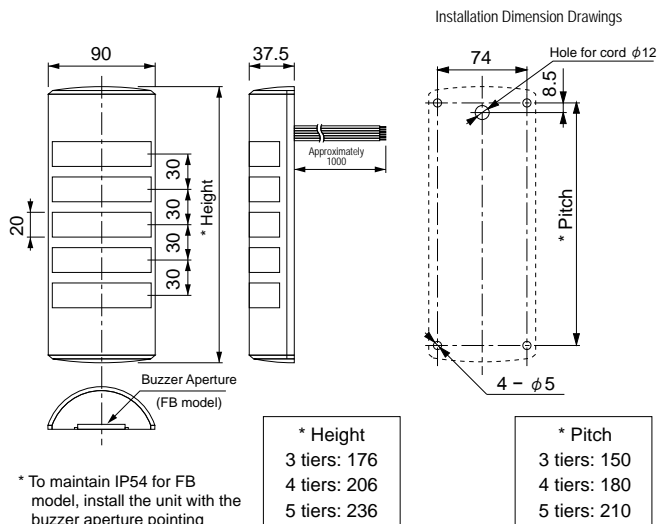
Flashing, with buzzer (Flashing frequency approximately 60/minute)					
	Model	Rated Voltage	Number of tiers	Power Consumption	Mass
Light-gray model	WEP-302FB	24V AC/DC	3	2.7W	0.30kg
	WEP-402FB		4	3.2W	0.35kg
	WEP-502FB		5	3.7W	0.35kg
Chromium-plated model	WE-302FB	24V AC/DC	3	2.7W	0.30kg
	WE-402FB		4	3.2W	0.35kg
	WE-502FB		5	3.7W	0.35kg

## Model Code

# WEP-502FB-RYGBC



## Dimensions (mm)



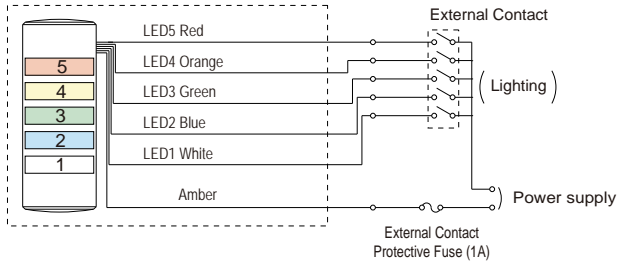
Nominal Cross-sectional Area; Wire Type:  
Wire Length  
0.3mm<sup>2</sup>: UL1007: 1000

Network  
Signal Tower  
Signal Light  
Revolving Warning Light  
Cube Tower  
Audibles  
Hybrid Signaling Devices  
LED Illumination  
Options

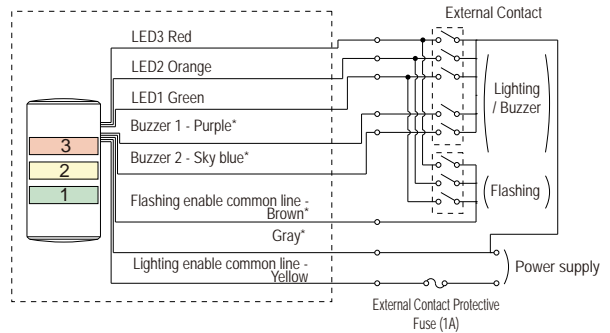
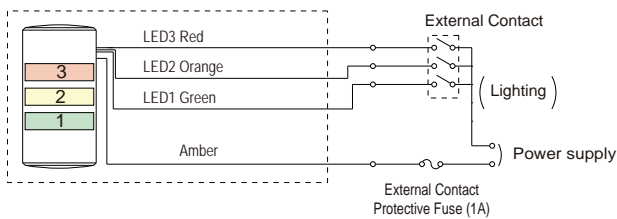
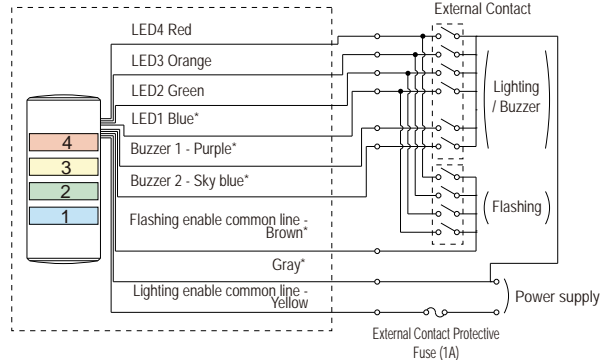
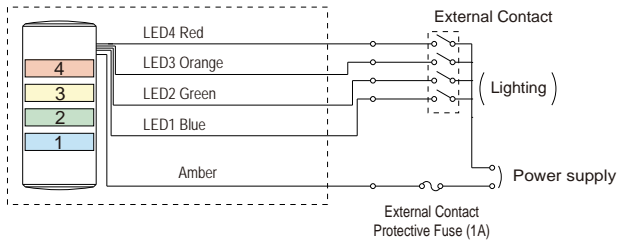
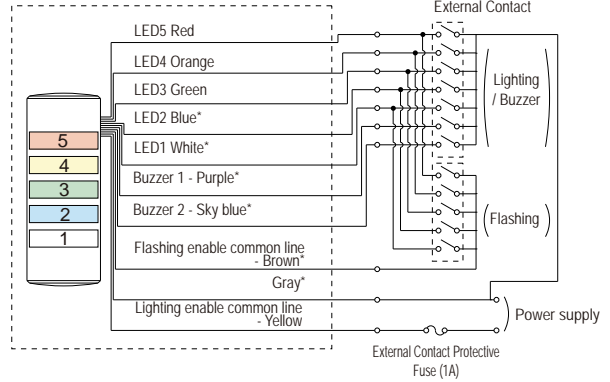
# Wiring Diagram

[WEP-□□□(FB) model] / [WE-□□□(FB) model]

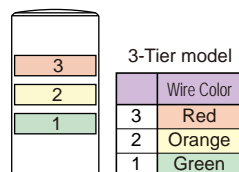
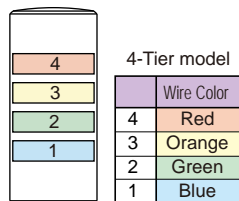
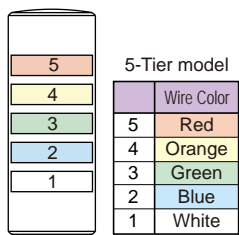
## ● Lighting type



## ● Flashing type



## ■ Signal Wire Color List



## ■ Audible

	Wire Color	Type of Sound
None	—	—
Audible 1	Purple - Signal Wire	Fast Intermittent
Audible 2	Sky blue - Signal Wire	Slow Intermittent

## ■ Signal Wire Voltage and Current per tier

Model	Voltage	Signal Wire Voltage	LED		Audible	
			Signal Wire Current	Inrush Current	Signal Wire Current	Inrush Current
WE/P/WE	24V AC/DC	24V AC/DC	24.0mA	14.3mA	40mA	250mA

\* Set aside ample capacity for the external contact, considering the Signal Wire Current and Inrush Current.

- For FB models, avoid simultaneous Lighting and Flashing inputs to a tier from an external contact as it may illuminate other tiers.
- Please note that the FB model requires 2 common signal lines on the PC output unit, for lighting and flashing.
- For safety, please make sure you have an external protective fuse in place.
- A malfunction may occur if you connect multiple units serially. Please control each unit with a separate contact.

\* For non-FB mode, there is no sky blue, purple, gray, and brown lead lines.

Network

Signal Tower

Signal Light

Revolving Warming Light

Cube Tower

Audibles

Hybrid Signaling Devices

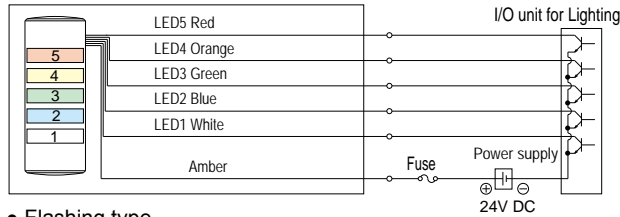
LED Illumination

Options

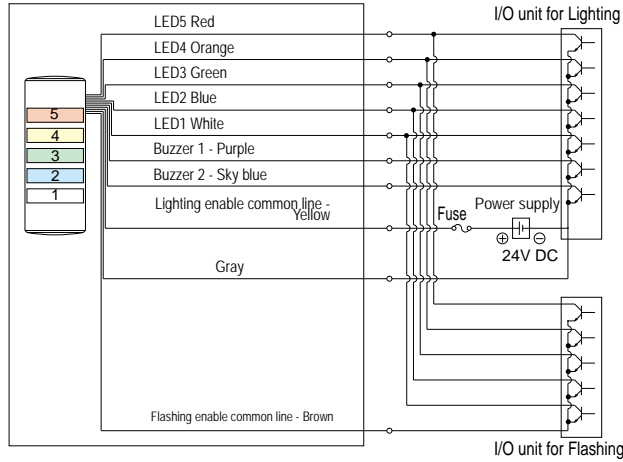


**NPN transistor**

• Lighting type

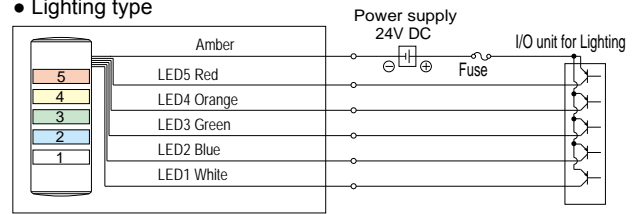


• Flashing type

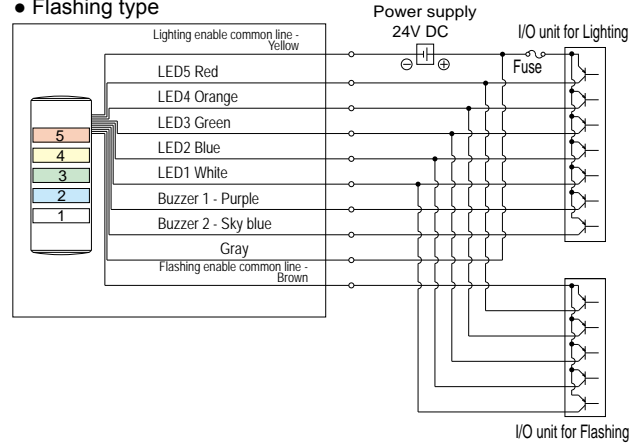


**PNP transistor**

• Lighting type



• Flashing type



Model	<b>Transistor (NPN or PNP)</b>	Withstand Voltage	$V_c \geq 35V$
Current Capacity	$I_c \geq 0.1A$ , Buzzer 300mA or more	Leakage Current	$I_L \leq 1mA$

■ External contact protective fuse

Voltage	Rated Fuse Current
All Voltages	1A

# WME-D

WME-D model, Lighting WME-DFB model (Lighting / Flashing / Buzzer)

- Standard Colors:  
 1-Tier model / Red (-R), Amber (-Y), Green (-G)  
 2-Tier model / Red-Amber (-RY)  
 3-Tier model / Red-Amber-Green (-RYG)  
 4-Tier model / Red-Amber-Green-Blue (-RYGB)  
 5-Tier model / Red-Amber-Green-Blue-White (-RYGBC)



<b>Colors</b>	Red, Amber, Green, Blue, White
<b>Globe</b>	Polycarbonate resin, high shock resistance and heat resistance

The WME Series features an 80mm diameter modular design, up to 5 ultra-bright LED units, and a 93dB audible alarm for effective signaling and enhanced durability.

- Next generation LR Series illumination and modularity technology
- Built-in audible alarm with up to 93dB
- Can be installed vertically or horizontally
- Easy to install with included metal fittings
- NPN/PNP compatible (NPN only for AC models)
- IP65 rating - dust and water resistant (IP54 for FB type)

## Specifications

Without buzzer				
Model	Rated Voltage	Number of tiers	Power Consumption	Mass
WME-102D	24V DC	1	0.9W	0.28kg
WME-202D		2	1.8W	0.37kg
WME-302D		3	2.7W	0.46kg
WME-402D		4	3.6W	0.55kg
WME-502D	100 - 240V AC	5	4.5W	0.64kg
WME-1M2D		1	1.6W	0.35kg
WME-2M2D		2	2.9W	0.44kg
WME-3M2D		3	4.2W	0.53kg
WME-4M2D		4	5.5W	0.62kg
WME-5M2D	5	6.8W	0.71kg	

Flashing, with buzzer (Flashing frequency approximately 60/minute)				
Model	Rated Voltage	Number of tiers	Power Consumption	Mass
WME-102DFB	24V DC	1	2.1W	0.28kg
WME-202DFB		2	3.0W	0.37kg
WME-302DFB		3	3.9W	0.46kg
WME-402DFB		4	4.8W	0.55kg
WME-502DFB	100 - 240V AC	5	5.7W	0.64kg
WME-1M2DFB		1	2.8W	0.35kg
WME-2M2DFB		2	4.1W	0.44kg
WME-3M2DFB		3	5.4W	0.53kg
WME-4M2DFB		4	6.7W	0.62kg
WME-5M2DFB	5	8.0W	0.71kg	

- You can order custom color combinations from one unit. Contact us for the lead time on custom orders.
- Custom orders with multiple units in the same color – Green (G), Blue (B), or White (C) – an additional cost per unit is added.

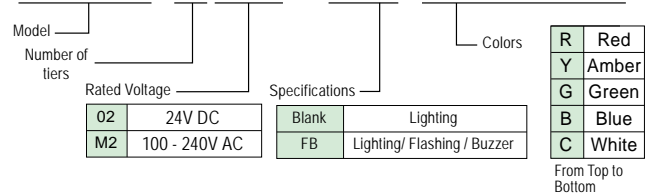
### Replacement Parts for Changing Colors

Replacement Parts	Part Number	Replacement Parts	Part Number
Red LED Unit	B72100259-1F1*	Shaft for 4 tiers	S33552120-04180F1
Amber LED Unit	B72100259-2F1*	Shaft for 5 tiers	S33552120-04220F1
Green LED Unit	B72100259-3F1*	Metal Fitting for 1 tier	B85130021-5F1
Blue LED Unit	B72100259-4F1*	Metal Fitting for 2 tiers	B85130021-4F1
White LED Unit	B72100259-7F1*	Metal Fitting for 3 tiers	B85130021-3F1
Shaft for 1 tier	S33552120-0455F1	Metal Fitting for 4 tiers	B85130021-2F1
Shaft for 2 tiers	S33552120-04100F1	Metal Fitting for 5 tiers	B85130021-1F1
Shaft for 3 tiers	S33552120-04140F1	Head Cover	B32100085-F1*

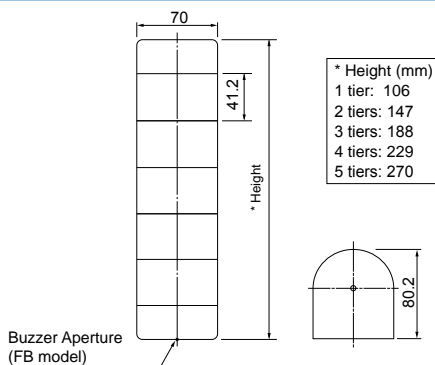
\* LED Units and head cover for WME-A Series cannot be used with this product.

### Model Code

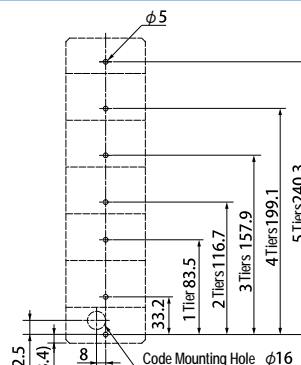
## WME-502DFB-RYGBC



## Dimensions (mm)



### Installation Dimension Drawings



	Nominal Cross-sectional Area	Wire Type	Wire Length
Power Supply Wire	0.2mm <sup>2</sup>	UL1061	1100
Signal Wire	0.2mm <sup>2</sup>	UL1061	1100

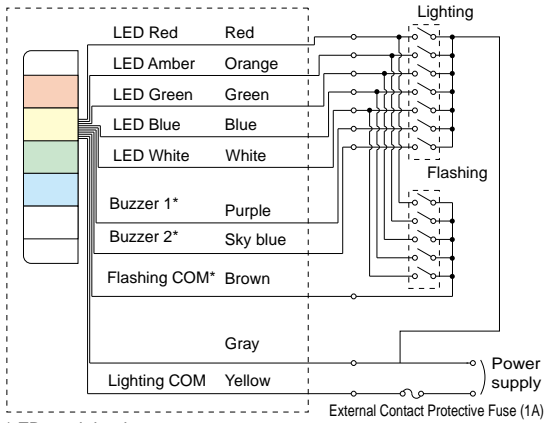
	Nominal Cross-sectional Area	Wire Type	Wire Length
Power Supply Wire	0.8mm <sup>2</sup>	UL1015	1100
Signal Wire	0.2mm <sup>2</sup>	UL1061	1100

- \* To maintain IP54 for FB model, install the unit with the buzzer aperture pointing down.
- \* A special metal fitting for each tier model is included

# Wiring Diagram

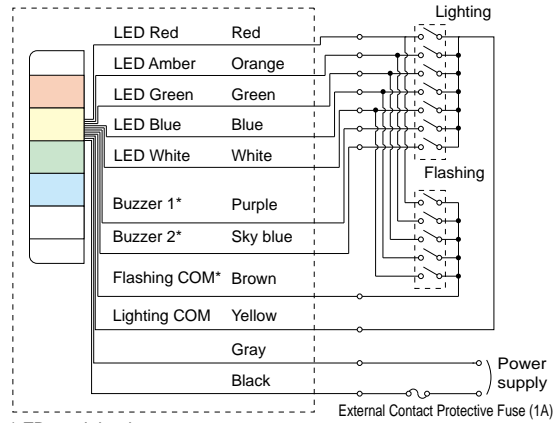
[WME-□□□□(FB) model]

## • 24V DC



\* FB model only

## • 100 - 240V AC



\* FB model only

## ■ Signal Wire Voltage and Current per tier

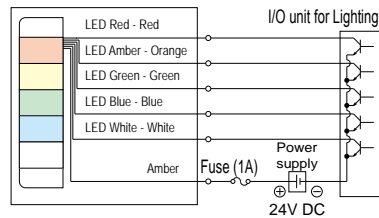
Model	Voltage	Signal Wire Voltage	LED					Audible	
			Signal Wire Current					Signal Wire Current	Inrush Current
			Red	Amber	Green	Blue	White		
WME-D	24V DC	24V DC	22 mA	26 mA	15 mA	29mA		40mA	100mA
	100 - 240V AC								None

- For FB models, avoid simultaneous Lighting and Flashing inputs to a tier from an external contact as it may illuminate other tiers.
- Please note that the FB model requires 2 common signal lines on the PC output unit, for lighting and flashing.
- For safety, please make sure you have an external contact protective fuse in place.

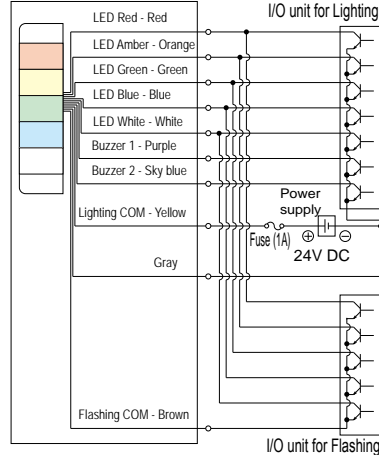
## Wiring Examples: NPN (PNP) Transistor Driver

### 24V DC, NPN type transistor

#### • Flashing model

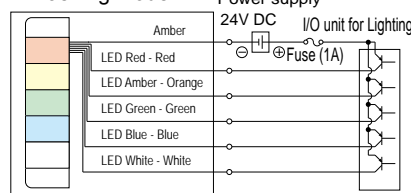


#### • Lighting / Flashing / Audible model

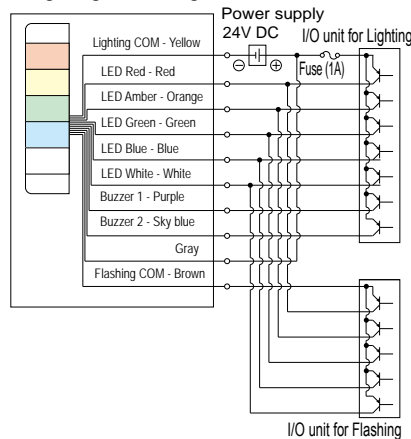


### 24V DC, PNP type transistor

#### • Flashing model

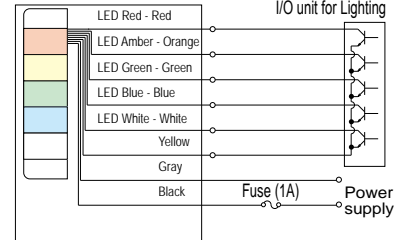


#### • Lighting / Flashing / Audible model

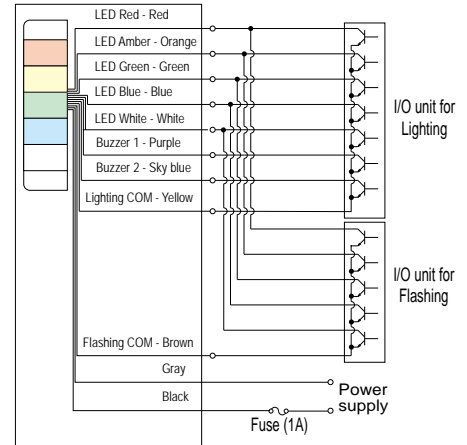


### 100 - 240V AC, NPN type transistor

#### • Flashing model



#### • Lighting / Flashing / Audible model



Model	Transistor (NPN or PNP)	Withstand Voltage	$V_c \geq 35V$
Current Capacity	$I_c \geq 100mA$ (LED Units) $I_c \geq 300mA$ (Buzzer)	Leakage Current	$I_L \leq 0.1mA$

# KUS

**Signal Units**

- KUS-EA model (LED Unit)
- KUS-S model (Incandescent Bulb Unit)
- KUS-B model (Buzzer Unit)

**Base Unit**

- KUS model (Lighting)
- KUS-F model (Lighting / Flashing)
- KUS-C model (Lighting, supports Open Collector)
- KUS-FC model (Lighting / Flashing, supports Open Collector)

**Colors** EA type: Red, Amber, Green, Blue, White. S type: Red, Amber, Green, Blue, Clear

**Globe** Polycarbonate resin, high shock resistance and heat resistance

The KUS Series features a 70mm diameter modular design, up to 4 LED or incandescent bulb units, and an optional 80dB audible alarm for effective, flexible signaling.

- Up to 4 light and audible alarm modules
- Each light module has a built-in DIP switch to toggle 'on' and 'off' for easy reconfiguration
- Maximum operating capacity of base unit is 21 watts
- Optional 80dB audible alarm module
- NPN/PNP compatible. Open collector outputs on KUS-FC, C, F models.



(When using 24V base unit 70dB)

(KUS-24F) and KUS-EA only)

## Specifications

(Flashing Rate - 60/minute)

### KUS Base Unit Specifications

Function	Model	Rated Voltage	Power Consumption
Lighting	<b>KUS-24</b>	24V AC/DC	Maximum 21W
	<b>KUS-100</b>	100V AC	
	<b>KUS-220</b>	220V AC	
Lighting / Flashing	<b>KUS-24F</b>	24V AC/DC	
	<b>KUS-100F</b>	100V AC	
	<b>KUS-220F</b>	220V AC	
Open Collector Lighting	<b>KUS-24C</b>	24V AC/DC	
	<b>KUS-100C</b>	100V AC	
	<b>KUS-220C</b>	220V AC	
Open Collector Lighting / Flashing	<b>KUS-24FC</b>	24V AC/DC	
	<b>KUS-100FC</b>	100V AC	
	<b>KUS-220FC</b>	220V AC	

\* When ordering, please specify Signal Units, Buzzer Unit, and Base Unit (Power Supply Unit).

### Signal Unit Specifications

Model	Power Consumption	Bulb	Number
<b>KUS-S (Incandescent Bulb)</b>	6W	24V 6W	19
<b>KUS-EA (LED) -R/-Y/-G</b>	R, Y: 1.2W / G, B, C: 0.9W	—	—
<b>KUS-EA(LED) -B/-C</b>			

Bulb Shape . . . Glass Bulb G14, Base BA9S

- For light bulb part number for each model, see "Light Bulb Options" at the end of this catalog.
- The base unit supplies power.

### Buzzer Unit Specifications

Model	Power Consumption	Sound Pressure
<b>KUS-B</b>	0.5W	80dB (at a distance of 1m)*

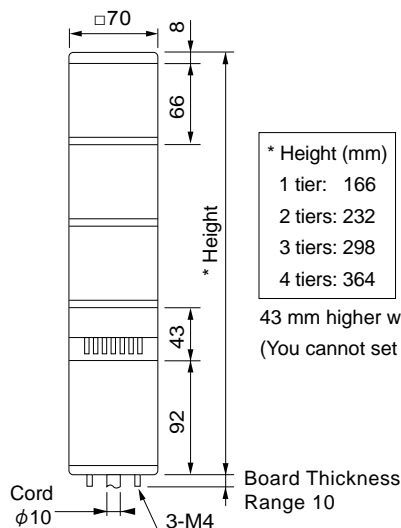
\* 70dB at a distance of 1m when using 24V AC/DC base unit

- Signal Units and Base Units are interchangeable, regardless of power supply voltage.
- The base unit supplies power.

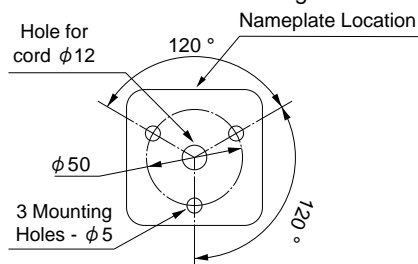
## Optional Parts

For details, see pages 182 to 187.

Optional Parts	Model
Mounting Pole	SZ-40L
Mounting Pole	SZ-40T
Wallmount Bracket	SZ-007

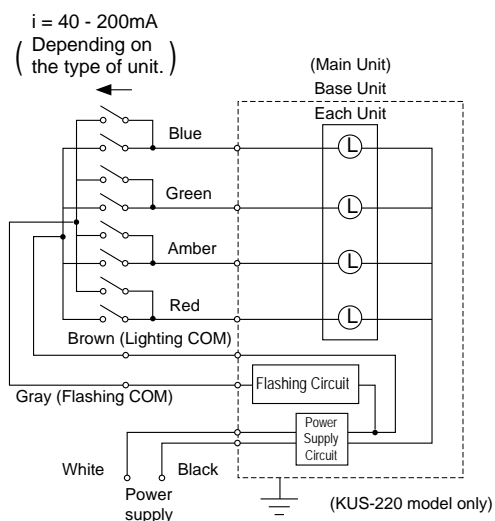


## Installation Dimension Drawings

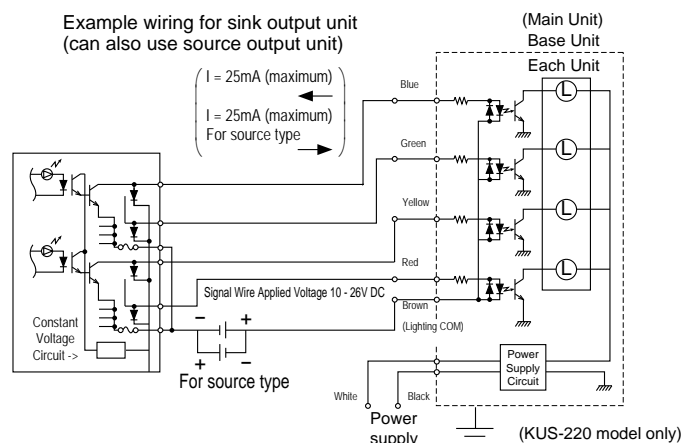


## Wiring Diagram

### Contact Input model Base Unit (KUS, KUS-F)



### Open Collector supported Base Unit (KUS-FC, C)



- \* For Open Collector enabled models, apply voltage externally between COM on the Main Unit and PLC. (Voltage Range 10 - 26V DC)
- \* If you use transistors or non-voltage contacts for signal wires, use the following capacity when wiring.

### Transistor Capacity (Recommended) (NPN/PNP)

Model	NPN (2SC, 2SD)	PNP (2SA, 2SB)
Current Capacity	$I_c > 50\text{mA}$	
Withstand Voltage	$V_c > 45\text{V}$	

Nominal Cross-sectional Area: Wire Type: Wire Length

KUS-24 model: Power Supply Wire AWG20: UL1007: 400mm  
KUS-100/220 model : Power Supply Wire 0.75mm<sup>2</sup>: VSF: 400mm

- \* Use contact relay (Withstand voltage: 45V or more, Current Capacity: 1A or more) for external contact.
- \* Turn the power off before changing the order or adding units
- For Signal Light wiring, Lighting signal takes precedence over Flashing.