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SPECIFICATIONS

Product Name: Signal Tower

Model: LR5-□01□□□W

PATLITE Corporation

SPECIFICATIONS

1. General Specifications

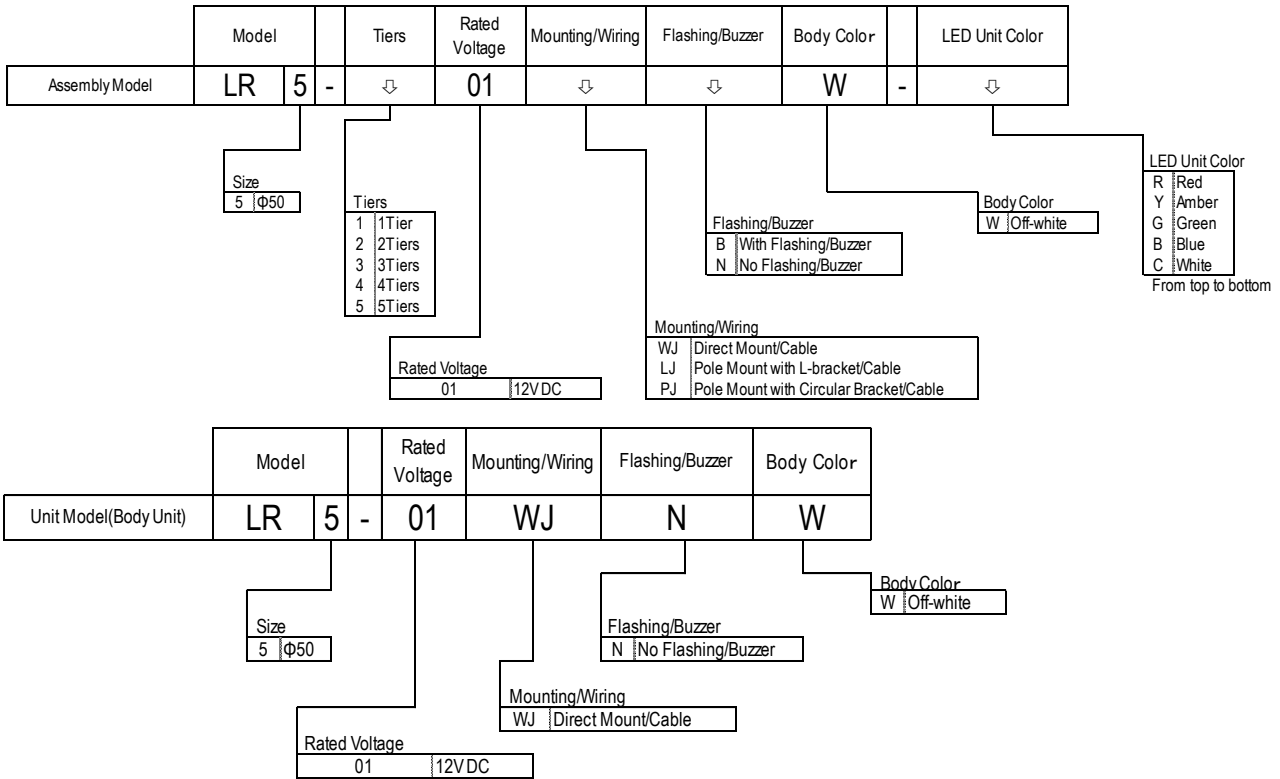
Model		LR5-□□□□□W
Rated Voltage		12V DC
Operating Voltage Range		Rated Voltage ±10%
Signal Wire Current (Per Unit)	Typ.	LED Unit : 90mA Buzzer Unit : 90mA (※1)
	Max.	LED Unit : 100mA Buzzer Unit : 250mA (※1)
Inrush Current	Power Supply Wire	0.7A / Less than 15ms
	Signal Wire	LED Unit : none (※2) Buzzer Unit : none (Not exceeding Maximum Signal Wire Current Ratings) (※2)
Rated Power Consumption (Per Unit)	Typ.	LED Unit : 1W Buzzer Unit : 1.1W (※1)
	Max.	LED Unit : 1.1W Buzzer Unit : 1.2W (※1)
Standby Power Consumption		LED Unit : none Buzzer Unit : 0.3W Body Unit : 0.1W
Operating Ambient Temperature		-20°C ~ +50°C
Operating Ambient Humidity		Less than 90% RH (No Condensation)
Storage Ambient Temperature		-30°C ~ +60°C
Storage Ambient Humidity		Less than 90% RH (No Condensation)
Mounting Location		Indoor Only
Mounting Direction		Upright
Protection Rating		IP65(IEC 60529)(※3) / NEMA TYPE 4X,13
Environmental Condition		Upright
Insulation Resistance		More than 1MΩ at 500VDC between live part and non-current carrying metallic part
Withstand Voltage		500VAC applied for 1min Between live part and non-current carrying metallic part without breaking insulation
Flashing Rate		60±2 Flashes Per Minute
Buzzer Sound /Typical Frequency	No.1	Rapid intermittent beep / 3378Hz
	No.2	Continuous beep sound / 3378Hz
	No.3	Rapid Hi-Lo / 2016Hz&3012Hz
	No.4	Sweep sound / 1000Hz-4032Hz
Setting		Depending on DIP Switch Settings Refer to the 6.Buzzer Pattern Set-up
Outer Dimensions		Refer to the 3.Outer Dimensions
Conformity Standards		UL 508, CSA-C22.2 No. 14 EMC Directive (EN 61000-6-4, EN 61000-6-2) RoHS Directive (EN IEC 63000) FCC Part 15 Subpart B Class A KC (KN 61000-6-4, KN 61000-6-2)
Remarks		(※1)Environmental Condition : Buzzer sound No.2 Continuous beep sound (※2)When (Gray) power supply wire is not connected, inrush current of 0.7A will flow through the signal wires. (※3)LJ Type IP54 Due to the characteristics of the LED elements, a variation in difference of the color tone and brightness of every product may occur UL Recognized Component (File No.E215660)

LR-501-W18E-2_10

Mass (Tolerance±10%)	(LED Unit) + [Buzzer Unit]	
	WJ	0.2kg + (0.04kg)×Tiers + [0.05kg]
	LJ	0.49kg + (0.04kg)×Tiers + [0.05kg]
	PJ	0.38kg + (0.04kg)×Tiers + [0.05kg]
Sound Pressure Level	Typ.80dB	Sound Reduction Approx. -10dB Depending on DIP Switch Settings Refer to the 6.Buzzer Pattern Set-up
Environmental Condition	Buzzer sound No.4 was measured from the total circumference of the Buzzer Unit at 1m	

2. Model

2.1.1 Model Number Configuration



2.1.2 Model Number Example

Assembly Model	LR5-301WJNW-RYG ● Φ50 ● LED Unit 3Tiers ● 12VDC ● Direct Mount/Cable ● No Flashing/Buzzer ● Off-white ● (From top to bottom) Red · Amber · Green
	LR5-501PJBW-RYGB ● Φ50 ● LED Unit 5 Tiers ● 12VDC ● Pole Mount with Circular Bracket/Cable ● With Flashing/Buzzer ● Off-white ● (From top to bottom) Red · Amber · Green · Blue · White
Unit Model (Body Unit)	LR5-01WJNW ● Φ50 ● 12VDC ● Direct Mount/Cable ● No Flashing/Buzzer ● Off-white

2.2. UL Registered Model

LR5	LR5-_01WJB , LR5-_01WJN , LR5-_01LJB , LR5-_01LJN , LR5-_01PJB , LR5-_01PJN
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3.Outer Dimensions

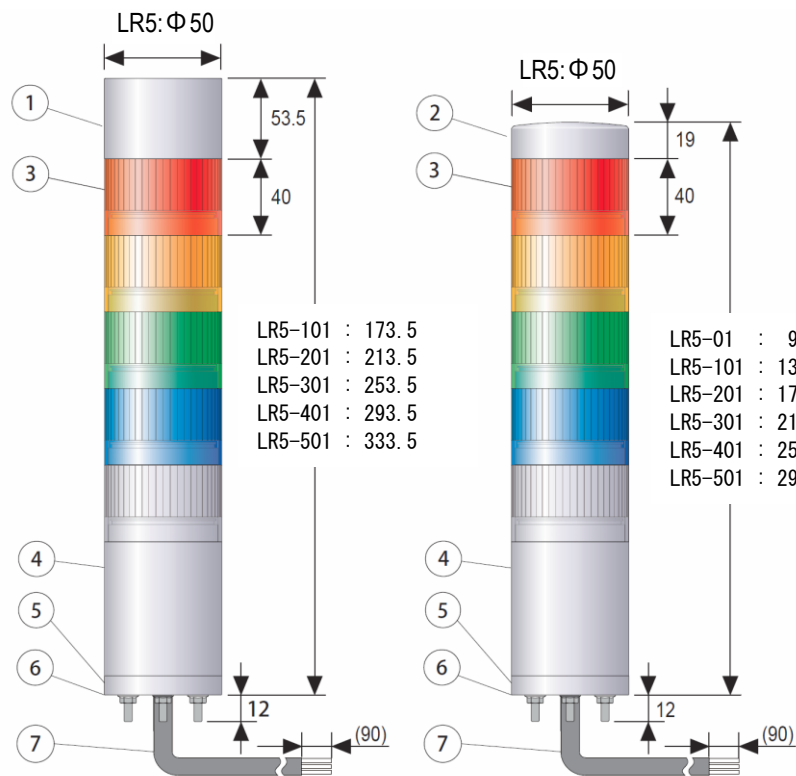
3.1 LR5-□01WJ□W

■ **WJ** Direct Mount with Cable

LR5-□01WJBW

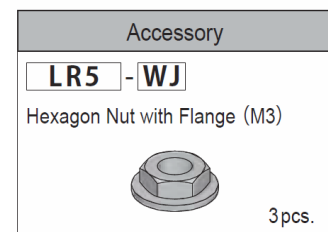
LR5-□01WJNW

(Unit:mm)



- Maximum Board Thickness : 7
- Cable : UL2464 ($\Phi 7.5$)
 Signal Wire & Power Supply Wire : AWG24
 Cable Length : (1300)

Number	Name	Material	UL Flammability
1	Buzzer Case	PC	V-2
2	Head Cover	PC	V-2
3	Globe	PC	V-2
4	Body	PC	V-2
5	Direct Mount Bracket	PC	V-2
6	Waterproof Packing	Silicone Rubber	-
7	Cable	PVC	VW-1



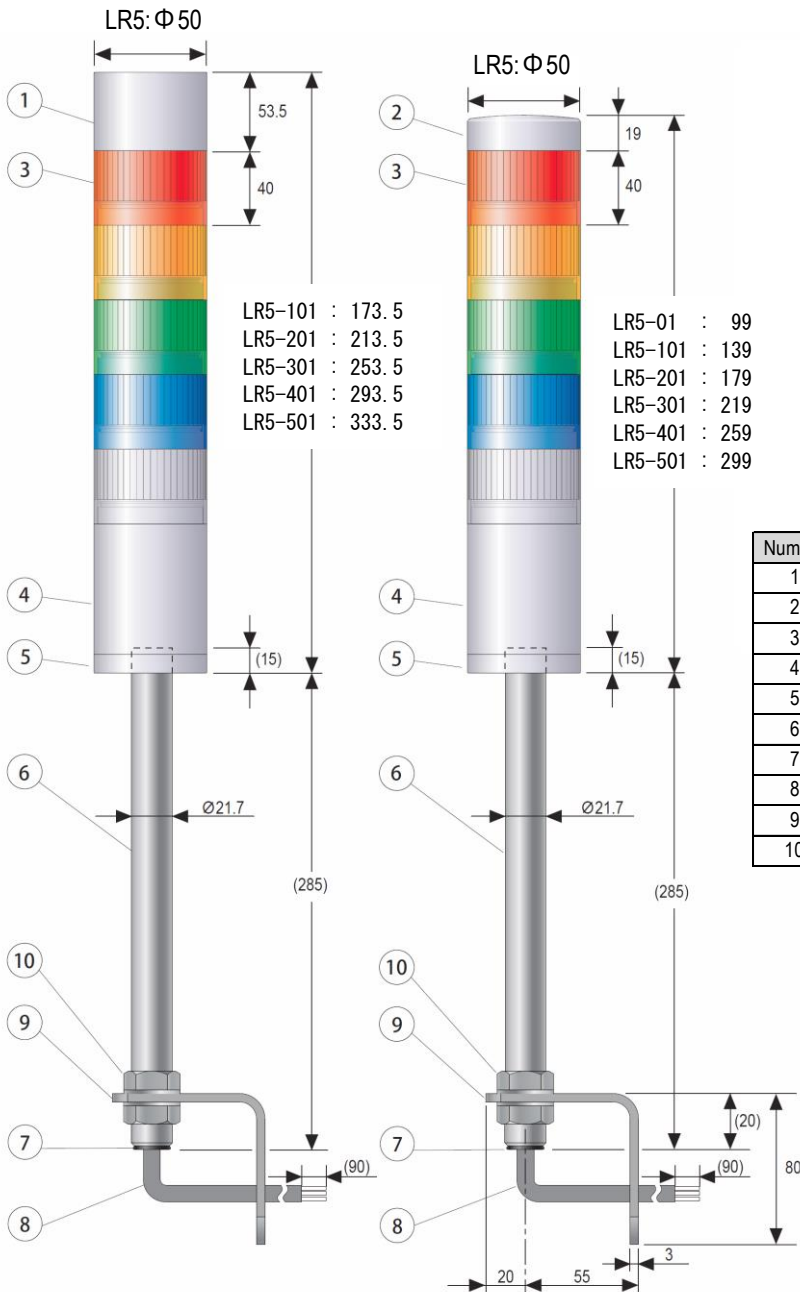
3.2 LR5-□01LJ□W

■ **LJ** L-bracket and Pole with Cable

LR5-□01LJBW

LR5-□01LJNW

(Unit:mm)



- LR5-101 : 173.5
- LR5-201 : 213.5
- LR5-301 : 253.5
- LR5-401 : 293.5
- LR5-501 : 333.5

- LR5-01 : 99
- LR5-101 : 139
- LR5-201 : 179
- LR5-301 : 219
- LR5-401 : 259
- LR5-501 : 299

Number	Name	Material	UL Flammability
1	Buzzer Case	PC	V-2
2	Head Cover	PC	V-2
3	Globe	PC	V-2
4	Body	PC	V-2
5	Pole Bracket	PC	V-2
6	Pole	AL	-
7	Rubber Bushing	EPR	-
8	Cable	PVC	VW-1
9	L-bracket	Steel	-
10	Hexagon Nut M22	SUM	-

• Cable : UL2464 (Φ7.5)
 Signal Wire & Power Supply Wire : AWG24
 Cable Length : (1000)

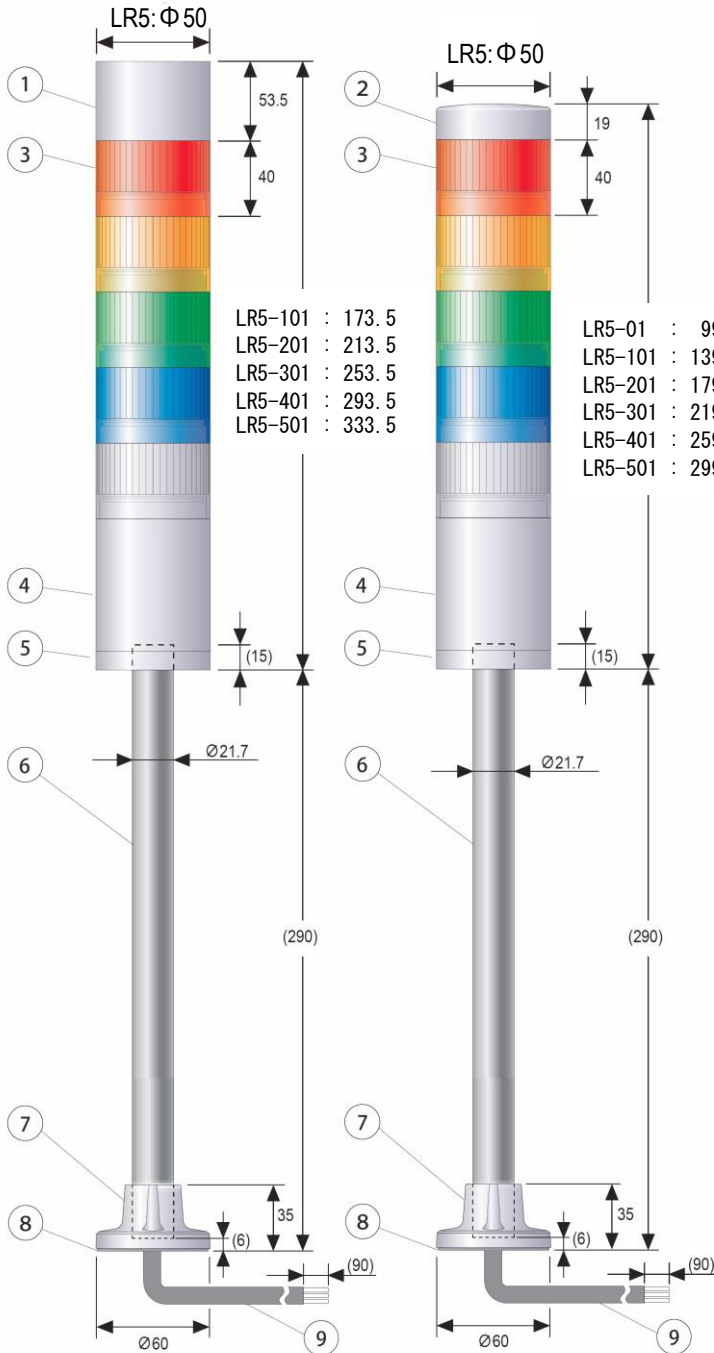
3.3 LR5-□01PJ□W

■ **PJ** Circular Bracket and Pole Mount with Cable

LR5-□01PJBW

LR5-□01PJNW

(Unit:mm)




Number	Name	Material	UL Flammability
1	Buzzer Case	PC	V-2
2	Head Cover	PC	V-2
3	Globe	PC	V-2
4	Body	PC	V-2
5	Pole Bracket	PC	V-2
6	Pole	AL	-
7	Circular Bracket	PC	5VA
8	Waterproof Packing	Silicone Rubber	-
9	Cable	PVC	VW-1

Accessory


LR5 - PJ

Cross Recessed Pan Head Screw (M4x20)



3pcs.

Hexagon Nut with Flange (M4)

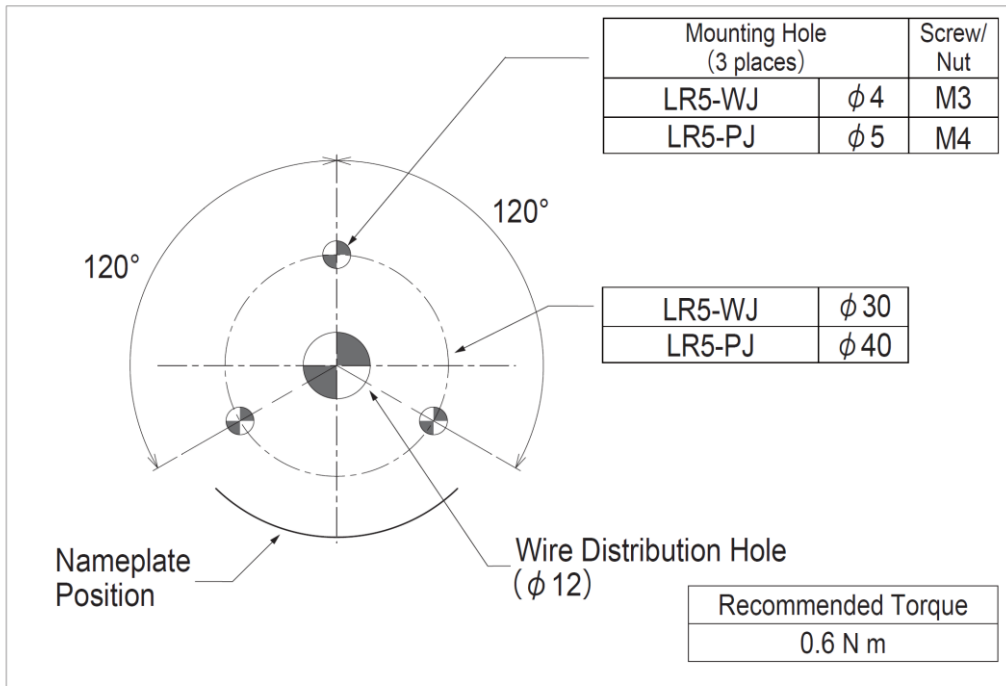


3pcs.

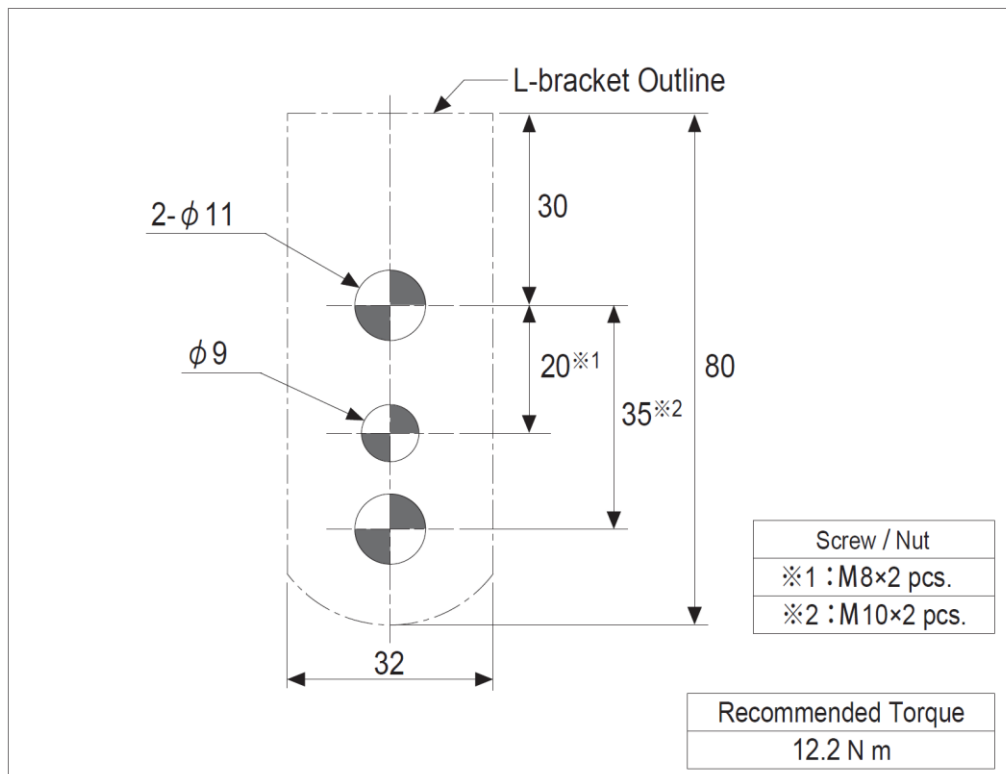
• Cable : UL2464 ($\Phi 7.5$)
 Signal Wire & Power Supply Wire : AWG24
 Cable Length : (1000)

4. Mounting Dimensional Drawing

4.1 [WJ] - [PJ] Mounting Dimensional Drawing (Unit: mm)

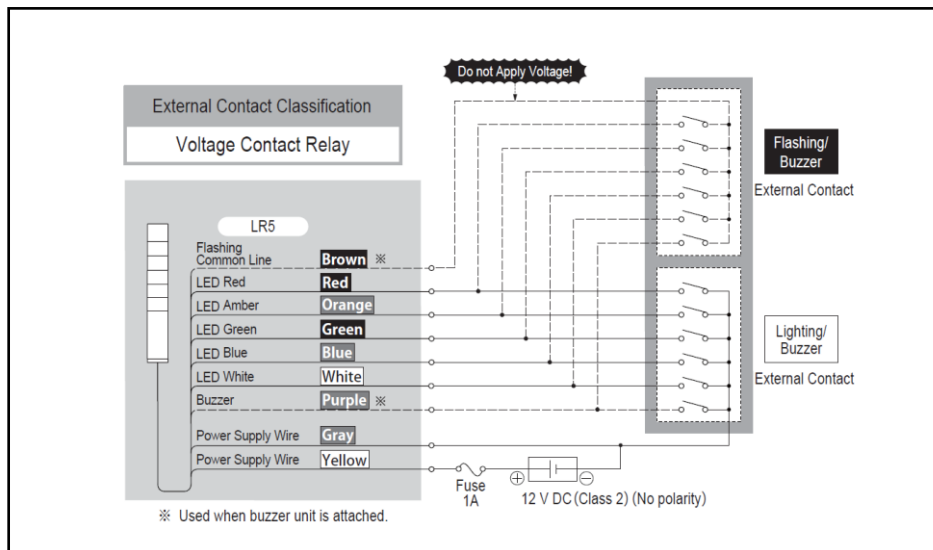
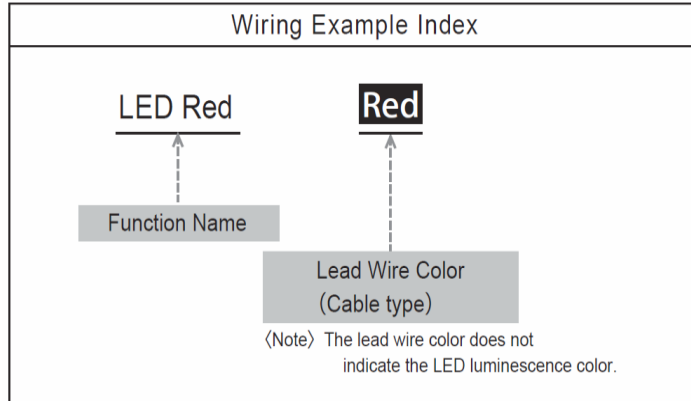


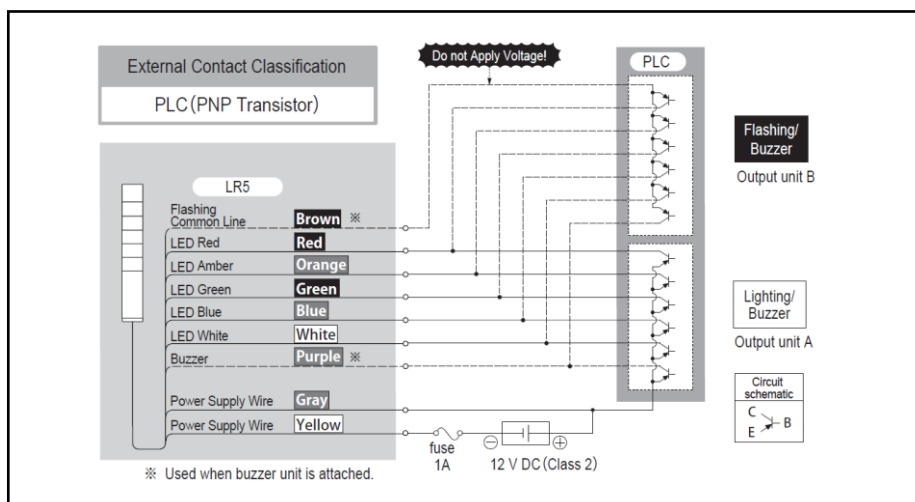
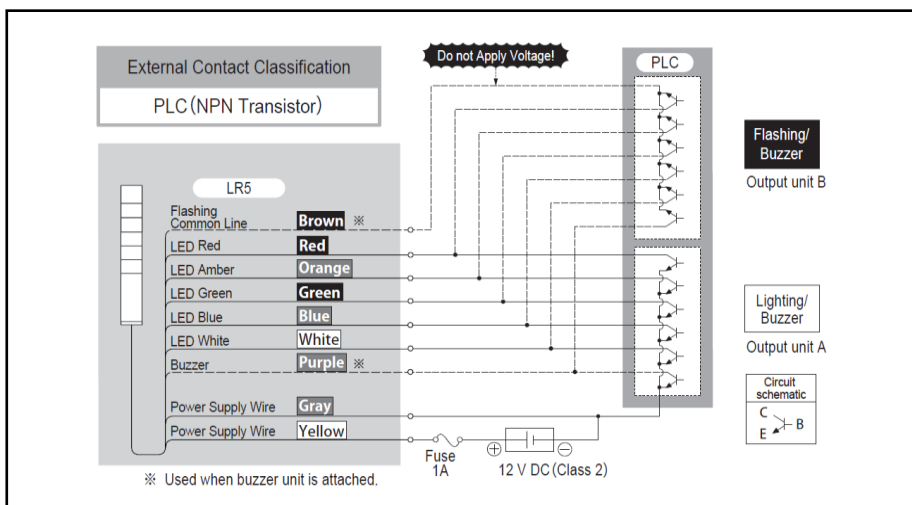
4.2 [LJ] Mounting Dimensional Drawing (Unit: mm)



5.Wiring Diagram

5.1 Wiring Example





5.2 External Contact Capacity

I_s : Current Capacity V_s : Withstand Voltage I_L : Leakage Current

	Recommended contact capacity
LED Unit (1 Tier)	$I_s \geq 100\text{mA}$ $V_s \geq 20\text{VDC}$ (※1)
Buzzer	$I_s \geq 300\text{mA}$ $V_s \geq 20\text{VDC}$ (※1)
Power Supply	$I_s \geq 700\text{mA}$ $V_s \geq 20\text{VDC}$
Leakage Current	$I_L \leq 0.1\text{mA}$

※1 ... When (**Gray**) power supply wire is not connected, inrush current of 0.7A will flow through the signal wire.

Be sure to select the appropriate ratings for an external contact.

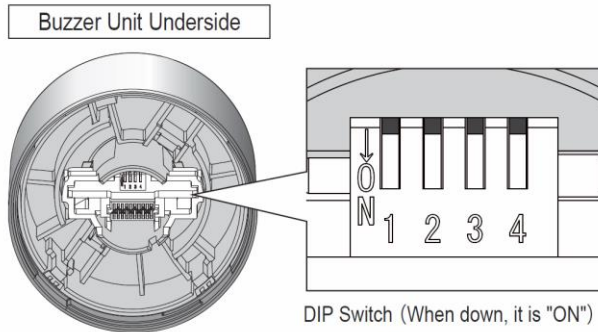
■ Recommended Fuse

Fuse Rated Current	250 V / 1 A (5x20mm Fast-Acting Glass Body Cartridge Fuse)
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6. Buzzer Pattern Set-up

The **B** Flashing/Buzzer type includes a set up for four different patterns and sound reduction.

Set up the preferred pattern, using the DIP Switch after removing the buzzer unit.



DIP Switch (When down, it is "ON")
Switch is shown by ■.

■ Setup Table

Buzzer Sound	DIP Switch		Sound Pattern
	1	2	
No.1	OFF	OFF	Rapid Intermittent Beep
No.2	ON	OFF	Continuous Beep Sound
No.3	OFF	ON	Rapid Hi-Lo
No.4	ON	ON	Sweep Sound

DIP Switch		Volume
3		
OFF	OFF	Normal
ON	ON	Sound Reduction

〈Note〉 Do not use DIP Switch 4.
It is set to "OFF" at all times after factory shipments.