

SPECIFICATIONS

[1.General Specifications]

Product Name		Signal Tower		
Model		LR10-□02□□W	LR10-□M2WJ□W	
Rated Voltage		24V DC	100-240V AC (50/60Hz)	
Operating Voltage Range		21.6-26.4V DC	90-250V AC	
Rated Power Consumption (Per Unit)	Typ.	LED Unit : 1.4W(※1)	LED Unit : 1.6W(※1)	
		Buzzer Unit : 1.7W(※2)	Buzzer Unit : 2.0W(※2)	
		Body Unit : 0.4W(※3)	Body Unit : 0.7W(※3)	
	Max.	LED Unit : 1.6W(※1)	LED Unit : 2.0W(※1)	
		Buzzer Unit : 2.0W(※2)	Buzzer Unit : 2.3W(※2)	
		Body Unit : 0.4W(※3)	Body Unit : 0.8W(※3)	
Inrush Current		None	Less than 50A/2ms	
Standby Power Consumption	LED Unit : 0.2W		LED Unit : 0.3W	
	Buzzer Unit : 0.2W		Buzzer Unit : 0.4W	
	Body Unit : 0.2W		Body Unit : 0.7W	
Operating Ambient Temperature		-20°C to +50°C		
Operating Ambient Humidity		Less than 90 % (No condensation)		
Storage Ambient Temperature		-30°C to +60°C		
Storage Ambient Humidity		Less than 90 % (No condensation)		
Mounting Location		Indoor / Outdoor *TYPE 4X indoor use only. (UL50E)		
Mounting Direction		Upright / Inverted		
Protection Rating		IP6X,IPX6(IEC 60529),IPX9K(ISO 20653)/TYPE 4X,13(NEMA, UL50E)		
Environmental		Upright		
Insulation Resistance		More than 1MΩ at 500VDC between live part and non-current carrying metallic part	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	1500VAC applied for 1min between live part and non-current carrying metallic part without breaking insulation	
Buzzer Sound / Typical Frequency	No.1	Rapid Intermittent Beep/2,941Hz	No.2	Continuous Beep Sound/2,941Hz
	No.3	Rapid Hi-Low/2,000Hz&3,012Hz	No.4	Sweep Sound/1,000Hz-4,032Hz
Setting		Depending on DIP Switch Settings. Refer to the 6.Buzzer Pattern Set-up		
Sound Pressure Level(Typ.)		92dB		
Environmental Condition		Buzzer sound No.4 was measured from the total circumference of the Buzzer Unit at 1m		
Flash Pattern		Continuous / Blinking, Rotating, Triple-Flash, Dimmed continuous / Dimmed Blinking		
Setting		Refer to the 5.2 Flash Pattern Setting		
Rotation Flashing Rate(Typ.)		120rpm ± 15% (102-138rpm)		
Flashing Rate(Typ.)		Blinking/Dimmed Blinking : 60 Flashes Per Minute, Triple-Flash : 120 Flashes Per Minute		
Outer Dimensions		Refer to the 3.Mounting Dimensional Drawing		
Conformity Standards	UL	UL508, CSA-C22.2 No.14 (File No.E215660)		
	CE Marking UKCA Marking	EN61000-6-4, EN61000-6-2, EN IEC 63000	EN61000-6-4, EN61000-6-2, EN IEC 63000, EN60947-5-1,EN62471	
	KC	KS C 9610-6-4, KS C 9610-6-2		
	FCC	FCC Part15 SubpartB ClassA		
	IC	ICES-003 Class A		

Mass (Tolerance ±10%)	Assembly model WJ	Tiers	LR10-□02WJNW	LR10-□02WJBW	LR10-□M2WJNW	LR10-□M2WJBW
		1	0.83kg	0.89kg	0.85kg	0.91kg
		2	1.01kg	1.07kg	1.04kg	1.10kg
		3	1.20kg	1.26kg	1.22kg	1.28kg
		4	1.38kg	1.44kg	1.41kg	1.47kg
		5	1.57kg	1.63kg	1.59kg	1.65kg
	Unit Model WJ	0.64kg		0.66kg		
Assembly model WM	Tiers	LR10-□02WMNW				
	3	1.15kg				
	Unit Model WM	0.59kg				
Remarks	<p>Due to the characteristics of the LED elements, there may be a slight variation in color tone and brightness between products.</p> <p>※1 Environmental Condition:Flash Pattern "Continuous"</p> <p>※2 Environmental Condition:Buzzer Sound "No.4 Sweep Sound"</p> <p>※3 Environmental Condition:Signal Wire × 8 - Common are short-circuited.</p>					

[2.Model Number Configuration]

<Assembly Model>

LR10 - 3 02 WJ NW - RYG

■ Tiers

- 1 : 1Tier
- 2 : 2Tiers
- 3 : 3Tiers
- 4 : 4Tiers
- 5 : 5Tiers

■ Rated Voltage

- 02 : 24V DC
- M2 : 100-240V AC

■ Buzzer

- B : With Buzzer
- N : No Buzzer

■ Body Color

- w : Off-white

■ LED Unit Color

- R : Red
- Y : Amber
- G : Green
- B : Blue
- C : White

From top to bottom

■ Mounting/Wiring

- WJ : Direct Mount/Cabtyre Cord
- WM : Direct Mount/M12 Connector (Only 02 type)

<Unit Model(Body Unit)>

LR10 - 02 WJ NW

■ Rated Voltage

- 02 : 24V DC
- M2 : 100-240V AC

■ Buzzer

- N : No Buzzer

■ Body Color

- w : Off-white

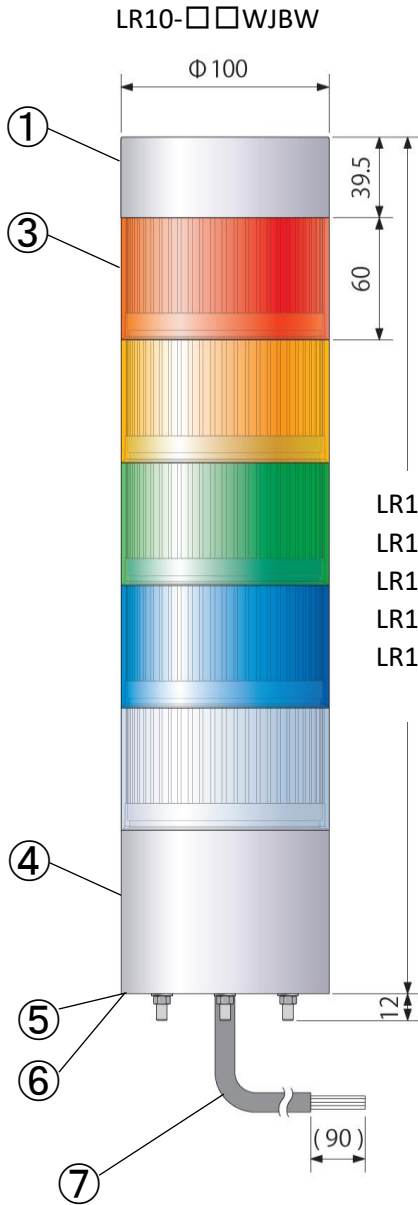
■ Mounting/Wiring

- WJ : Direct Mount/Cabtyre Cord
- WM : Direct Mount/M12 Connector (Only 02 type)

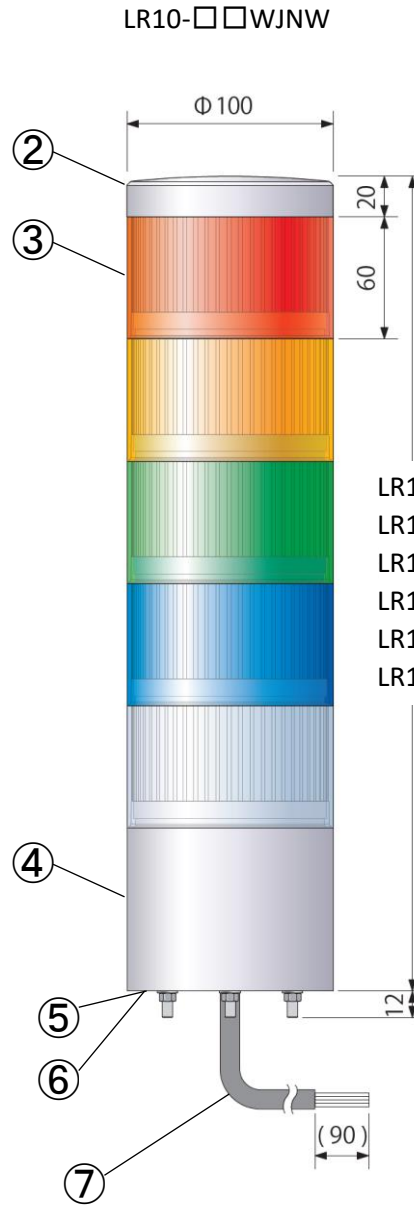
[3.Outer Dimensions]

WJ Direct Mount with Cabtyre Cord

(Unit:mm)





- LR10-1□ : 179.5
- LR10-2□ : 239.5
- LR10-3□ : 299.5
- LR10-4□ : 359.5
- LR10-5□ : 419.5



- LR10-02 / M2 : 100
- LR10-1□ : 160
- LR10-2□ : 220
- LR10-3□ : 280
- LR10-4□ : 340
- LR10-5□ : 400

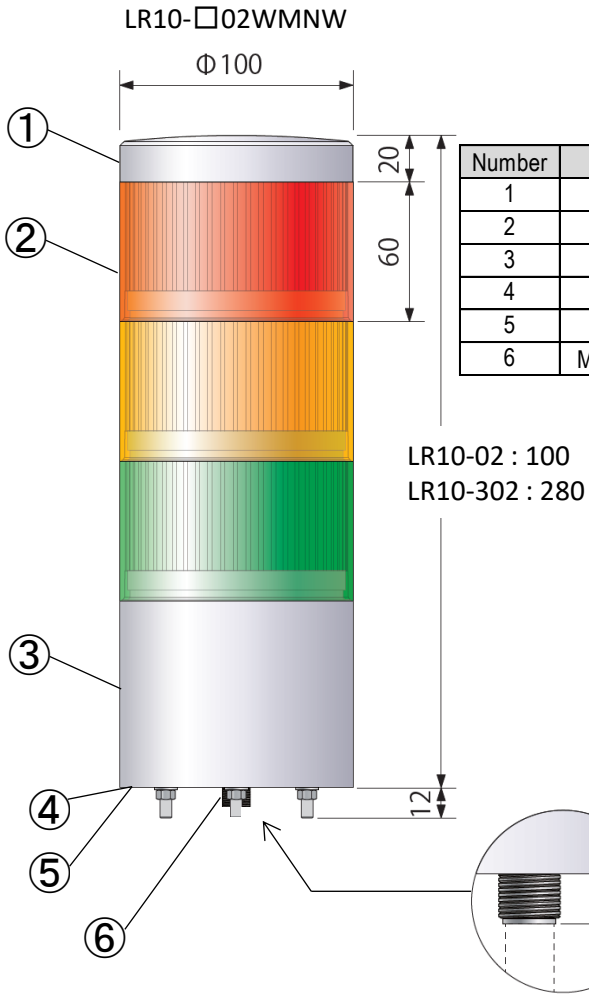
- Maximum Board Thickness : 6
- Cabtyre Cord
Wire Diameter : (ø8.5)
Power Supply Wire : AWG18
Signal Wire : AWG24
Cord Length : (500)

Accessory	
Plain Washer(M5) SUS	Nut(M5) SUS
	
3 pcs.	3 pcs.


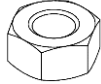
Number	Name	Material	UL Flammability
1	Buzzer Case	PC	V-0
2	Head Cover	PC	V-0
3	Globe	PC	V-2
4	Body	PC	5VA
5	Mount	PC	HB
6	Mounting Gasket	Silicone Rubber	-
7	Cabtyre Cord	PVC	VW-1

WM Direct Mount/M12 Connector

(Unit:mm)

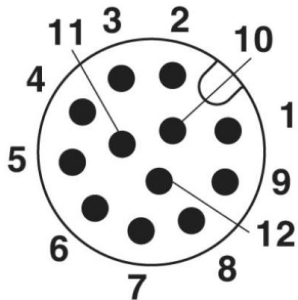


Number	Name	Material	UL Flammability
1	Head Cover	PC	V-0
2	Globe	PC	V-2
3	Body	PC	5VA
4	Mount	PC	HB
5	Mounting Gasket	Silicone Rubber	-
6	M12 Connector (12pin male)	Nickel Plating	-

Accessory	
Plain Washer(M5) SUS	Nut(M5) SUS
	
3 pcs.	3 pcs.

• Maximum Board Thickness : 6

M12 Connector Pin Configuration

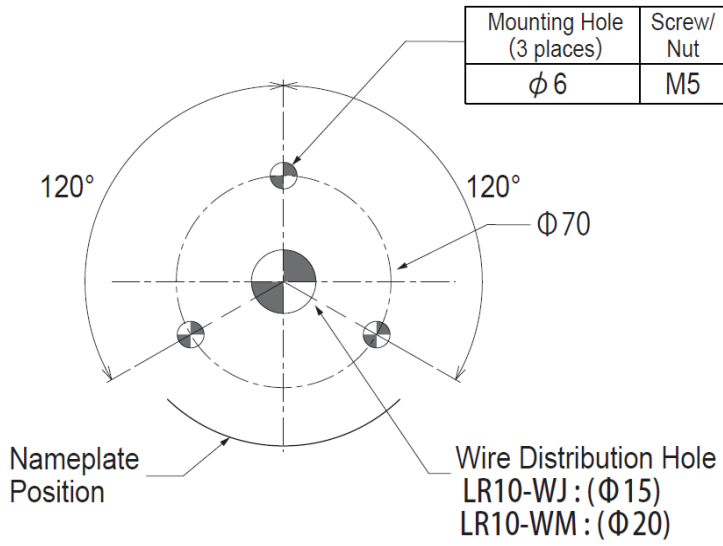


Pin No.	Function Name
1	Blinking Common
2	LED B
3	LED C
4	LED G
5	Common
6	LED Y
7	Power Supply
8	Power Supply
9	LED R
10	Buzzer
11	Pattern1
12	Pattern2

Drawing No.	Rev.	Page
LR10-502WJNW-W18	C	5/9

[4. Mounting Diagram]

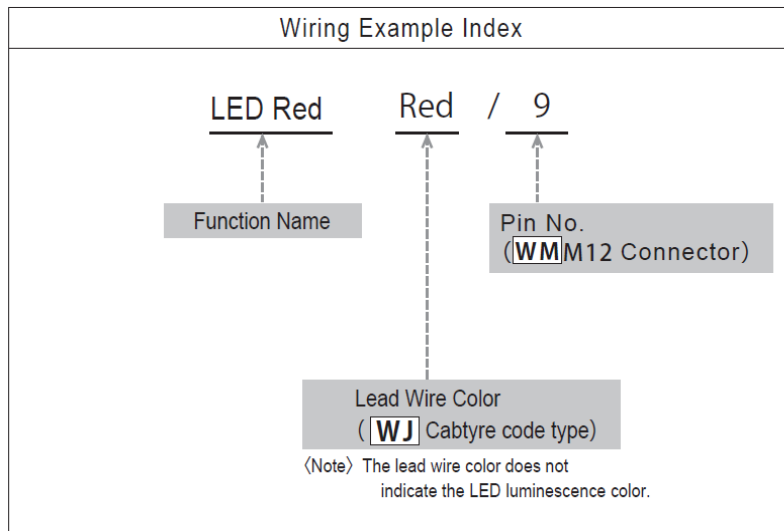
(Unit:mm)



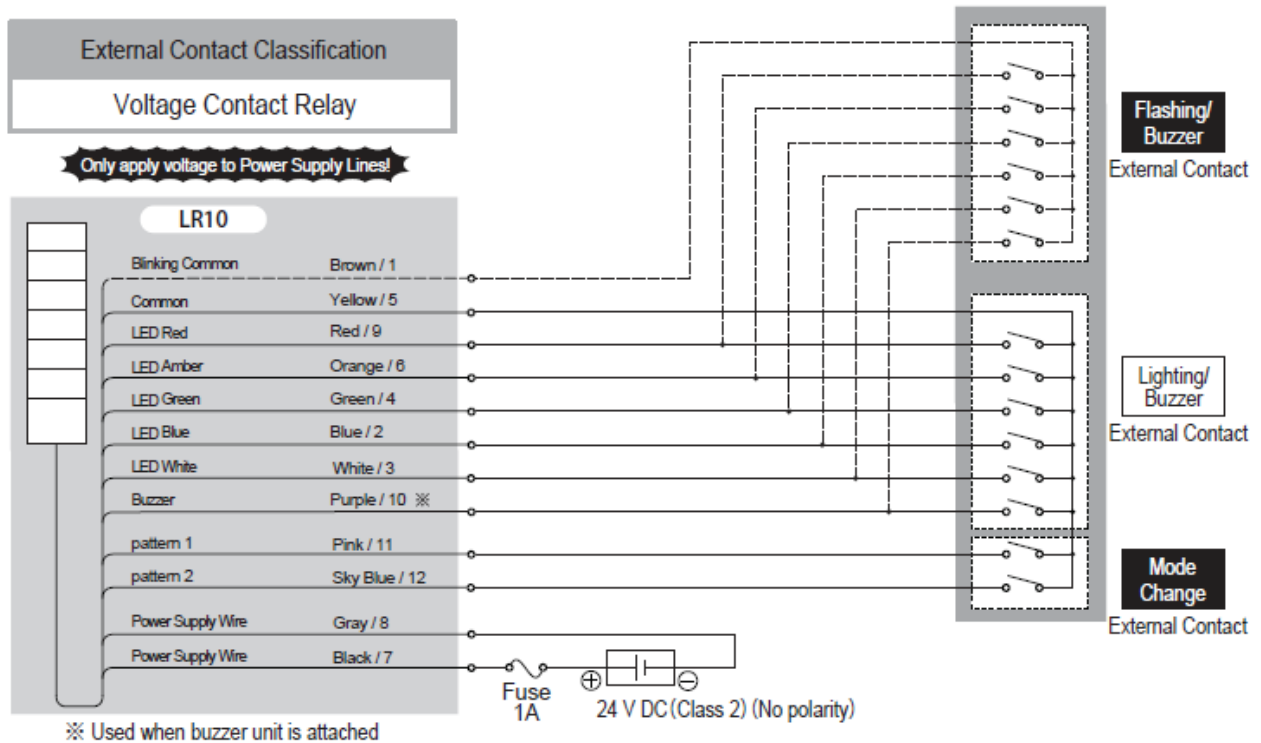
Recommended Torque
1.4 N m

5. Wiring Diagram

5.1 Wiring Example



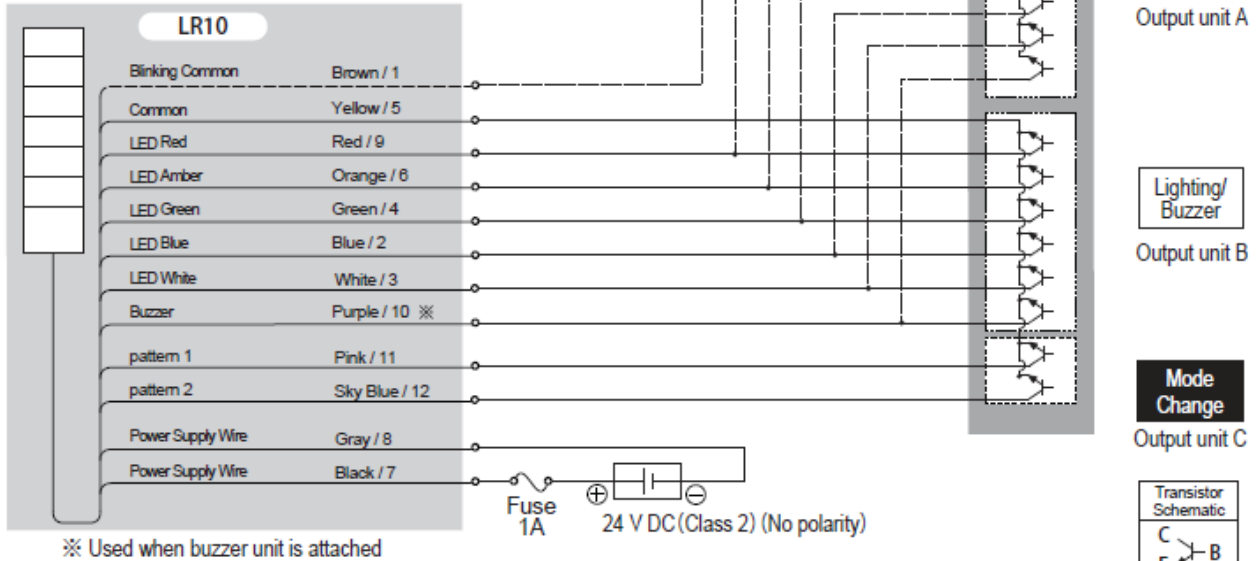
5.1.1 【LR10-02】Wiring Example



External Contact Classification

PLC (NPN Transistor)

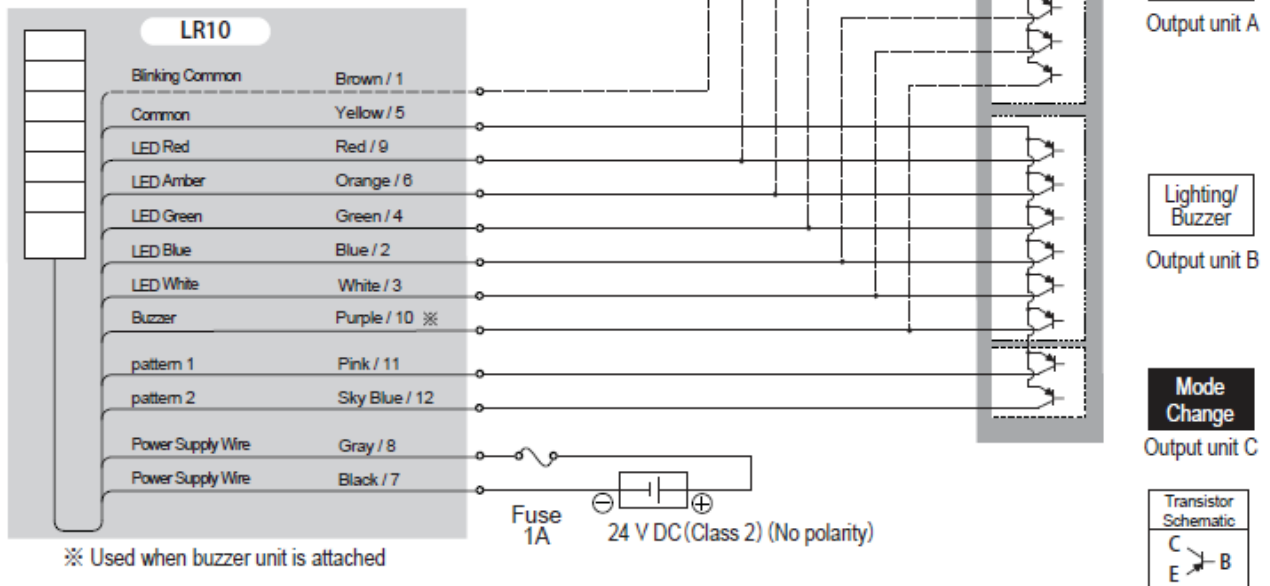
Only apply voltage to Power Supply Lines!



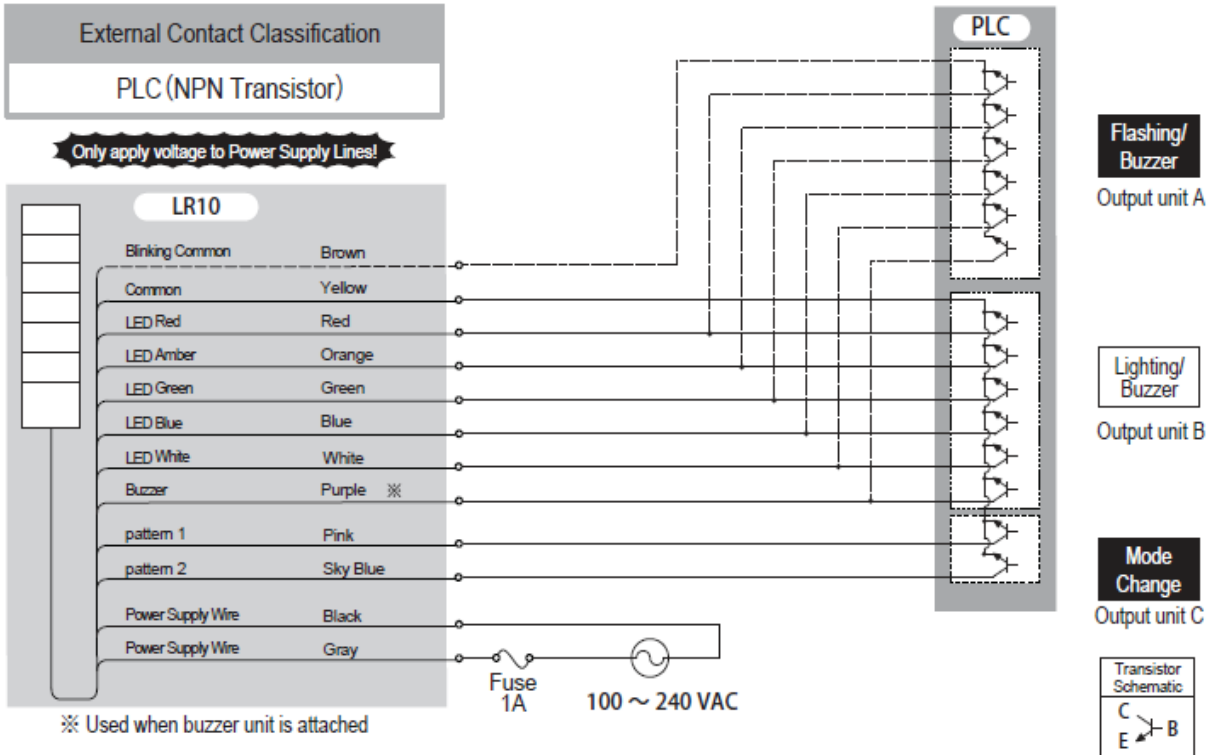
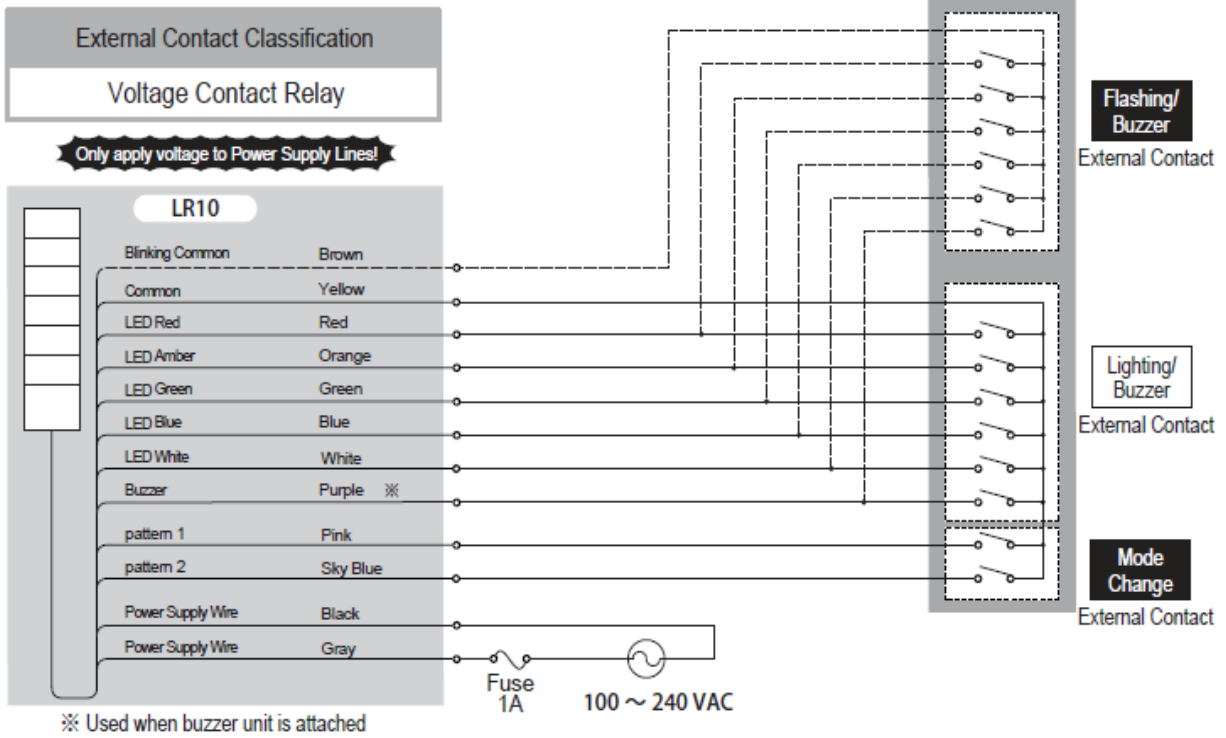
External Contact Classification

PLC (PNP Transistor)

Only apply voltage to Power Supply Lines!



5.1.2 【LR10-M2】Wiring Example



5.2 Flash Pattern Setting

It can be switched to Continuous, Rotating, Triple-Flash, or Dimmed continuous by shorting the common line with Pattern 1 or Pattern 2. The settings are shown in the table below.

■ Setup Table

Wiring		Flash Pattern
pattern1-Common	pattern2-Common	
OFF	OFF	Continuous
ON	OFF	Rotating
OFF	ON	Triple-Flash
ON	ON	Dimmed continuous

5.3 External Contact Capacity

■ Signal line

	O2	M2
Current Capacity (Is)	10mA or more	10mA or more
Withst and Voltage (Vs)	30V or more	30V or more
Lealage Current (I)	0.1mA or less	0.1mA or less

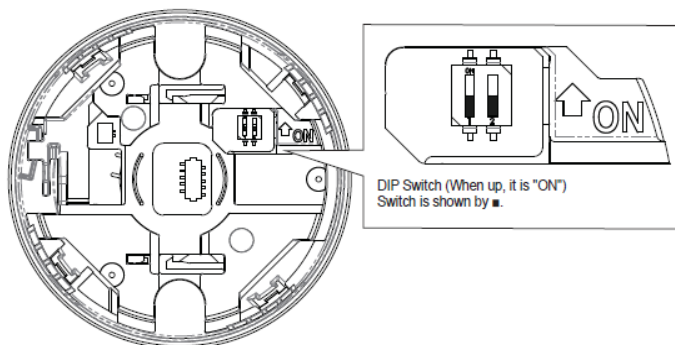
■ Recommended Fuse

Fuse Rating	250V / 1A
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[6.Buzzer Pattern Set-up]

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

Buzzer Unit Underside



■ 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

※It is set to "OFF" at all times after factory shipments.