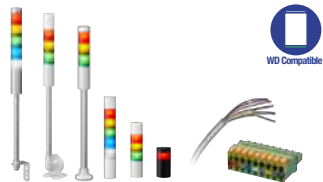
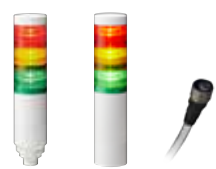


PATLITE®

Signal Tower LR Series



			
Page Number	P.5	P.17	P.19
Product Name	Signal Tower	Signal Tower	Signal Tower
Series	LR	LR (M12 connector)	LR4-WC
Size (mm)	Φ40 / Φ50 / Φ60 / Φ70	Φ60	Φ40
Conformity Standards	CE*1 / RoHS / UKCA*1 / UL FCC / KC*2	CE / RoHS / UKCA / UL FCC / KC	CE / RoHS / UKCA / UL / FCC / KC
IP/NEMA	IP65 / IP54*2 / NEMA TYPE 4X, 13	IP65 / IP54*1	IP65 / NEMA TYPE 4X, 13
Mounting Location	Indoor	Indoor	Indoor
Mounting Direction	Upright	Upright	Upright
Ambient Temperature	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C
Luminous Color	Red, Amber, Green, Blue, White, Multi-color (7 colors)*3	Red, Amber, Green, Blue*2, White*2, Multi-color (7 colors)*2	-
Light Pattern	Continuous On / Blinking	Continuous On	-
Modularity of LED Unit	✓	✓	✓
Flashes per Minute	60	-	-
Sound Pressure (dB)	85/88/90 (-10 Sound reduction selectable)	88 (-10 Sound reduction selectable)	-
Number of Alarm Sounds	4	4	-
Remarks	*1 Except M2LJ type *2 Except M2LJ / KT type *3 Φ60 type	*1 L4 / L5 / L8 model *2 W8 / L8 model	-

			
Page Number	P.21	P.23	P.26
Product Name	Signal Tower (IP69K Rated)	Signal Tower	Manual Control Signal Tower
Series	LR6+FB295	LR10	HSST
Size (mm)	Φ60	Φ100	Φ50
Conformity Standards	CE / RoHS / UKCA / UL / FCC / KC	CE / RoHS / UKCA / UL / FCC / KC	CE / RoHS / UKCA / UL / FCC
IP/NEMA	IP67 / IP69K	IP66 / IP69K / NEMA TYPE 4X,13	IP54 (Signal tower only)
Mounting Location	Indoor	Indoor / Outdoor	Indoor
Mounting Direction	Upright	Upright, Inverted	Upright
Ambient Temperature	-20°C to +50°C	-20°C to +50°C	0°C to +40°C
Luminous Color	Red, Amber, Green, Blue, White, Multi-color (7colors)	Red, Amber, Green, Blue, White	Red, Amber, Green
Light Pattern	Continuous On / Blinking	Continuous On / Blinking / Rotating / Flashing	Continuous On
Modularity of LED Unit	✓	✓	✓
Flashes per Minute	60	Blinking: 60 Triple Flashing: 120	-
Sound Pressure (dB)	88 (-10 Sound reduction selectable)	92	-
Number of Alarm Sounds	4	4	-
Remarks	-	-	-

				
Page Number	P.27	P.27	P.29	P.31
Product Name	Signal Tower with Ethernet	Signal Tower with Ethernet	Signal Tower with USB	Signal Tower with IO-Link
Series	LR5-LAN	LR5-LAN EtherNet/IP	LR6-USB	LR6-IL
Size (mm)	Φ50	Φ50	Φ60	Φ60
Conformity Standards	CE / RoHS / UKCA / UL / FCC / KC*1	CE / RoHS / UKCA / UL / FCC / KC*1	CE / RoHS / UKCA / UL / FCC / KC	CE / RoHS / UKCA / UL / FCC / KC
IP/NEMA	IP65 / IP54*2	IP65 / IP54*2	IP65	IP65 / NEMA TYPE 4X, 13
Mounting Location	Indoor	Indoor	Indoor	Indoor
Mounting Direction	Upright	Upright	Upright	Upright
Ambient Temperature	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C
Communication Interface	Ethernet	Ethernet	USB2.0	IO-Link
Supported Protocols	HTTP(S) / Modbus/TCP / SOCKET	EtherNet/IP	DLL, Linux	-
Luminous Color	Red, Amber, Green, Blue, White	Red, Amber, Green, Blue, White	Red, Amber, Green, Blue, White, Multi-color (7 colors)	Red, Amber, Green, Blue, White, Multi-color (7 colors)
Light Pattern	Continuous On / Blinking / Flashing	Continuous On / Blinking / Flashing	Continuous On / 4 patterns	Continuous On / Blinking / Flashing
Modularity of LED Unit	✓	✓	✓	✓
Flashes per Minute	60 / 120 / 240	60 / 120 / 240	-	60 / 120 / 240
Sound Pressure (dB)	85 (-10 Sound reduction selectable)	85 (-10 Sound reduction selectable)	80 / 70 (Adjustable volume)	84 (Adjustable volume)
Number of Alarm Sounds	4	4	4	1 (4 types)
Remarks	*1 Except SE type *2 LE / SE type	*1 Except SI type *2 LI / SI type	-	-

Product Lineup by Network

PATLITE provides a broad selection of products that support diverse FA system requirements, facilitating selection based on your specific system

FA Networks
& Compatible
PATLITE
Products

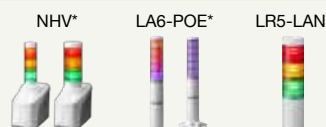
Information Network

Controller-to-Controller Network

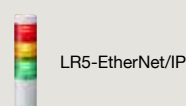
Field Network

Sensor Network

Ethernet



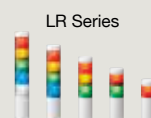
EtherNet/IP



IO-Link



I/O



USB

LR6-USB



NE-USB*



*These products are available in a separate catalog. Please refer to it for more information.

Signal Tower

LR Series

Modular LED Signal Tower

φ40mm

LR4

φ50mm

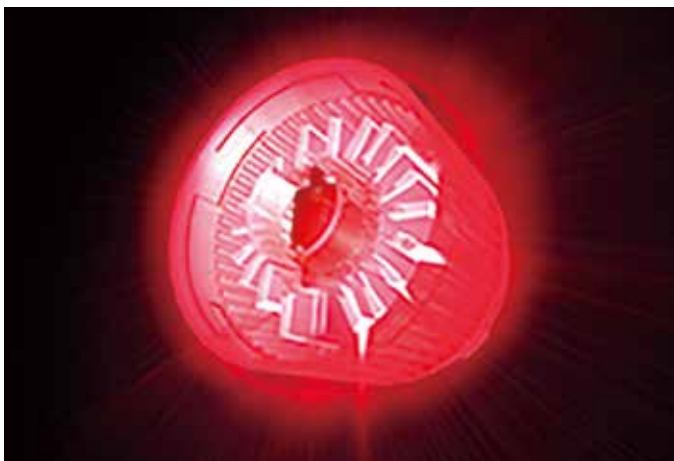
LR5

φ60mm

LR6

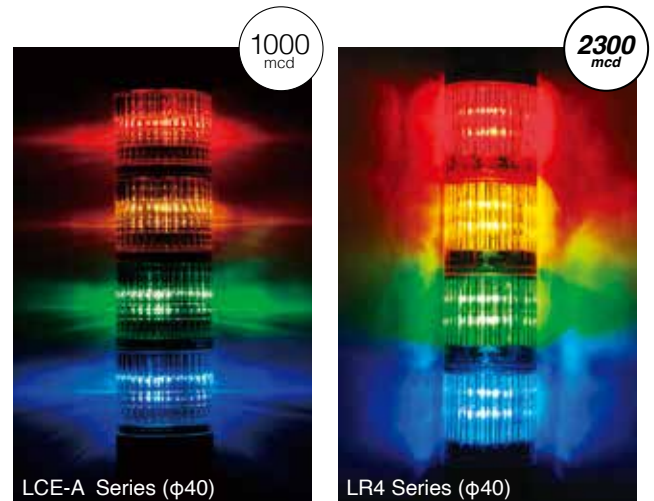
φ70mm

LR7



A Uniform 360° Light-Emitting Design

The new LED color module features a new, unique interior lens construction that achieves a fuller, more uniform 360° degree light output. Light color is vibrant with more emission area for reliable indication from further distances.



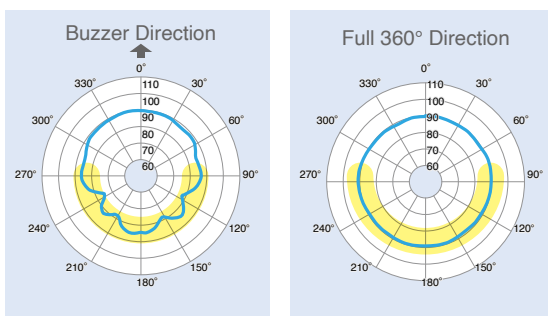
More than Twice the Light Output*

The LR Series lens distributes light more efficiently, increasing luminous intensity by more than double that of our current models.

*Based on the φ40 Red LED Model

Unique Method of Fully Enclosed Sound Module

Inspired by a drum percussion instrument, the fully enclosed sound module is able to more efficiently vibrate sound waves, producing even 360° omnidirectional sound resonance. Resistance to water and dust is also increased.



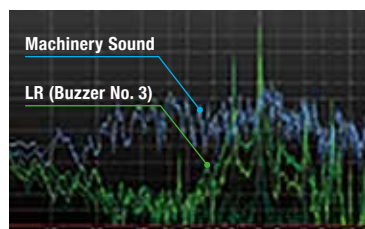
LHE Series (φ70)

LR7 Series (φ70)

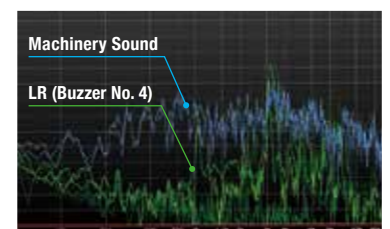
Maximum 90dB* Output

The fully enclosed buzzer module produces more efficient sound, up to 90dB, at 1 meter.

*LR7 buzzer No.4 (Sweep tone)



(Buzzer No.3) Rapid Hi-low Sound
2016Hz/3012Hz



(Buzzer No.4) Sweep Sound
1000Hz - 4032Hz (changing)

New Sounds Heard Above the Noise

4 built-in buzzer sounds. Buzzer sounds No. 3 and No. 4 are designed at a higher variable frequency to be heard above the noise of surrounding machinery. Alternatively, a sound reduction function of approx. -10dB is included for use in quieter environments.

*Four Buzzer Sounds

No.1 Rapid Intermittent sound No.2 Continuous sound No.3 Rapid Hi-low No.4 Sweep sound

Modular Components Example



Body Units



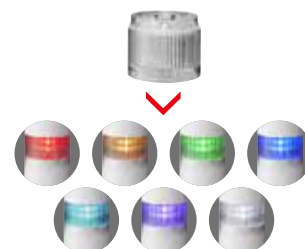
Buzzer Units



LED Units



Clear-globe LED Units



Multi-color LED Units

Optional Parts Example



Circular Bracket



L-bracket



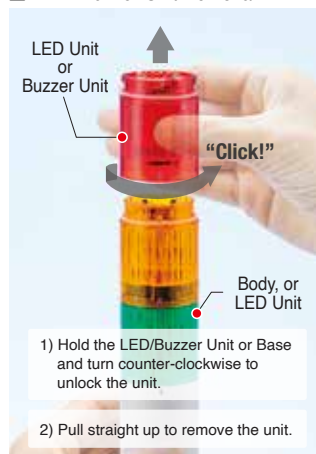
Wall-mount Bracket



Modular System Design

Traditional stack lights typically require additional threaded shafts or tools to reconfigure LED units. The LR modular system design redefines signal tower assembly by making customization and repair seamless.

LED / Buzzer Unit Removal



LED Unit Attachment



Reorganizing Modules is Effortless

The LR modular system makes reconfiguring the color order simple with it's twist-and-lock design. Replacing and reconfiguring LED units or adding a buzzer module is easier than ever.



Scan to see this in action



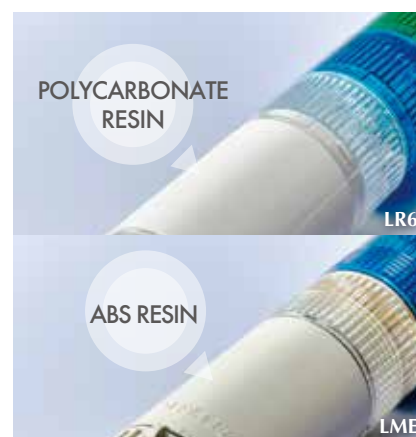
Smooth Surface

The LR base, LED units and buzzer modules secure together tight and flush, creating a smooth surface, ideal for easy cleaning and water run off.



Environmental Performance

Features a rugged structure with the following ratings: IP65 / NEMA Type 4X, 13 withstands various environmental conditions, such as water and dust.



Upgraded Materials

Upgrading from an ABS to Polycarbonate material, and silicon resin O-rings, results in a more lightweight, shock and water resistant product.



Signal Tower LR



Φ40 mm	Φ50 mm	Φ60 mm	Φ70 mm	LED	Indoor Use	Upright Mounting
Ambient Temperature -20°C ~ +50°C	Red, Amber, Green, Blue, White, Multi-color: 7 colors	Change Number of Tiers	Continuous On	60 Flashes per Minute	85dB (LR 4, LR 5)	88dB (LR 6)
90dB (LR 7)	4 Buzzer Sounds	CE / RoHS10 (Except M2LJ type)	UKCA (Except M2LJ type)	UL	FCC	KC (Except M2LJ/KT type)
IP65	IP54 (LJ Type)	NEMA TYPE 4X,13				

* When using 12V DC: 80dB



Model Number Configuration

Φ40mm

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 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 Luminous Color R = Red Y = Amber G = Green B = Blue C = White	⑦ Lens Type None = Colored Z = Clear
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*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

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 Luminous Color R = Red Y = Amber G = Green B = Blue C = White	⑦ Lens Type None = Colored Z = Clear
--	--	--	--	--------------------------------------	---	---

Φ60mm

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	④ Flashing/Buzzer B = With Flashing/Buzzer N = No Flashing/Buzzer	⑤ Body Color W = Off-white U = Silver *3	⑥ Luminous Color R = Red Y = Amber G = Green B = Blue C = White	⑦ Lens Type None = Colored Z = Clear
--	--	---	--	---	---	---

*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

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 Luminous Color R = Red Y = Amber G = Green B = Blue C = White
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Specifications

Supported Transistors	NPN/PNP (Excluding M2 type)
Alarm Sound	4 patterns (Switch by DIP switch) No.1: Intermittent sound No.2: Continuous sound No.3: Continuous sound No.4: Sweep sound *It is possible to sound an alarm that turns on and off in 0.5 second cycles by shorting the buzzer and flashing common lines.
Volume control	Sound can be reduced by DIP switch

Optional Parts

Product Name	Model Number
Circular Bracket	SZW-001W
Circular Bracket	SZ-010
Wall Mount Bracket	SZK-002W/U/K
Wall Mount Bracket	SZK-003W/U/K
Wall Mount Bracket	SZK-004W
Circular Multi-mount Bracket	SZP-001W/U/K
1/2" NPT Bracket	SZP-090U
1/2" NPT Bracket	SZP-091U

Product Name	Model Number
Pole-compatible Adaptor	SZP-917U
Mounting Bracket	SZW-002W
Mounting Bracket	SZW-003W
Circular Bracket	SZP-002U
Folding Bracket	SZQ-001W
Circular Bracket	SZP-003W/U/K
L-Bracket	SZL-001
Wall Mount Bracket	SZK-001U

LR5/LR7 Screwless Terminal Knock-out Mount

Dual mount base unit allows for direct or pole mounting

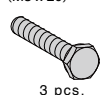


Screw and nut accessories included.

Accessory

LR5 - KT

Hexagon Bolt
(M3 x 20)



3 pcs.

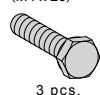
Hexagon Nut with
Flange (M3)



6 pcs.

LR7 - KT

Hexagon Bolt
(M4 x 20)



3 pcs.

Hexagon Nut with
Flange (M4)

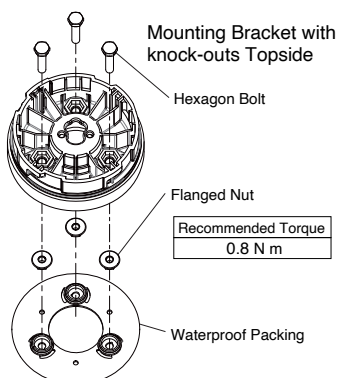


6 pcs.

Installation Method 1

Direct Mount (Using accessories)

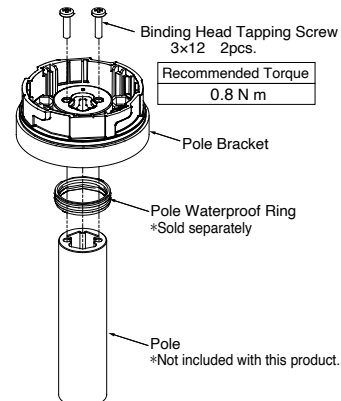
Mount directly by knocking out holes in the bracket and securing with nuts and bolts.



Installation Method 2

Pole Mount (Not Using accessories)

Mount the pole bracket with the tapping screws included with the bracket.



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

Replacement Parts

■ O-ring (5 per pack)/Headcover



O-ring 40
Model:
B25110065-F1



Headcover 40
Model:
[W] B32310070-7F1
[U] B32310070-9F1



O-ring 50
Model:
GA0010918-F1



Headcover 50
Model:
[W] B32310071-7F1
[K] B32310071-8F1
[U] B32310071-9F1



O-ring 60
Model:
B25110067-F1



Headcover 60
Model:
[W] B32310072-7F1
[U] B32310072-9F1



O-ring 70
Model:
B25110068-F1



Headcover 70
Model:
[W] B32310073-7F1
[K] B32310073-8F1
[U] B32310073-9F1

■ Base Unit

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



LR4
Model:
[W] B22210159-7F1
[U] B22210159-9F1



LR5
Model:
[W] B22210160-7F1
[K] B22210160-8F1
[U] B22210160-9F1



LR6
Model:
[W] B22210161-7F1
[U] B22210161-9F1



LR7
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

Signal Tower

LR Series Modular Models

Select a Buzzer Unit (for Flashing / Buzzer function)



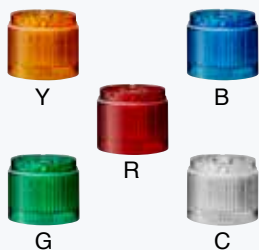
LR4 - 7

Φ40 - Φ70

Model Number	Size (mm)	Mass
LR4-BW/U	Φ40	0.035kg
LR4-BW+B0960*	Φ40	0.035kg
LR5-BW/U/K	Φ50	0.05kg
LR5-BW+B0960*	Φ50	0.05kg
LR6-BW/U	Φ60	0.06kg
LR6-BW+B0960*	Φ60	0.06kg
LR7-BW/U/K	Φ70	0.07kg

*External switching control of multiple alarms are possible with two signal wires.

Select an LED Unit



LR4 - 7

Φ40 - Φ70

Size	Color	Model
Φ40		LR4-E-R/Y/G/B/C
		LR4-E-RZ/YZ/GZ/BZ CLEAR
Φ50		LR5-E-R/Y/G/B/C
		LR5-E-RZ/YZ/GZ/BZ CLEAR
Φ60		LR6-E-R/Y/G/B/C
		LR6-E-RZ/YZ/GZ/BZ CLEAR
Φ70		LR7-E-R/Y/G/B/C
Φ60		LR6-E-MZ Multi-color

Select a Body Unit

Mounting Type	Rated Voltage	Size	Model
Direct Mount/ Cable	12V DC	Φ50	LR5-01WJNW
		Φ40	LR4-02WJNW[U]
	24V DC	Φ50	LR5-02WJNW
		Φ60	LR6-02WJNW[U]
		Φ70	LR7-02WJNW
	100 - 240V AC	Φ40	LR4-M2WJNW
Direct Mount/ Screwless Terminal	24V DC	Φ50	LR5-02WTNW[U][K]
		Φ70	LR7-02WTNW[U][K]
Knock-out Mount/ Screwless Terminal	24V DC	Φ50	LR5-02KTNW[U][K]
		Φ70	LR7-02KTNW[U][K]
Direct Mount/ M12 Connector (Mounting with M30 Nut)	24V DC	Φ60	LR6-02WCNW
Direct Mount/ M12 Connector (Mounting with 3 Hexagon Bolts)	24V DC	Φ60	LR6-02WMNW

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

Model ① ② ③ ④ ⑤

① **Size**

4 = Φ40
5 = Φ50
6 = Φ60
7 = Φ70

② **Rated Voltage**

01 = 12V DC^{*1}
02 = 24V DC
M2 = 100 - 240V AC^{*2}

③ **Mounting/Wiring**

WJ = Direct Mount/Cable
WT = Direct Mount/Terminal^{*3}
KT = Knock-outs Mount/Terminal^{*3}
WC = Direct Mount/M12 Connector (Mounting with M30 Nut)^{*4}
WM = Direct Mount/M12 Connector (Mounting with 3 Hexagon Bolts)^{*4}
LJ = Pole Mount with L-bracket/Cable^{*5}
PJ = Pole Mount with Circular Bracket/Cable^{*5}
QJ = Pole Mount with Folding Bracket/Cable^{*6}

④ **Flashing/Buzzer**

N = No Flashing/Buzzer

⑤ **Body Color**

W = Off-white
U = Silver
K = Black^{*7}

^{*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

LED Unit Same-Color Individual Control

● LR Model Code + B0962 [LR4 / LR5 / LR6]

● LR LED Unit Model Code + B0962 [LR4 / LR5 / LR6]

By assigning wire colors that are not used in other LED units to custom LED units, it becomes possible to control the lighting of multiple same-color LED units individually.

* The assembled product only includes the color glove.

Ex) LR4-302WJNW-RRY + B0962

R: Standard LED Red Unit (wiring red) R: Custom LED Red Unit (wiring green)

Y: Standard LED Amber Unit (wiring orange)

LR6-E-RW + B0962

LR6 LED Red Unit (wiring White)

LED Color	Red	Amber	Green	Blue	White
Standard product wire color	Red	Orange	Green	Blue	White
Custom product wire color	Assign wire colors that are not used by other units				



Ex)

LR□-□□WJ□□-RRY+B0962

Standard LED Red Unit:
Lights up with wiring (red)

Custom LED Red Unit:
Lights up with wiring (green)

Standard LED Amber Unit:
Lights up with wiring (orange)



Mounting Type	Rated Voltage	Size	Model
 Pole Mount with Circular Bracket/Cable	12V DC	φ50	LR5-01PJNW
		φ40	LR4-02PJNW[U]
	24V DC	φ50	LR5-02PJNW
		φ60	LR6-02PJNW[U]
	100 - 240V AC	φ40	LR4-M2PJNW
		φ60	LR6-M2PJNW
 Pole Mount with L-bracket/Cable	12V DC	φ50	LR5-01LJNW
		φ40	LR4-02LJNW[U]
	24V DC	φ50	LR5-02LJNW
		φ60	LR6-02LJNW[U]
	100 - 240V AC	φ40	LR4-M2LJNW
		φ60	LR6-M2LJNW
 Pole Mount with Folding Bracket/Cable	24V DC	φ40	LR4-02QJNW
		φ60	LR6-02QJNW

Removable Screwless Terminal



A new removable terminal for easier wiring.



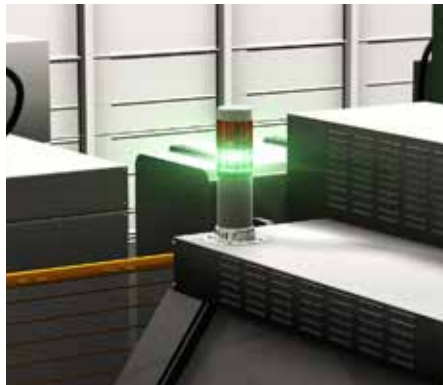
The terminal can be pulled out



Signal Tower

LR Series Optional Parts

Direct Mount Brackets

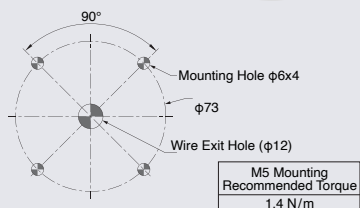


Circular Bracket

Model: SZW-001W

Material: SPCE

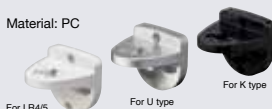
■ Mounting Dimensions (Unit: mm)



Wall-mount Bracket

Model: SZK-002W/U/K

Material: PC

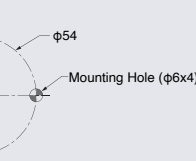


■ Mounting Dimensions (Unit: mm)



SZK-003W/U/K

Material: PC



SZK-004W

Material: PC



The wiring can exit through the bracket.
*M16xP1.5 cable gland attachment needs to be purchased additionally

N Type Aluminum Pole Brackets

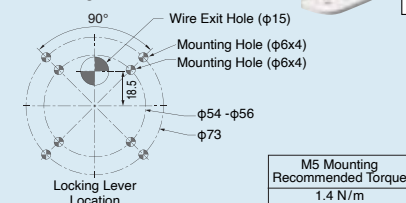


Folding Bracket

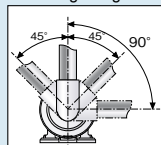
Model: SZQ-001W

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

■ Mounting Dimensions (Unit: mm)



■ Folding Range

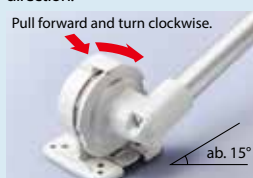


See the Movie!

- 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

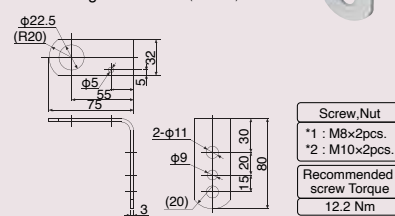


L-bracket

Model: SZL-001

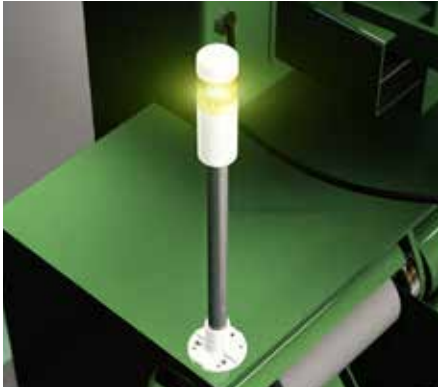
Material: SPHC-P

■ Mounting Dimensions (Unit: mm)





N Type Aluminum Pole Brackets



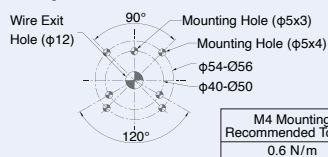
Circular Multiple-mount Bracket

Model: SZP-001W

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

Material: PC

■ Mounting Dimensions (Unit: mm)



M4 Mounting
Recommended Torque
0.6 N/m



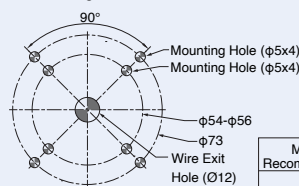
Circular Bracket

Model: SZP-002U

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

Material: ADC12

■ Mounting Dimensions (Unit: mm)



M4 Mounting
Recommended Torque
0.6 N/m



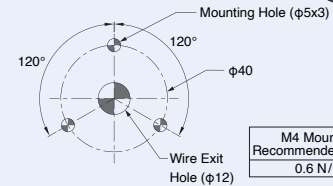
Circular Bracket

Model: SZP-003W/U/K

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

Material: PC

■ Mounting Dimensions (Unit: mm)



M4 Mounting
Recommended Torque
0.6 N/m



N & T Aluminum Pole Brackets



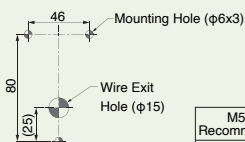
Wall-mount Bracket

Model: SZK-001U

Accessories: Hexagon Socket Set Screw
(2 pcs.)

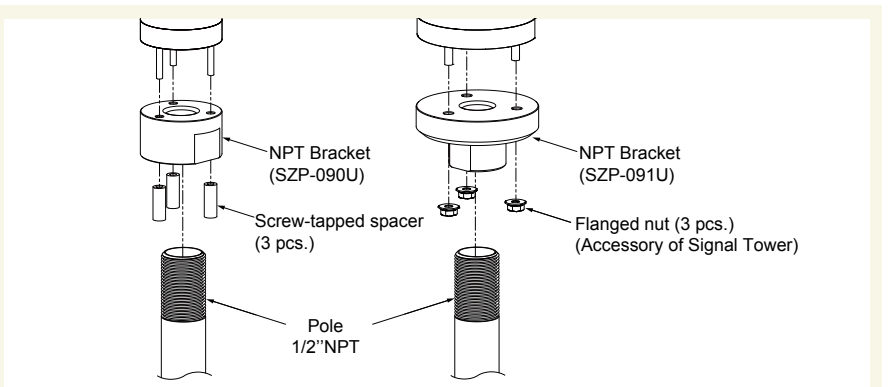
Material: ADC12

■ Mounting Dimensions (Unit: mm)



M5 Mounting
Recommended Torque
1.4 N/m

1/2" Type Pole Brackets



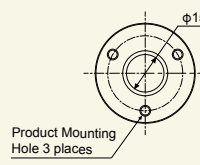
NPT Bracket

Model: SZP-090U

Accessories: Screw-tapped spacer (3 pcs.)

Material: AL

■ Mounting Dimensions (Unit: mm)

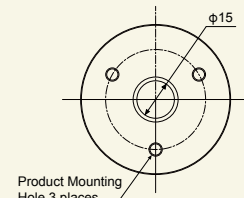


Recommended Torque
0.6 N/m

SZP-091U

Material: AL

■ Mounting Dimensions (Unit: mm)



Recommended Torque
0.6 N/m

Wiring Diagrams

■ Wire Type & Wire Gauge

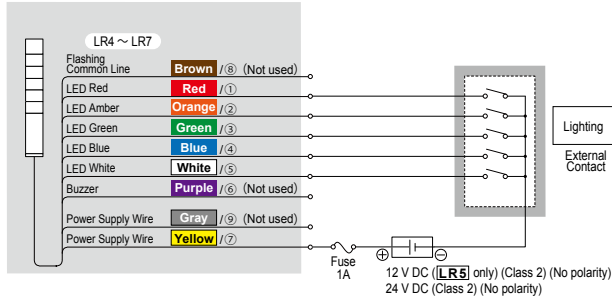
Wire Type:.....UL2464

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

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

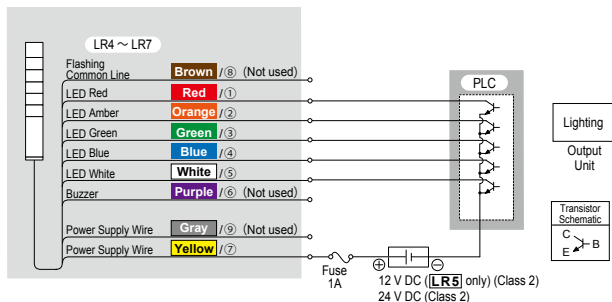
External Contact Classification

Voltage Contact Relay



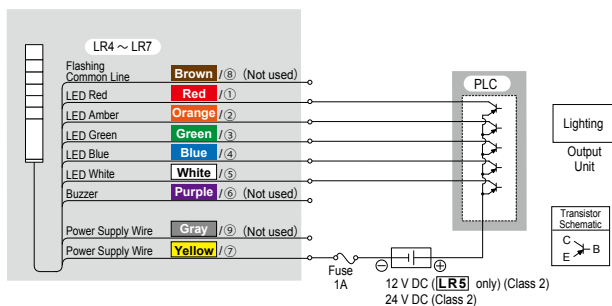
External Contact Classification

PLC (NPN Transistor)



External Contact Classification

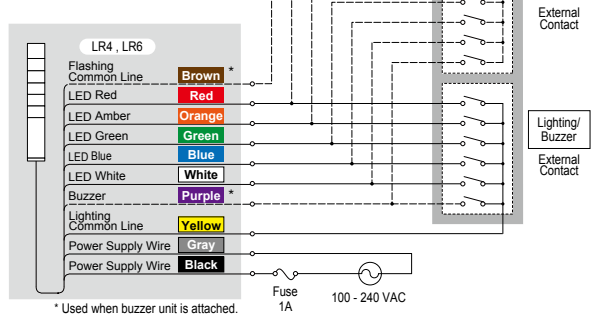
PLC (PNP Transistor)



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

External Contact Classification

Voltage Contact Relay

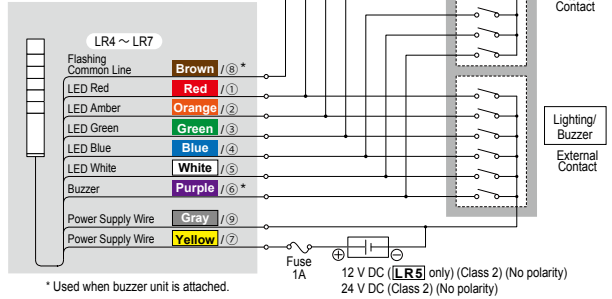


Wiring Example Index	LED Red	Function Name	Lead Wire Color (Cable type)	PIN No.	WT	Direct Mount with Terminal Block, KT	Mounting Bracket with knock-outs Terminal Block
	RED / ①						Refer to pg. 12 "Terminal Block Array"

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

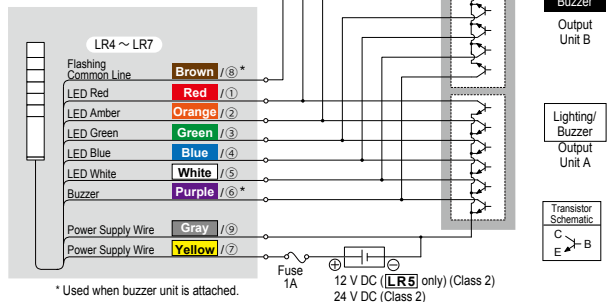
External Contact Classification

Voltage Contact Relay



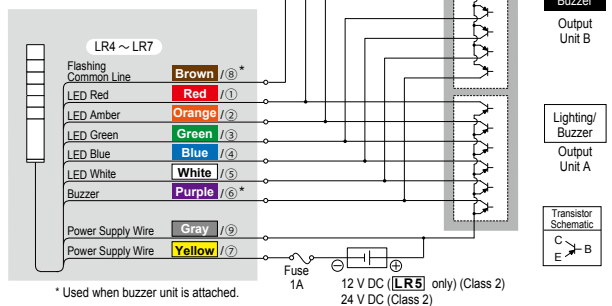
External Contact Classification

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.

■ Wire Type & Wire Gauge

Wire Type:.....UL2464

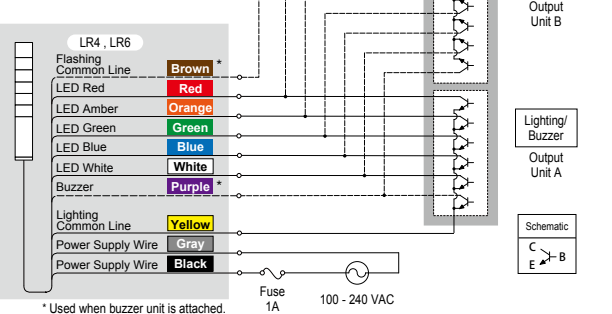
Wire Gauge:.....[M2] 100~240V AC

Signal Wire : AWG24

Power Supply Wire : AWG18

External Contact Classification

PLC (NPN Transistor)



Multi-color Wiring Diagrams

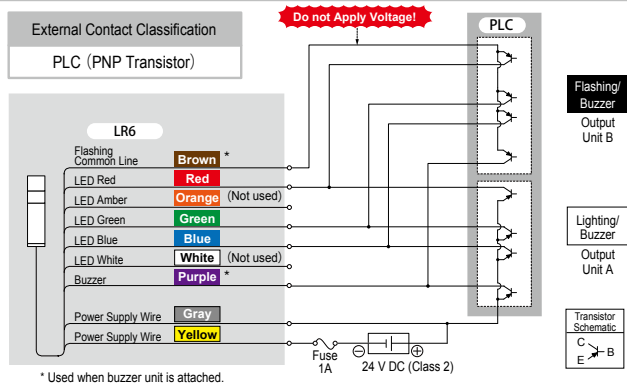
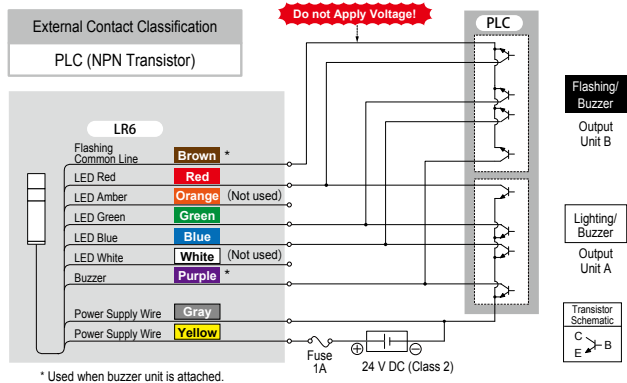
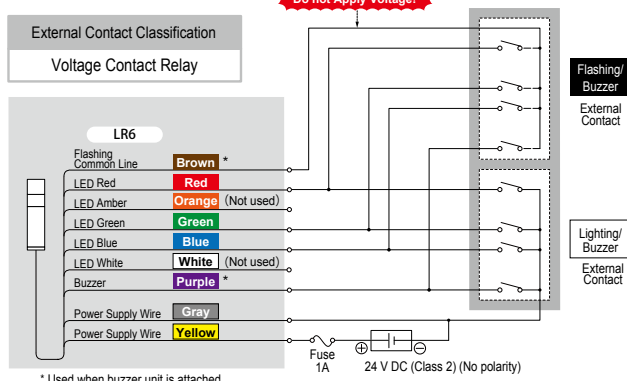
Multi-color LED Unit wire colors are **RED** / ①; **Green** / ③; **Blue** / ④. Wire colors **Orange** / ② and **White** / ⑤ are not used.
Refer to the Complete User's Manual for details.

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)

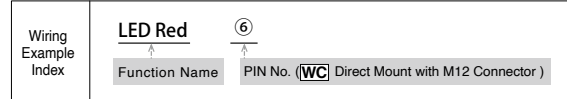
Product Specifications **02** 24V DC



Point

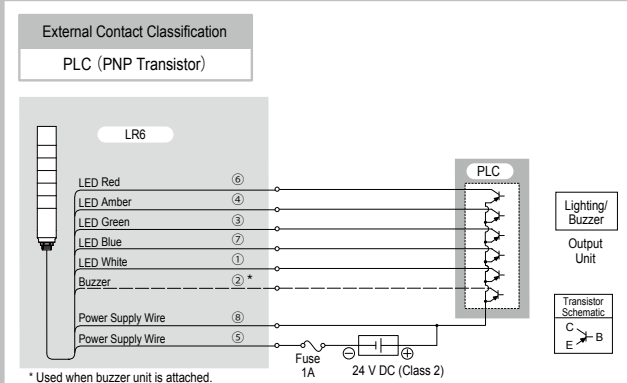
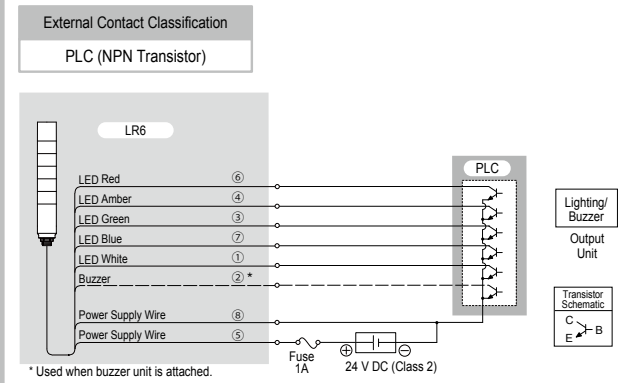
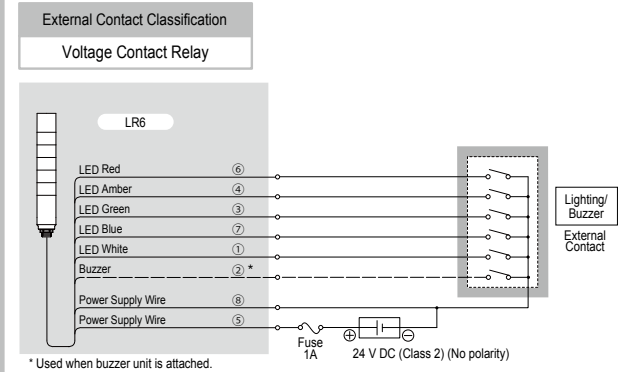
- When flashing the LR6-E-MZ simultaneously with the LR6-E-R(Z)/Y(Z)/G(Z)/B(Z)/C, the flashing cycle of the LR6-E-MZ may shift from the other LED units.

M12 (LR6-WC/WM)Wiring Diagrams



Lighting / Buzzer (LR6-WC/WM)

Product Specifications **02** **WC/WM** 24V DC

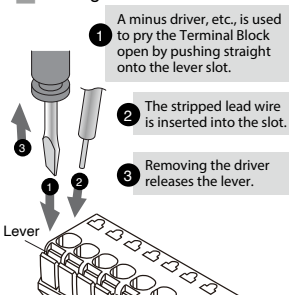


Point

- The flashing function cannot be used.

[WT],[KT] Terminal Type

Wiring Method



Terminal Block Array

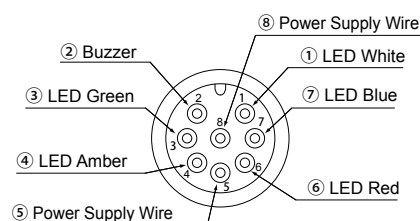
9	Black	Power (Signal)
8	Gray	Flashing Common
7	Yellow	Power (Common)
6	Gray	Buzzer
5	White	LED White
4	Blue	LED Blue
3	Green	LED Green
2	Orange	LED Yellow
1	Red	LED Red

Recommended lead wire specification

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 Connector Pin Layout

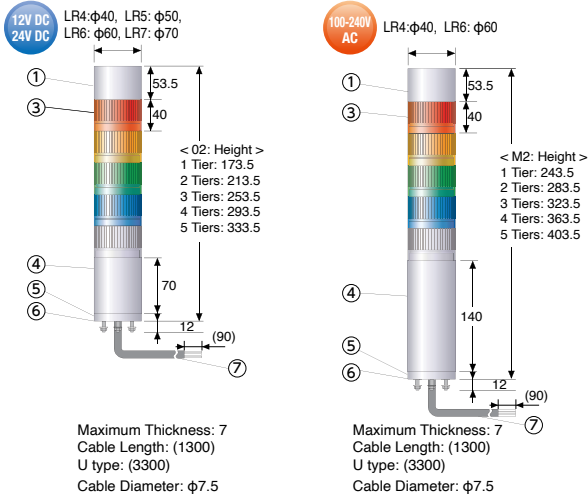


Point

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

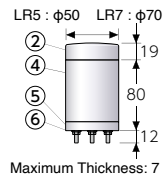
Outer Dimensional Drawing (Unit: mm)

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

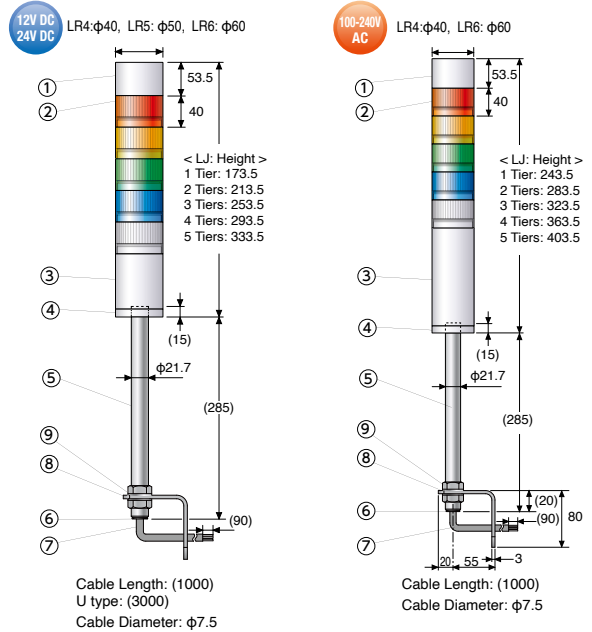


No.	Description	Material
①	Buzzer Unit	PC
②	Head Cover	PC
③	LED Unit	Globe: PC
④	Body	PC
⑤	Direct Mount Bracket	PC
⑥	Waterproof Packing	Silicon Rubber
⑦	Cable	PVC

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

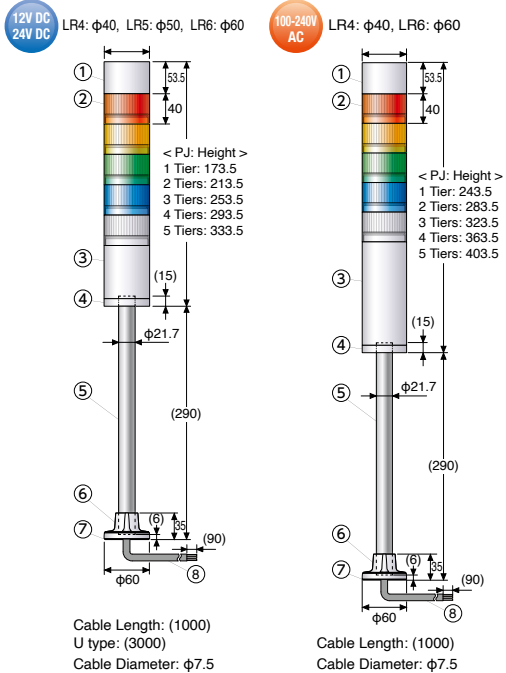


Mount B [LJ] Pole Mount with L-bracket & Cable
(01: 12V DC / 02: 24V DC) (M2: 100-240V AC)



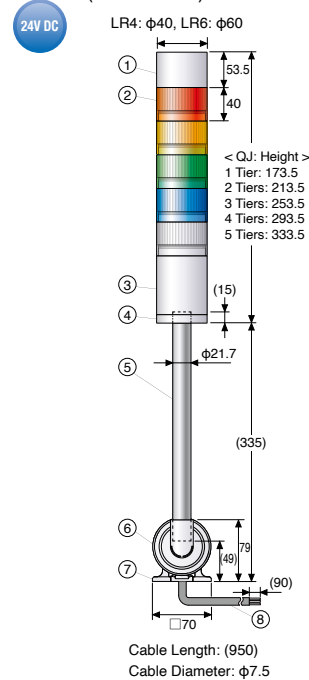
No.	Description	Material
①	Buzzer Unit	PC
②	LED Unit	Globe: PC
③	Body	PC
④	Pole Bracket	PC
⑤	Pole	AL
⑥	Rubber Bushing	EPR Rubber
⑦	Cable	PVC
⑧	L-bracket	Steel
⑨	Hexagon Nut M22	SUM

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



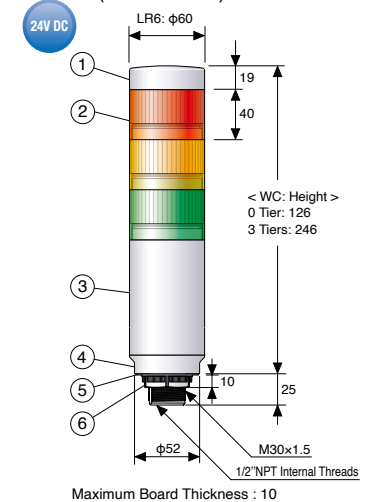
No.	Description	Material
①	Buzzer Unit	PC
②	LED Unit	Globe: PC
③	Body	PC
④	Pole Bracket	PC
⑤	Pole	AL
⑥	Circular Bracket	PC
⑦	Waterproof Packing	Silicon Rubber
⑧	Cable	PVC

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

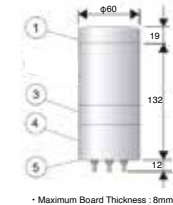


No.	Description	Material
①	Buzzer Unit	PC
②	LED Unit	Globe: PC
③	Body	PC
④	Pole Bracket	PC
⑤	Pole	AL
⑥	Folding Bracket	PC
⑦	Waterproof Packing	CR
⑧	Cable	PVC

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

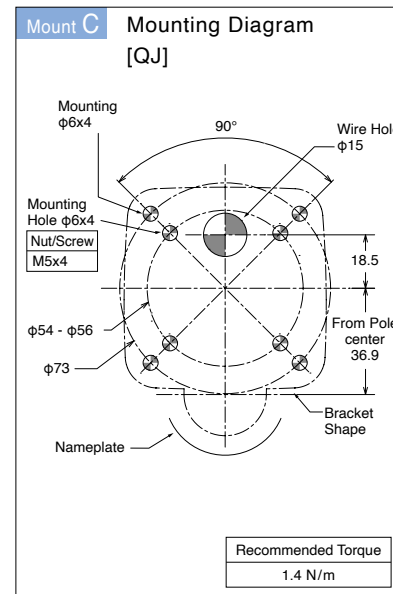
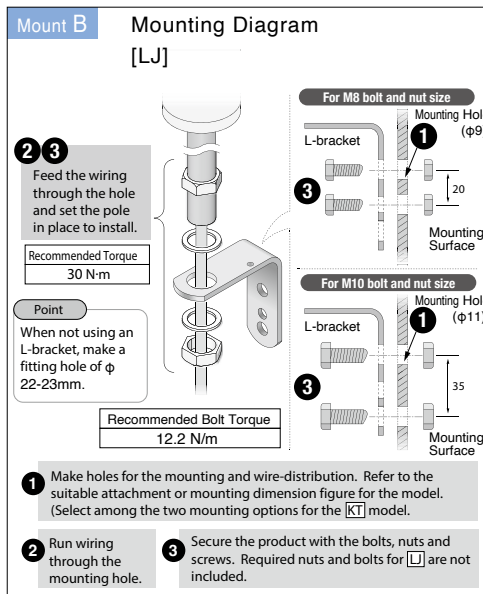
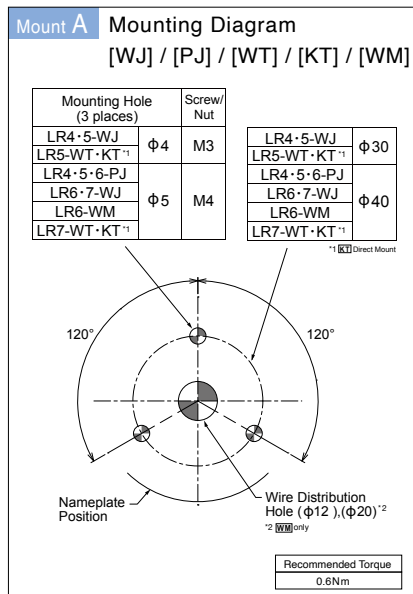


**Mount A [WM] Direct Mount/M12
Connector (Mounting
with 3 Hexagon Bolts)**



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

Mounting Dimensions (Unit: mm)



Specifications

Operating Ambient Temperature	-20 ~ +50°C
Operating Ambient Humidity	Less than 90% RH (No Condensation)
Storage Ambient Temperature	-30 ~ +60°C
Storage Ambient Humidity	Less than 90% RH (No Condensation)
Mounting Location	Indoor Only
Mounting Direction	Upright
Protection Rating ^{*1}	IP65 (IEC 60529) / NEMA TYPE 4X, 13
Environmental Conditions	Upright
Insulation Resistance	More than 1MΩ at DC500V between live part and non-current carrying metallic part
Withstand Voltage	500V AC applied for 1 minute between live part and non-current carrying metallic part without breaking insulation (M2: 1500V AC for 1 min.)
Flash Rate	60 ±2 Flashes Per Minute
Sound Pressure Level	LR4 Typ. 85dB LR5 Typ. 85dB LR6 Typ. 88dB LR7 Typ. 90dB LR5 DC12V Typ. 80dB
Sound Reduction ^{*2}	Approx. -10dB
Environmental Conditions	Buzzer Sound No.4 was measured from the total circumference of the Buzzer Unit at 1m
Buzzer Sound	4 patterns ^{*2} No.1 Rapid Intermittent beep No.2 Continuous beep sound No.3 Rapid Hi-low No.4 Sweep sound
Transistor Output	NPN / PNP (100 - 240V AC is NPN only)
Conformity Standards	- UL 508, CSA-C22.2 No.14 - FCC Part 15 Subpart B Class A - RoHS Directive (EN IEC 63000) - EMC Directive (EN 61000-6-4, EN 61000-6-2) - KC (KN 61000-6-4, KN 61000-6-2)^{*3} - Low-voltage Directive (IEC/EN 60947-5-1, EN62471)^{*4}

^{*1}: LJ Type is IP54 ^{*2}: Dependent on DIP Switch Settings ^{*3}: Except KT and M2 LJ Type ^{*4}: M2 Type Only (Except LJ Type)

External Contact Capacity

Is:Current Capacity Vs:Withstand Voltage IL:Leakage Current Ta:Ambient Temperature

Rated Load Voltage		[01] 12V DC	[02] 24V DC	[M2] 100 - 240V AC
LED Unit (1 Tier)	Signal Wire Current (Max.) / Voltage	100mA / Power Supply Voltage	45mA / Power Supply Voltage	45mA / 24V DC
	Recommended Contact Capacity	Is ≥ 100mA Vs ≥ 20V DC ^{*1}	Is ≥ 100mA Vs ≥ 35V DC	Is ≥ 100mA Vs ≥ 35V DC
Buzzer	Signal Wire Current (Max.) / Voltage	250mA / Power Supply Voltage	250mA / Power Supply Voltage	250mA / 24V DC
	Recommended Contact Capacity	Is ≥ 300mA Vs ≥ 20V DC ^{*1}	Is ≥ 300mA Vs ≥ 35V DC	Is ≥ 300mA Vs ≥ 35V DC
Power Supply	Current Consumption (Max.)	500mA	250mA	150mA
	Recommended Contact Capacity	Is ≥ 700mA Vs ≥ 20VDC	Is ≥ 500mA Vs ≥ 35V DC	Inrush current or more contacts
Inrush Current	Signal Wire	LED None ^{*1} / Buzzer None	LED None / Buzzer None	None
	Power Supply Wire	0.7A / Less than 15ms	None	Ta=25°C : 25A / Less than 2ms (Cold-start) Ta=50°C : 50A / Less than 2ms (Cold-start)
Leakage Current		IL ≤ 0.1 mA		

^{*1}: When the (Gray) for [WJ] [LJ] [PJ] [QJ], Black / (Yellow) for [WT] [KT], (Blue) for [WC] [WM] power supply wire is not connected, inrush current of 0.7A will flow through the signal wire.
Recommended Contact Capacity : ≥ 700mA Vs ≥ 20VDC

LED Unit Specifications

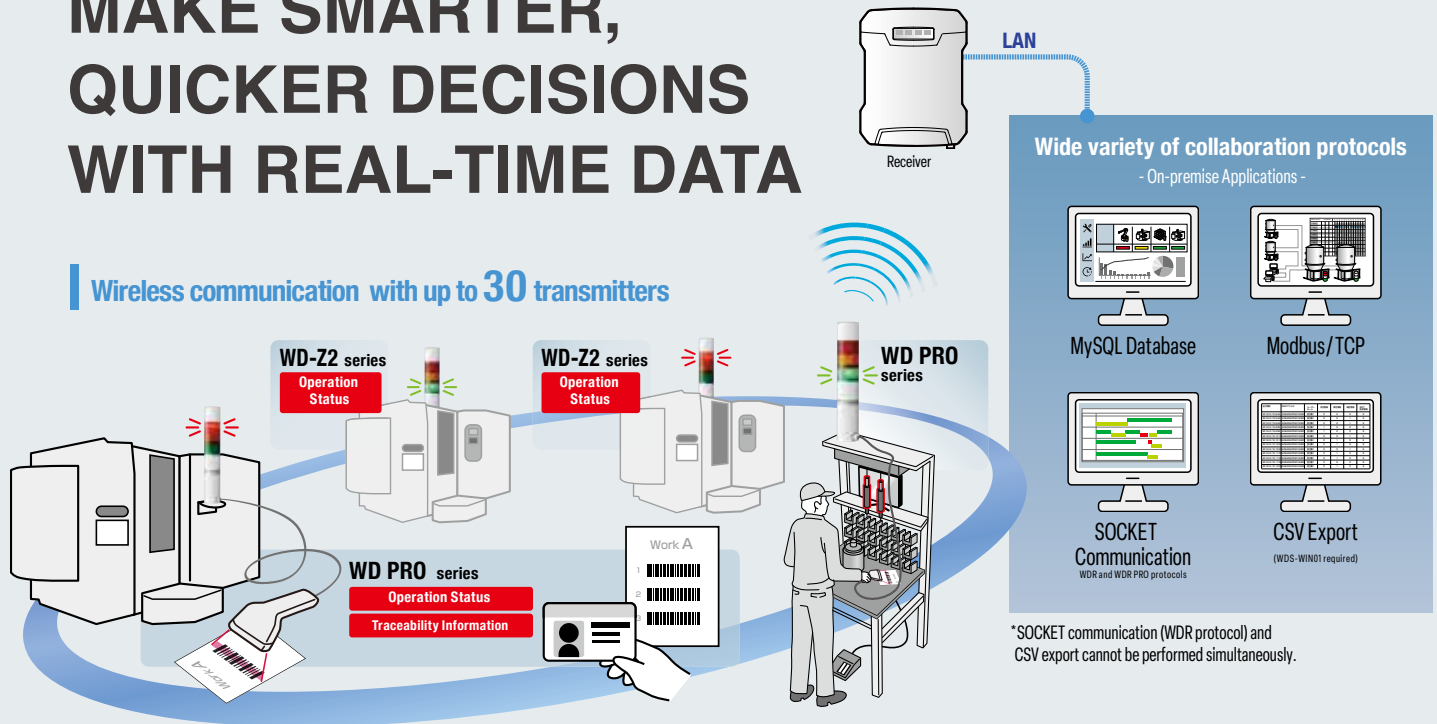
Color	Red	Amber	Green	Blue	White	Multi-color
Rated Voltage	24V DC					
Current Consumption	Typ.	0.04A				
	Max.	0.045A				
Power Consumption	Typ.	1W				
	Max.	1.3W				

Buzzer Unit Specifications

Rated Voltage	24V DC	
Current Consumption	Typ.	0.04A
	Max.	0.3A
Power Consumption	Typ.	1W
	Max.	1.3W

Wireless Data Acquisition System

MAKE SMARTER, QUICKER DECISIONS WITH REAL-TIME DATA



Transmitters

Wireless Data Acquisition System

WD-Z2 series

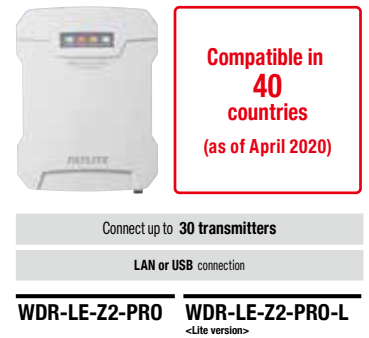


Wireless Data Acquisition System

WD PRO series

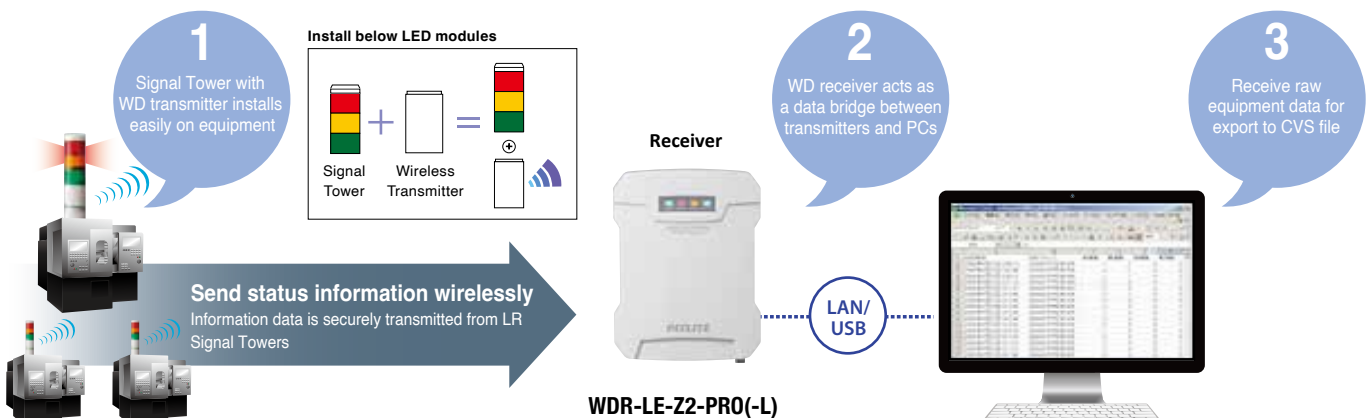


Receivers



* Due to the characteristics of radio waves, this value is for reference only.

Monitor and acquire critical equipment data



Wireless control unit WIO Series

WIO

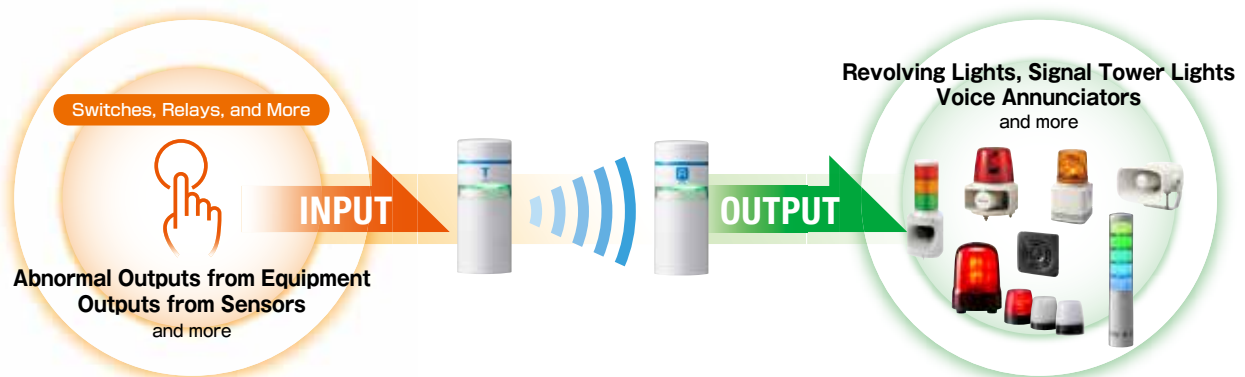
Φ60 mm	Indoor Use	7 Inputs* (Transmitter)	1 Input (Receiver)
CE / RoHS10	UKCA	UL	FCC
IP65	* 1 input of 7 inputs dedicated to buzzer		



Available up to 5 LED units/5 colors



Alerting Rotating Lights, Indicator Lights, Voice Synthesis Alarms, and more!

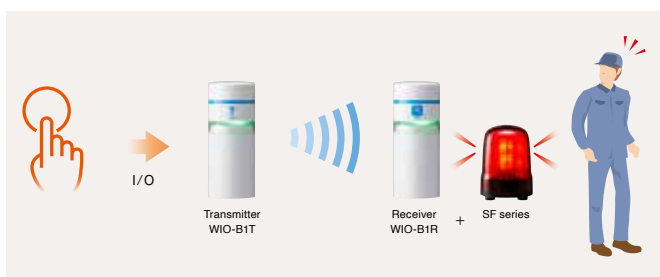


Mirror Device Status With Added LED Units!



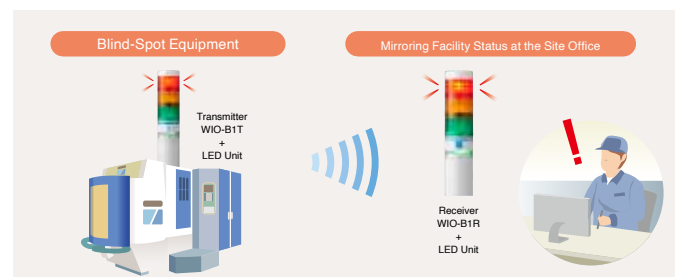
Call for action system

Customer Challenges	When abnormal stoppages occur that operators cannot handle, it takes too long to call maintenance personnel who are not nearby.
Suggested Recommendations	You can use wireless communication to call remote maintenance personnel in real-time.



Visualization of Equipment in Blind Spots

Customer Challenges	The operating status of equipment in blind spots from the field office cannot be confirmed, leading to delayed detection of processing completion or equipment stoppage, reducing productivity.
Suggested Recommendations	You can add signal lights linked to equipment in visible locations from the field office via wireless communication, enabling immediate action.



Signal Tower

LR (M12 Connector)



Φ60 mm	Continuous On	88dB	4 Buzzer Sounds	Indoor Use	Upright Mounting
Ambient Temperature -20°C~+50°C	CE / RoHS10	UKCA	UL	FCC	KC
IP65 (Direct mount)	IP54 (Pole mount)				



LR6-302W5BW-RYG

① ② ③ ④ ⑤ ⑥ ⑦

① Size	② Tiers	③ Rated Voltage	④ Mounting / Wiring	⑤ Buzzer	⑥ Body Color	⑦ LED Unit Color
6 = Φ60	= 0 tiers 1 = 1 tier 2 = 2 tiers 3 = 3 tiers 4 = 4 tiers 5 = 5 tiers	02 = 24V DC	W4 = Direct mounting (Mounting with M30 Nut) / M12 connector 4-pin W5 = Direct mounting (Mounting with M30 Nut) / M12 connector 5-pin W8 = Direct mounting (Mounting with M30 Nut) / M12 connector 8-pin L4 = Pole Mounting with L-bracket • M12 connector 4-pin L5 = Pole Mounting with L-bracket • M12 connector 5-pin L8 = Pole Mounting with L-bracket • M12 connector 8-pin	B = With Buzzer N = No Buzzer	W = Off-White K = Black	R = Red Y = Amber G = Green B = Blue C = White

4-pin Model

5-pin Model

8-pin Model

Model No.
Example

LR6-302W4NW-RYG
LR6-302L4NW-RYG

LR6-302W5BW-RYG
LR6-302L5BW-RYG

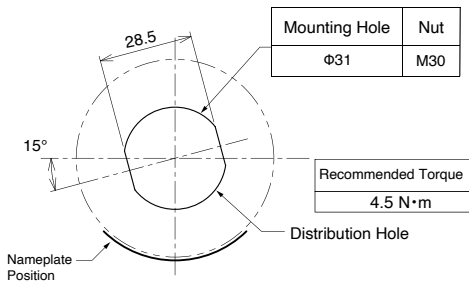
LR6-502W8BW-RYGBC
LR6-502L8BW-RYGBC

Product list [→](#)



Dimensions (Unit : mm)

■ Mounting Dimensional Drawing (M30x1.5 Installation)



■ Installation Figure

① Make mounting holes for the product.

② Pass the M12 cable through.

③ Fix the product.

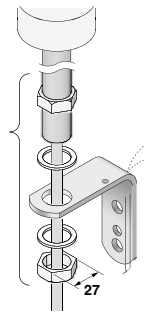
Recommended Torque

30 N·m

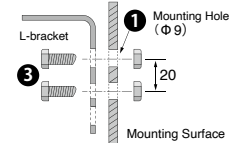
Point

When not using a L-bracket attachment, use a 22 to 23mm diameter hole

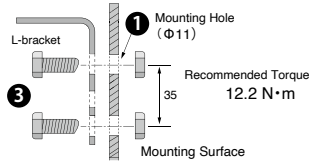
* For more details please refer to the installation manual



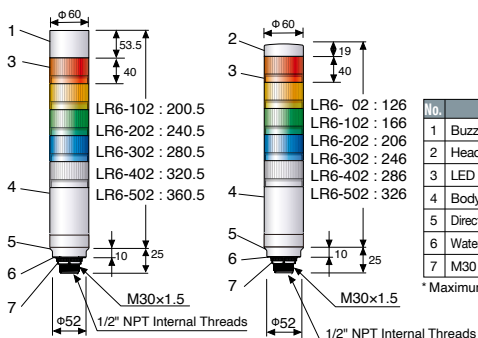
Measurements for M8 screws and nuts



Measurements for M10 screws and nuts



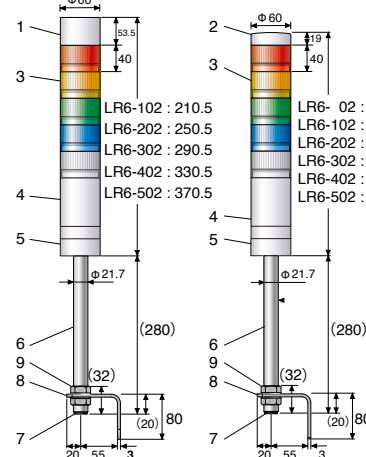
■ W4/W5/W8 Direct Mounting (Mounting with M30 Nut) / M12 Connector



No.	Name	Material
1	Buzzer Unit	PC
2	Head Cover	PC
3	LED Unit	PC
4	Body	PC
5	Direct Mount Bracket	PC
6	Waterproof Packing	Silicone Rubber
7	M30 Nut	PC

* Maximum Board thickness: 10

■ L4/L5/L8 Pole Mounting L-bracket / M12 Connector

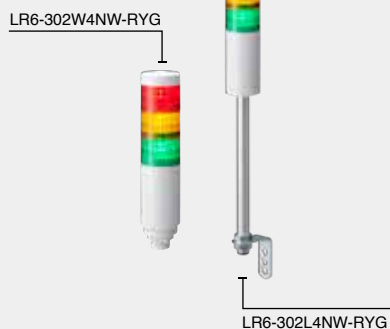


No.	Name	Material
1	Buzzer Unit	PC
2	Head Cover	PC
3	LED Unit	PC
4	Body	PC
5	Pole Bracket	PC
6	Pole	AL
7	Grommet	Silicone Sponge
8	L-bracket	Steel Plate
9	Hex Nuts M22	SUM

Wiring Example / M12 Connector Pin Layout

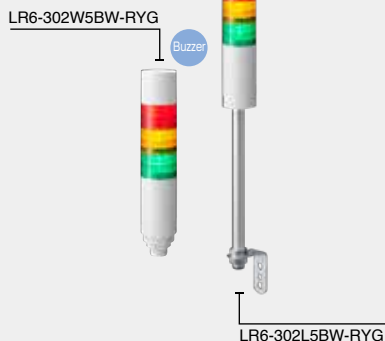
4-pin

Assembled Model



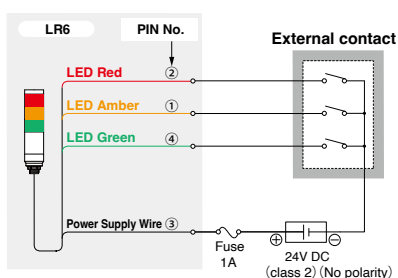
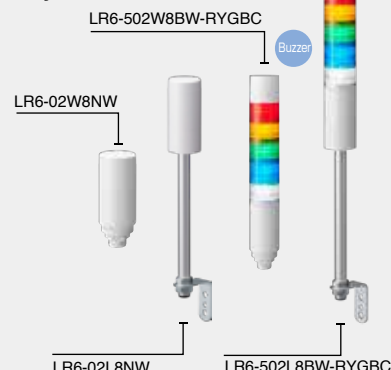
5-pin

Assembled Model

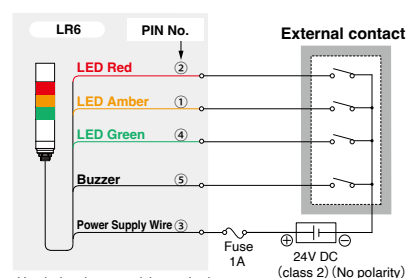
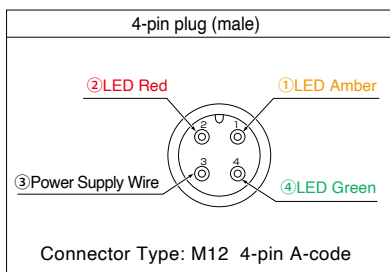


8-pin

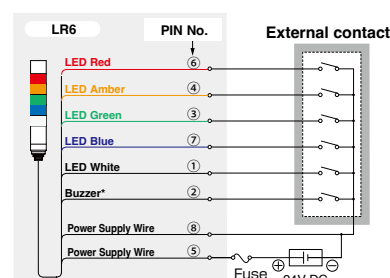
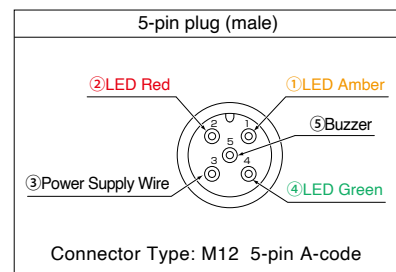
Body Unit / Assembled Model



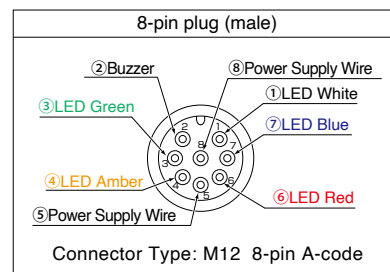
Buzzer Unit	WD Transmitter
Not Supported	Not Supported



Buzzer Unit	WD Transmitter
Supported	Not Supported



Buzzer Unit	WD Transmitter
Supported	Supported



Note

- For 4-pin and 5-pin models, standard blue, white, and multi-color LED units cannot be used. Please use custom blue and white LED units.
- Poles for these models are not sold separately.
- Cable not included with this product.

Specifications

Supported Transistors	NPN / PNP
Rated Voltage	24V DC
Rated Power Consumption	Max. 6.6W
Protection Rating	Direct mounting: IP65 / Pole mounting: IP54
Mounting Location / Mounting Direction	Indoor / Upright

Option

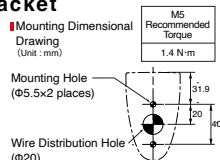
Connector with Cable

8-pin type, one-side connector
SZ-120-02 : 2m
SZ-120-05 : 5m
SZ-120-10 : 10m

*Cannot be used with 4-pin or 5-pin models

Wall Mount Bracket

Material: PC
SZK-005W(Off-White)
SZK-005K (Black)



Using Blue and White LED units with 4-pin or 5-pin models

For 3 lights: Red, Amber, Blue

Use the green wire to light the blue LED

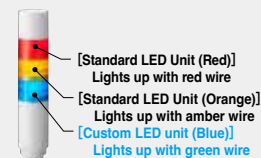
Assembled Model

LR6-202W5BW-RY

LED Unit (Special Model)

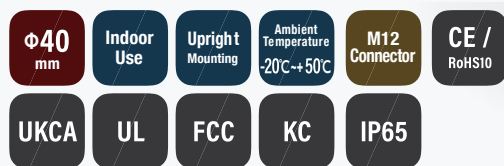
LR6-E-BG + B0962

LED Unit (Blue):B
LED Unit (White):C
Wire Colors for Standard LED Units:
R (Red) / A (Amber) / G (Green)



Signal Tower

LR4-WC



Model Number Configuration

(Ex.) **LR4-02WCNW**

Model
①
②
③
④
⑤

① **Size**
4 = Φ40

② **Rated Voltage**
02 = 24V DC

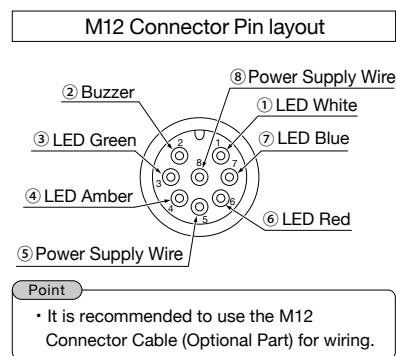
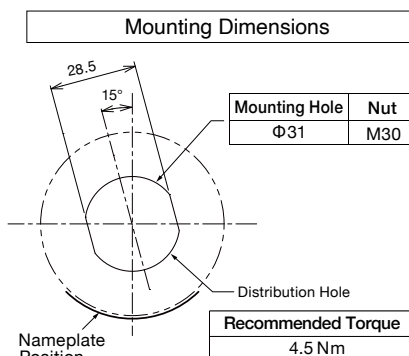
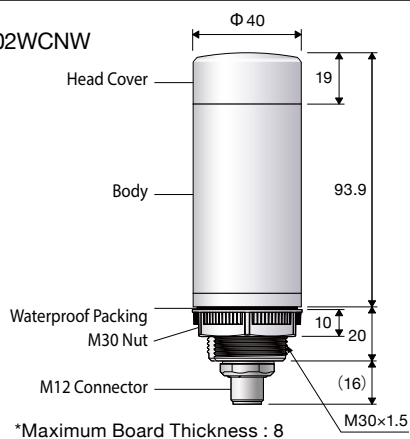
③ **Mounting / Wiring**
WC = Direct Mount / M12 Connector
(Mounting with M30 nut)

④ **Flashing / Buzzer**
N = No Flashing / Buzzer
B = With Flashing / Buzzer

⑤ **Body Color**
N = Off-white

Dimensions (mm)

LR4-02WCNW



Product List

Model Number	Size (mm)	Rated Voltage	Mounting	Wiring	Mass
LR4-02WCNW	Φ40	24V DC	Direct	M12 connector	0.09kg

Optional Parts

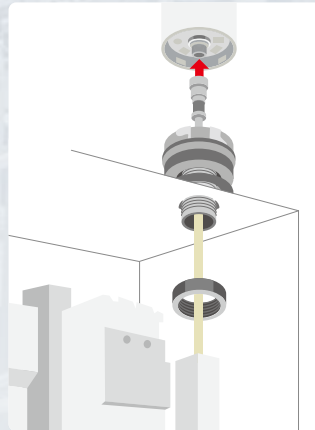
Product Name	Model Number
LED Unit	LR4-E-R/Y/G/B/C
Buzzer Unit	LR4-BW
LED Unit (Clear Lens)	LR4-E-RZ/YZ/GZ/BZ

Product Name	Model Number
Pole Bracket	SZP-005W
Pole	POLE-100/300/800A21+O0109

Simplified Wiring Significantly Reduces Installation Time

Reduce Wiring Workload During Equipment Installation.

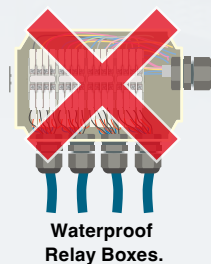
Save time and effort with a single M12 cable, making attachment and detachment quick and easy.



Reduced installation labor during equipment deployment.

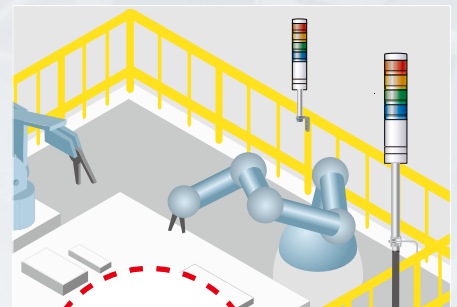
No Need for Relay Boxes and Maintenance.

Using a watertight M12 connector eliminates the need for relay boxes as well as making maintenance and rewiring more efficient.



Waterproof Relay Boxes.

Control Panel



M12 Connectors

Just one simple connection.

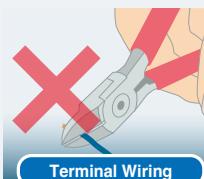
Prevent Incorrect Wiring.

Having only one cable to connect for installation and removal, the M12 ensures proper connection and no faulty wiring.

No time consuming preparations!



Terminal Crimp



Terminal Wiring



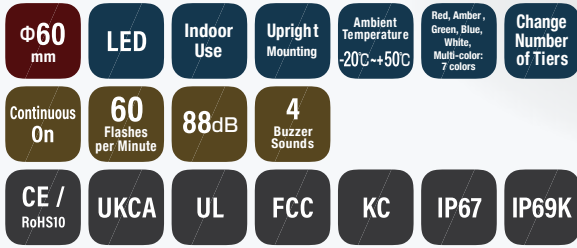
Screw Tightening

Simplified wiring!



Signal Tower (IP69K Rated)

LR6+FB295



LR6-WC+FB295



LR6-WM+FB295

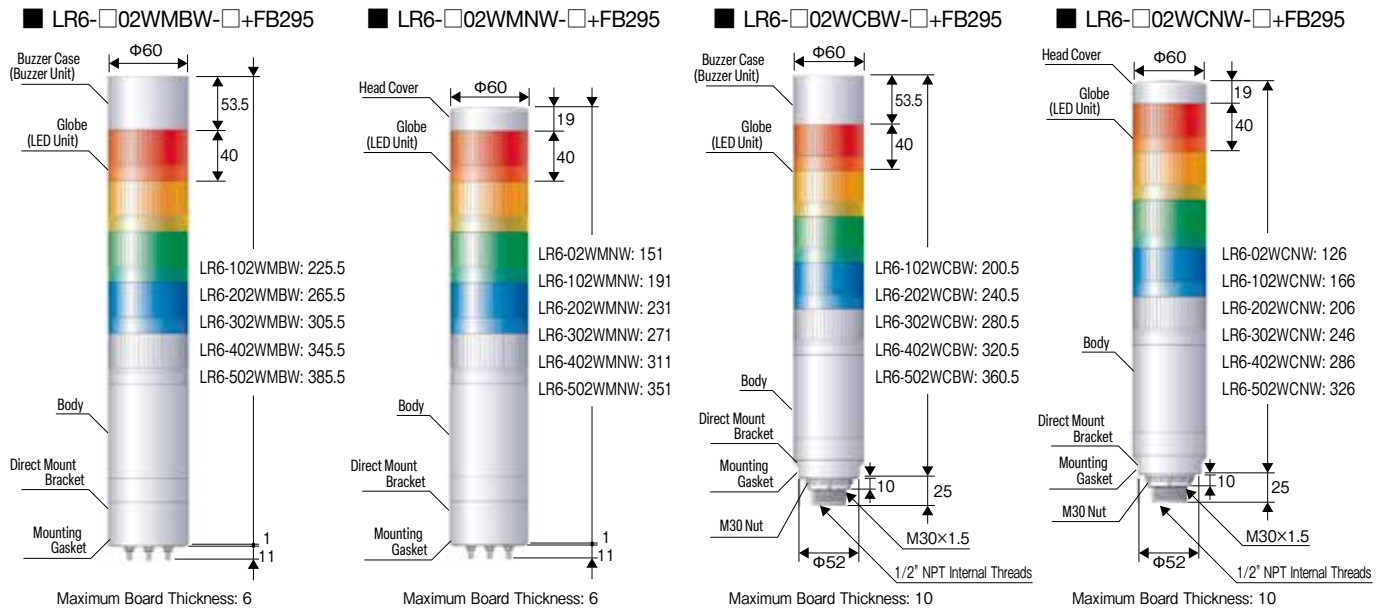
Model Number Configuration

LR6-502□□W-RYGB+C+FB295

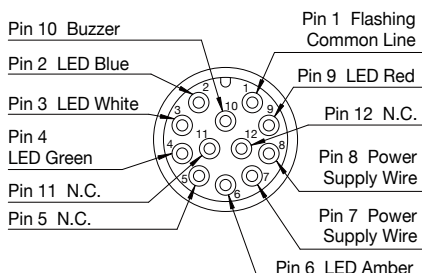
Model ① ② ③ ④ ⑤ ⑥ ⑦

① Size	② Number of Tiers	③ Rated Voltage	④ Mounting/Wiring	⑤ Flashing/Buzzer	⑥ Body Color	⑦ LED Unit Color
6 = Φ60	1 = 1 Tier 2 = 2 Tiers 3 = 3 Tiers 4 = 4 Tiers 5 = 5 Tiers	02 = 24V DC	WM = Direct Mount/M12 Connector (Mounting with 3 hexagon bolts) WC = Direct Mount/M12 Connector (Mounting with M30 nut)	N = No Flashing/Buzzer B = With Flashing/Buzzer	W = Off-white	R = Red Y = Amber G = Green B = Blue C = White

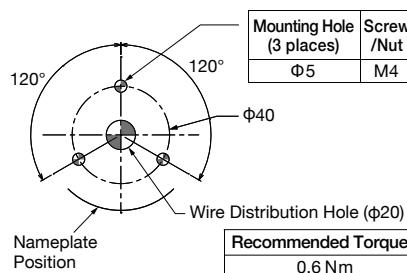
Dimensions (mm)



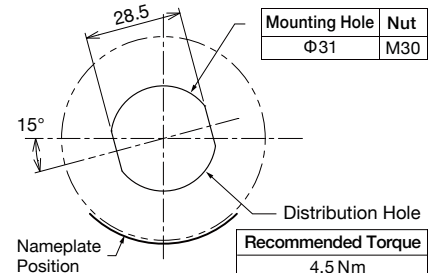
M12 Connector Pin layout



[WM] Mounting Dimensions



[WC] Mounting Dimensions



Application

Detecting and Measuring



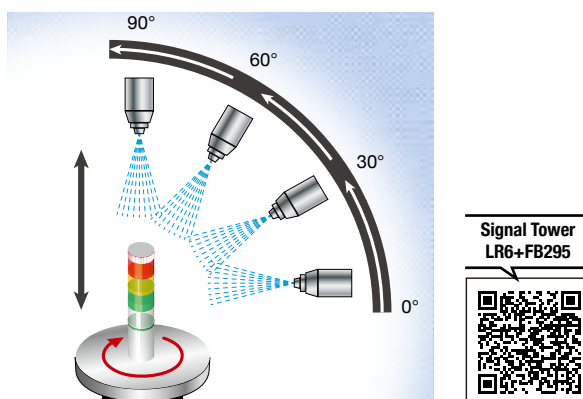
Beverage Processing



Pharmaceutical Equipment



IP69K Test Video



Product List Manual Assembly Unit

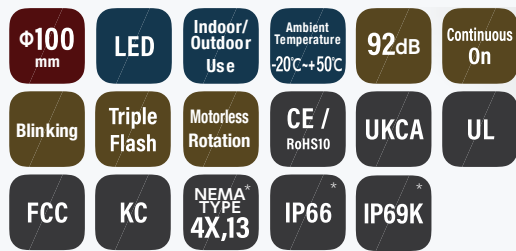


Model Number	Size(mm)	Mass
LR6-BW+FB295	Φ60	0.06kg

Model Number	Size(mm)	Luminous Color	Mass
LR6-E-R+FB295	Φ60	Red	0.06kg
LR6-E-Y+FB295	Φ60	Amber	0.06kg
LR6-E-G+FB295	Φ60	Green	0.06kg
LR6-E-B+FB295	Φ60	Blue	0.06kg
LR6-E-C+FB295	Φ60	White	0.06kg
LR6-E-MZ+FB295	Φ60	Multi-color 7 colors	0.06kg

Model Number	Size(mm)	Rated Voltage	Luminous Color	Mass
LR6-02WCNW+FB295	Φ60	24V DC	Direct Mount / M12 Connector (Mounting with M30 Nut)	0.17kg
LR6-02WMNW+FB295	Φ60	24V DC	Direct Mount / M12 Connector (Mounting with 3 Hexagon Bolts)	0.21kg

Signal Tower LR10



* In case of direct mounting



Standard Color Configuration



R/Y/G



RY/RG



RYG



RYGB



RYGBC

Tamper-proof Head Cover and Buzzer options available

Optional tamper-proof Head Cover and Buzzer Unit are available to prevent accidental assembled unit detachment.

Reuse the screws from the pre-assembled unit so only the top unit needs replacement.



Model Number Configuration

LR10-302WJNW-RYG

Model

①

②

③

④

⑤

⑥

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

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

- WM = Direct Mount/M12 Connector (only 02 type)

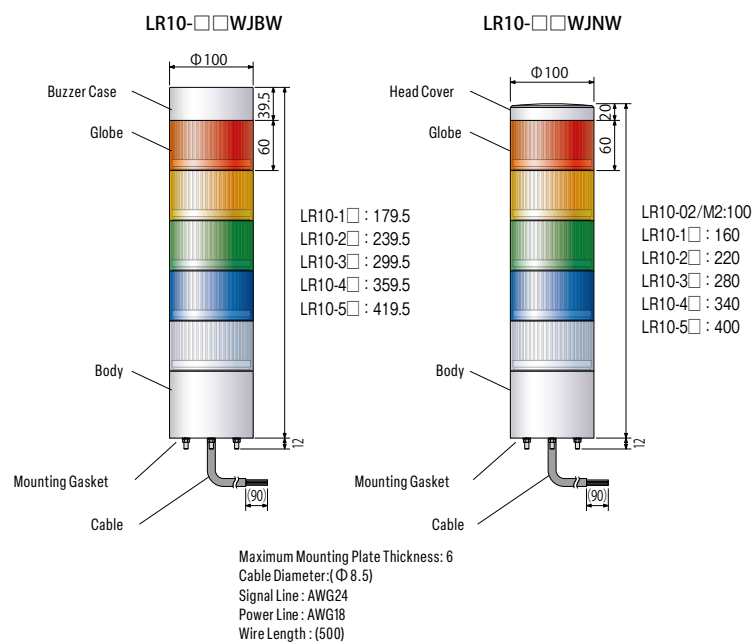
- B = With Buzzer
N = No Buzzer

- W = Off-white

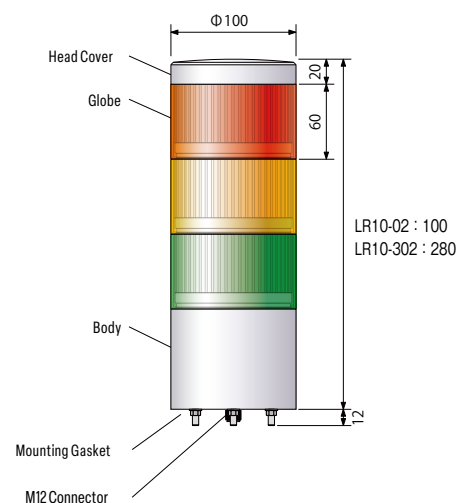
- R = Red
Y = Amber
G = Green
B = Blue
C = White

Dimensions (mm)

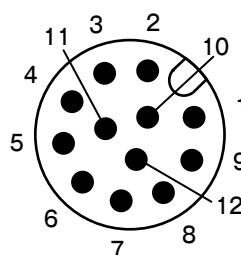
WJ Direct Mounting - Cable Type



WM Direct Mounting - M12 Connector Type

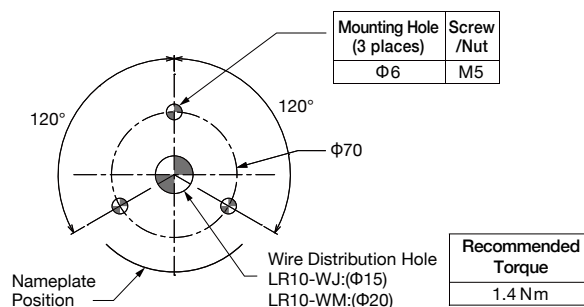


M12 Connector Pin layout



Pin No.	Function Name	Pin No.	Function Name
1	Blinking Common	7	Power Supply
2	LED Blue	8	Power Supply
3	LED White	9	LED Red
4	LED Green	10	Buzzer
5	Common	11	Pattern1
6	LED Amber	12	Pattern2

【WM】 Mounting Dimensions



Optional Parts

Product Name	Model Number
Waterproof Wall Mount Bracket	SZK-101
Wall Mount Bracket	SZK-102
Wall Mount Bracket Cover	SZK-104
Ceiling Mount Bracket	SZW-101

*SZK-101 cannot be used with the WM type.



M12 connector Reduces installation and replacement time.



Outdoor alerting



Status notification for control panels and industrial machinery



IP69K compliant.
Ideal for food and pharmaceutical plants

Select Alarm Unit for Flashing / Alarm Function

Product Name	Model Number
Head Cover Screw Lock Type	LR10-001
Screw for 1 Tier	LR10-S-1
Screw for 2 Tiers	LR10-S-2
Screw for 3 Tiers	LR10-S-3
Screw for 4 Tiers	LR10-S-4
Screw for 5 Tiers	LR10-S-5

Product Name	Size (mm)	Screw retention	Mass
LR10-BW	Φ100	-	0.096kg
LR10-BW-2	Φ100	✓	0.096kg

In addition to the tool-free LR10-BW unit, we also offer the LR10-BW-2 with anti-theft and anti-drop properties.



LR10-BW



LR10-BW-2



Select LED Unit(s)



Product Name	Size (mm)	Luminous Color	Mass
LR10-E-R	Φ100	Red	0.18kg
LR10-E-Y	Φ100	Amber	0.18kg
LR10-E-G	Φ100	Green	0.18kg
LR10-E-B	Φ100	Blue	0.18kg
LR10-E-C	Φ100	White	0.18kg

Select Body Unit

Product Name	Size (mm)	Rated Voltage	Mounting	Wiring	Mass
LR10-02WJNW	Φ100	24V DC	Direct Mount	Cable	0.64kg
LR10-M2WJNW	Φ100	100-240V AC	Direct Mount	Cable	0.66kg
LR10-02WMNW	Φ100	24V DC	Direct Mount	M12 Connector	0.59kg

How to set the blinking pattern:

Setup Table

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

How to choose the buzzer sound:

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.

External Contact Capacity

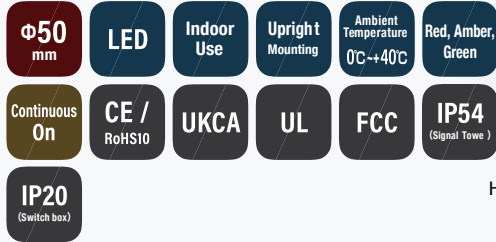
Signal Line

	Q2 24V DC	M2 100~240V AC
Current Capacity (Is)	10mA or more	10mA or more
Withstand Voltage (Vs)	30V or more	30V or more
Leakage Current (I)	0.1mA or less	0.1mA or less

Recommended Fuse

Fuse Rating	250V / 1A
-------------	-----------

Manual Control Signal Tower HSST



HSST-3M2-RYG



Clear-globe Type



Mounting Image

Assembly Process



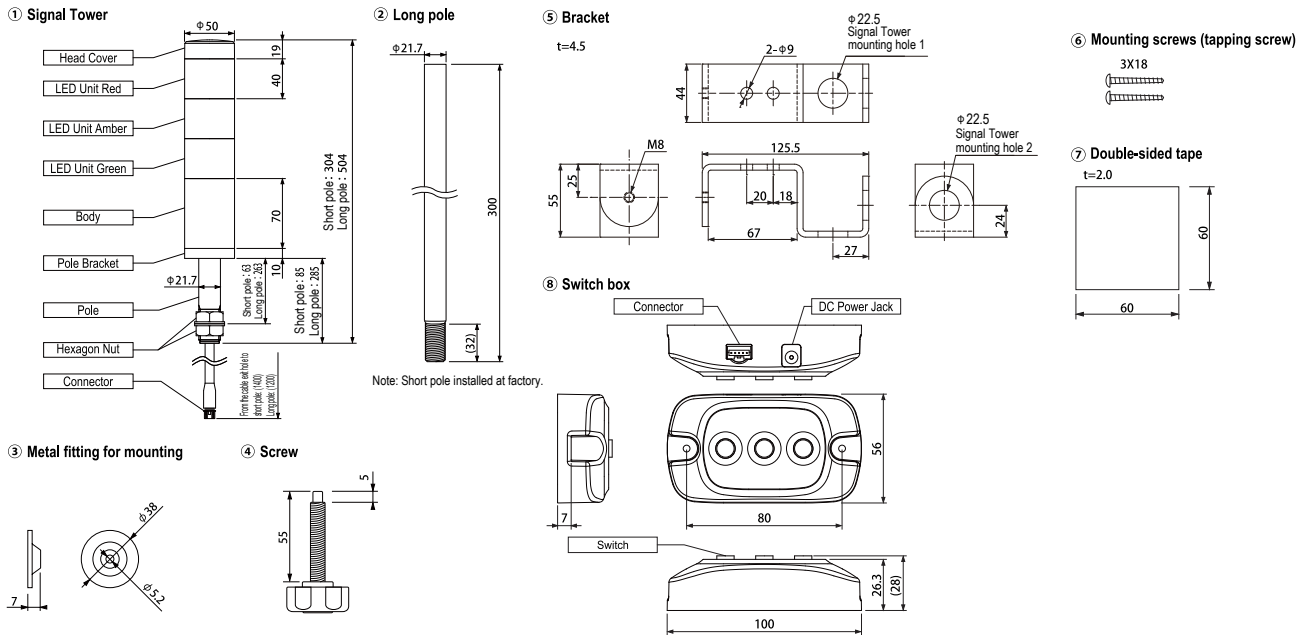
Assembly Line Lighting Display

- Problem Occurred
- Low Material Stock
- Need Assistance

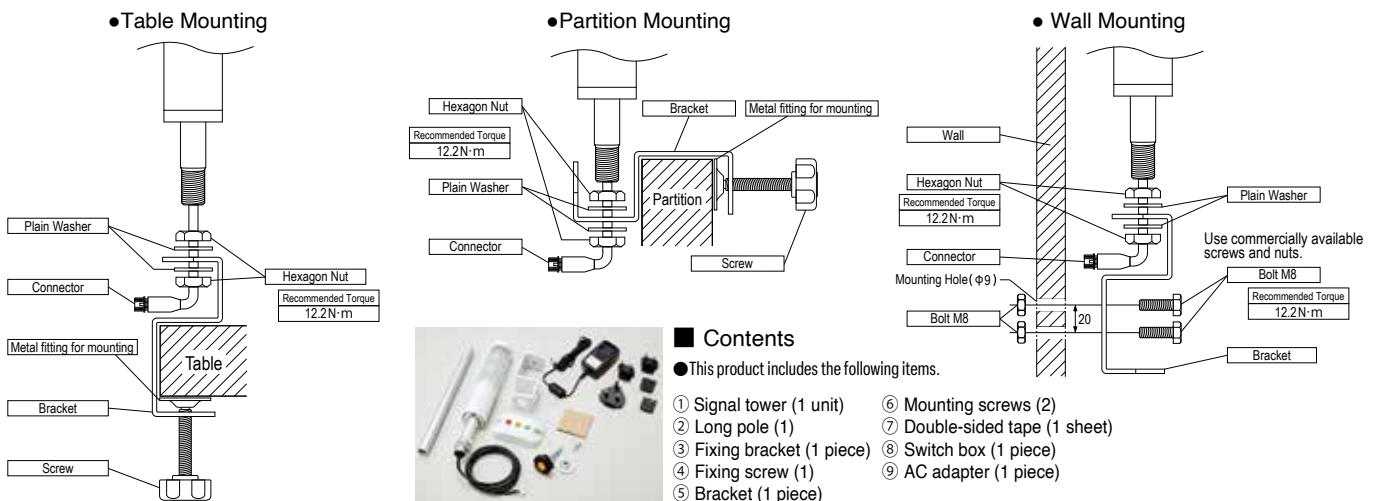
Product List

Model Number	Rated Voltage	Power Consumption	Mass
HSST-3M2-RYG	100~240V AC	4W	Signal Tower with short pole: 0.36kg; Signal Tower with long pole: 0.47kg; Bracket: 0.33kg; Switch box: 0.07kg, Mounting cap and screw: 0.05kg.

Dimensions (mm)

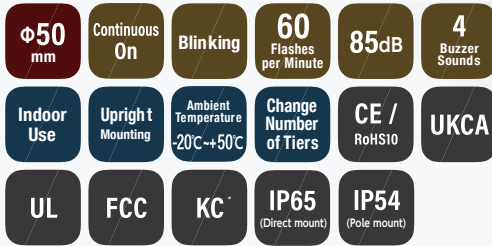


Mounting Method



Signal Tower

LR5-LAN



*Except SE/SI type



WD Compatible



Model Code

■ LR5-LAN Series

LR5-5 02 WE B W - RYGB

① ② ③ ④ ⑤ ⑥

■ LR5-LAN (EtherNet/IP) Series

LR5-5 02 WI B W - RYGB

① ② ③ ④ ⑤ ⑥

① Tiers

= 0 tiers
1 = 1 tier
2 = 2 tiers
3 = 3 tiers
4 = 4 tiers
5 = 5 tiers

② Rated Voltage

02 = 24V DC

③ Mounting / Communication Specification^{*1}

WE = Direct Mount / EtherNet Control
LE = Pole Mount with L-bracket / EtherNet Control^{*2}
SE = Short Pole Mount with L-bracket / EtherNet Control^{*2}
WI = Direct Mount / EtherNet/IP Control
LI = Pole Mount with L-bracket / EtherNet/IP Control
SI = Short Pole Mount with L-bracket / EtherNet/IP Control^{*2}

④ Buzzer

B = With Buzzer
N = No Buzzer

⑤ Body Color^{*1}

W = Off-White
K = Black
U = Silver

⑥ LED Color

R = Red B = Blue
Y = Amber C = White
G = Green

^{*1} Pre-assembled models for short-pole mount type and black or silver body type are available in 3-tiers only.
^{*2} The short pole mount type is not compliant with KC certification.

Optional Parts

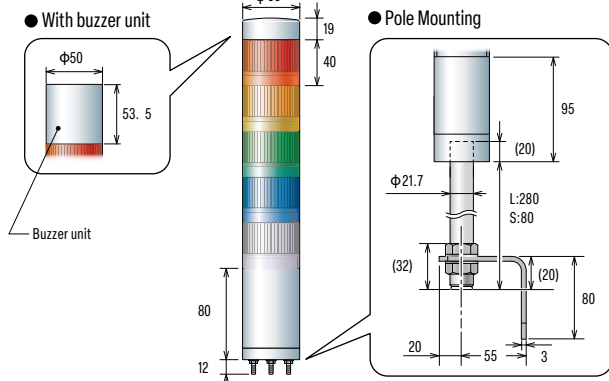
Product Name	Model Number	Direct Mount	Pole Mount
LED Unit	LR5-E-R / Y / G / B / C	✓	✓
Buzzer Unit	LR5-BW	✓	✓
Wireless Data Communication System Transmitter	WDT-5LR-Z2	✓	✓
Wall-Mount Bracket	SZK-002W	✓	-

Product Name	Model Number	Direct Mount	Pole Mount
Circular Bracket	SZW-001W	✓	-
Wall-Mount Bracket	SZK-001U	-	✓
Circular Bracket	SZ-010	-	✓
L-bracket	SZL-001	-	✓
AC Adapter	ADP-001C	✓	✓

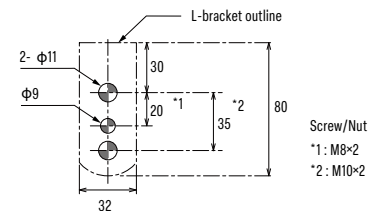
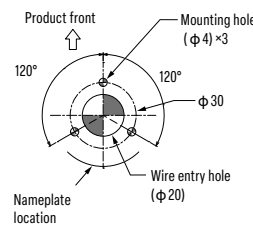
Specifications & Dimensions (Unit : mm)

■ LR5-□02WE, LR5-□02LE, LR5-□02SE

LR5-□02WI, LR5-□02LI, LR5-□02SI Series

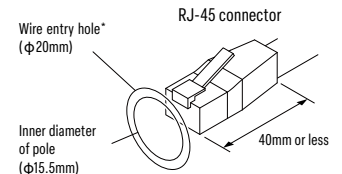


■ Mounting Dimensions



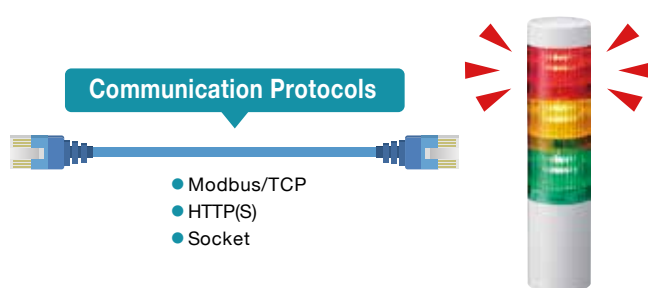
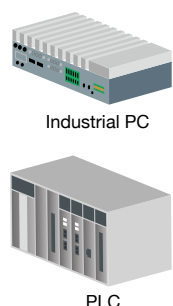
■ LAN Cable RJ-45 Connector Recommended Size

^{*When using the wall-mount bracket SZK-002W/U/K or SZK-001U, a LAN cable with a diameter of 15mm or less must be used.}



Model	LR5-□02□□□□ (LR5-LAN EtherNet/IP)	LR5-□02□□□□ (LR5-LAN)
Rated Voltage	24V DC (Polarity)	
Rated Current Consumption	Max : 290mA or less (with 5 LED tiers + buzzer)	
Operating Ambient Temperature / Humidity	-20°C to +50°C / 90% RH or less, no freezing, no condensation	
Protection Rating	Direct Mount : IP65 Pole Mount/Short Pole Mount : IP54	
Mass (Tolerance: ±10%)	Direct Mount : 100g + 40g x number of LED tiers + 50g (with buzzer) Pole Mount : 390g + 40g x number of LED tiers + 50g (with buzzer) Short Pole Mount : 300g + 40g x number of LED tiers + 50g (with buzzer)	
Network Communication Method	Ethernet (IEEE802.3 Conformity) 10BASE-T/100BASE-TX (Auto-MDI/MDI-X)	
Communication Protocol	EtherNet/IP	HTTP(S), Modbus/TCP, Socket

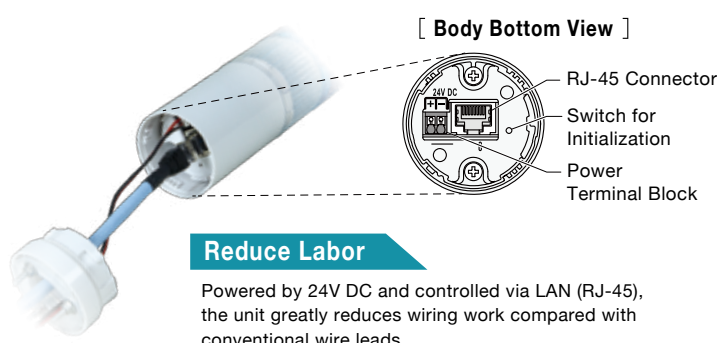
Direct LAN Control from Industrial PC/PLC Simple Configuration & Easy Notification Setup



LR5-LAN Compatible Function

Protocol	Socket	✓
	Modbus/TCP	✓
	HTTP(S)	✓
	EtherNet/IP	—
Monitoring	PING	✓
	Modbus/TCP	✓

Eliminating the need for an output board reduces both costs and maintenance effort by simplifying system components.



Easy Setup

With the optional ADP-001C, power can be supplied from an AC outlet. No 24V DC or extra installation required.

LR5-LAN EtherNet/IP Series

Integrated Control and Data for FA Sites EtherNet/IP Signal Towers : Meeting the Needs of the Factory Floor

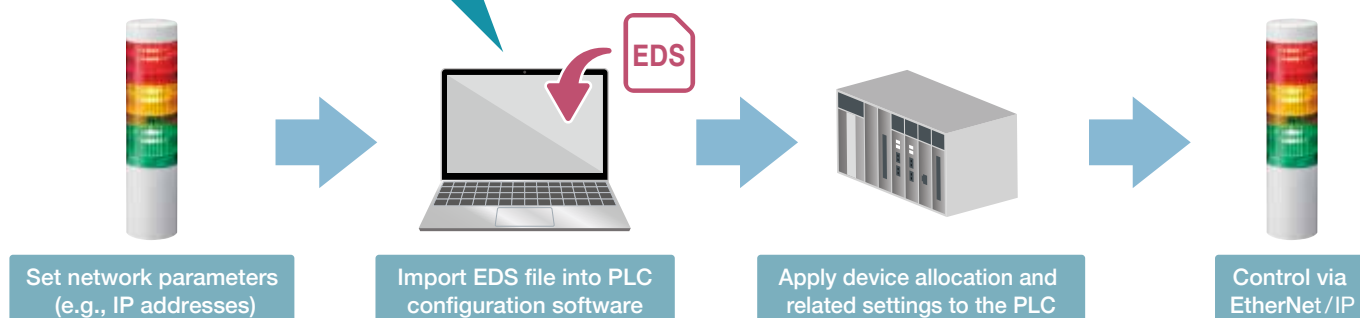
- Compatible with EtherNet/IP, widely used in industrial networks
- Significantly reduces wiring work
- LAN connection removes the need for I/O, lowering overall costs
- Enables remote diagnostics for status checks and data logging
- Ensures real-time performance with PLC control
- Allows flexible control setup through software

Easy Setup with EDS (Electronic Data Sheets) Files

Registering the EDS file (containing configuration definitions) in the PLC tool software allows easy setup and reduces programming workload.

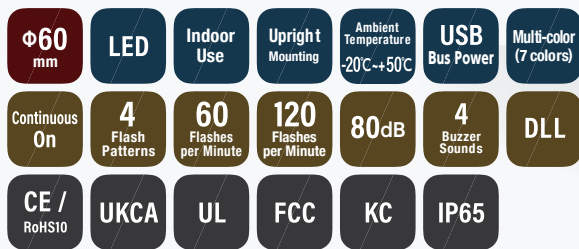
LR5-LAN EtherNet/IP Compatible Functions

Protocol	Socket	—
	Modbus/TCP	—
	HTTP(S)	—
	EtherNet/IP	✓
Monitoring	PING	✓
	Modbus/TCP	—



Signal Tower with USB

LR6-USB



Model Number Configuration

LR6- USBW-RYG

①

②

③

① Number of Tiers

None = Body Unit only
3 = 3 tiers

② Body Color

W = Off-white
K = Black

③ Luminous Color

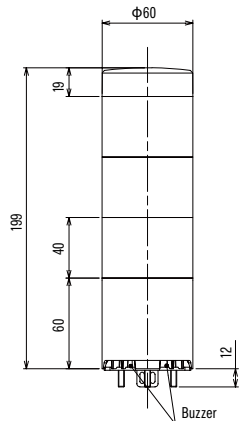
None = Body Unit only
RYG = Red / Amber / Green
from top to bottom

Optional Parts

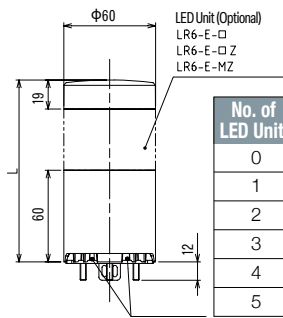
Product Name	Model Number
Upper Pole Bracket	SZP-004W
Mounting Bracket	SZW-002W
Wall Mount Bracket	SZK-003W
Pole Mounting Bracket	SZ-016A
Pole Mounting Bracket	SZ-010
Pole (100mm)	POLE-100A21+O0109
Pole (300mm)	POLE-300A21+O0109
Pole (800mm)	POLE-800A21+O0109

Dimensions(mm)

■ LR6-3USBW-RYG

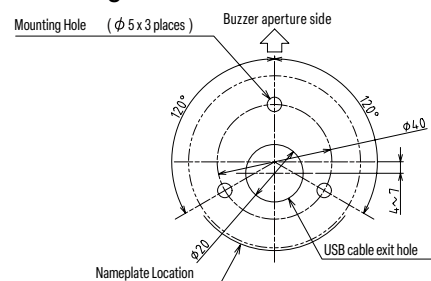


■ LR6-USBW

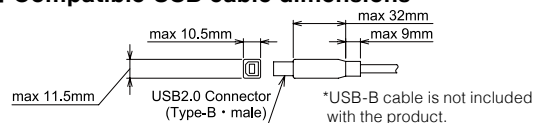


No. of LED Units	L [mm]
0	79
1	119
2	159
3	199
4	239
5	279

■ Mounting Dimensions



■ Compatible USB cable dimensions



*USB-B cable is not included with the product.

Product List

Model Number	Number of Tiers	Rated Voltage	Luminous Color	Power Consumption	Mass
LR6-3USBW-RYG / LR6-3USBK-RYG	3	5V DC (USB-bus power)	Red, Amber & Green	2.5W	0.32kg
LR6-USBW / LR6-USBK	-		-		0.14kg

Specifications

OS compatible with software library (DLLs)	Windows® 7, Windows® 8 (excluding RT), Windows® 8.1 (excluding Windows® 8.1RT), Windows® 10
Alarm Sounds	Select from 4 patterns and 13 pitches
Volume Control	About-10 dB when the internal switch is used.

Supports Both DLL and Protocol Control

- Custom programming made easy with our free software library (.DLL).
- Open architecture makes it possible to control the device with other operating systems such as Linux.
- Supports HID class. No exclusive drivers necessary.

Demo Software



Confirm actual operation of the LED unit and buzzer. For details, please see our website.

Uses a software library

- The use of a software library (downloadable from our website), makes controlling it simple.
- Download a demo application and sample code from our website.

No need for exclusive driver installations

- Installing an exclusive driver is unnecessary as it is supported in the HID device class.

Also supports wall mounting, pole mounting

- A variety of attachment options are available.



SZK-003W/K



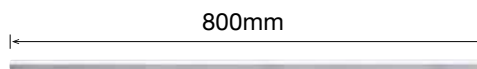
SZ-016A



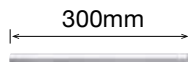
SZP-004W/K



SZ-010



800mm



300mm



100mm

POLE-100/300/800A21(K)



example

* For details of optional items etc., visit our website www.PATLITE.com

Supported LED Unit



LR6-E-R/Y/G/B/C



LR6-E-RZ/YZ/GZ/BZ



LR6-E-MZ

- The maximum number of LED unit attachments for LR6-E-□ and LR6-E-□Z, is five in total.
- No units other than the supported LED units are compatible.
- Two or more LED units of the same color for LR6-E-□ and LR6-E-□Z are not connectable.
- No other units are connectable for the LR6-E-MZ.
- The LR6-E-MZ offers two flashing patterns and the option for continuous lighting.

Best fit for the FA industry and stores.



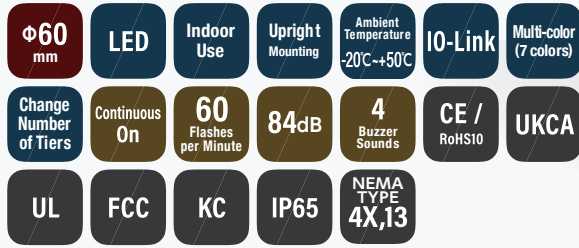
Status display of PC-controlled devices such as printers and inspection machines.



Self checkout machine

Signal Tower with IO-Link

LR6-IL



LR6-3ILWMNW

LR6-ILWMNW

LR6-ILWCNW

Model Number Configuration

LR6-3ILWMNW-RYG

Model

①

②

③

④

⑤

⑥

① Number of Tiers

None = Body Unit only
3 = 3 tiers

② Extended function

IL = IO-Link

③ Mounting/Wiring

WM = Direct Mount (3 hexagon bolts)/
M12 Connector

WC = 1/2" NPT Pipe or Direct Mount
(M30 Nut)/M12 Connector

④ Buzzer Unit*

N = None
* For Buzzer, use Buzzer
Unit LR6-BW

⑤ Body Color

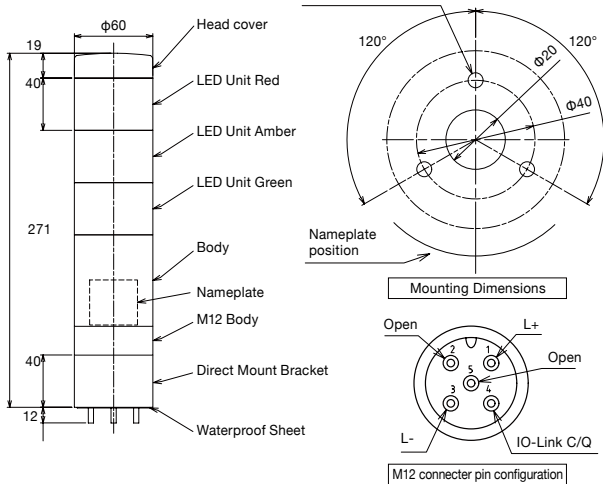
W = Off-white

⑥ Luminous Color

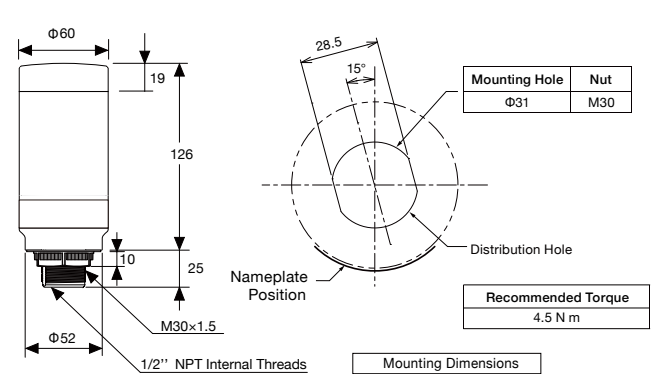
None = Body Unit only
R = Red
Y = Amber
G = Green
* From top to bottom

Dimensions (mm)

■ LR6-3ILWMNW-RYG



■ LR6-ILWCNW



Features



Pre-assembled model



Body unit (Direct mount)



Body unit (1/2" NPT pipe or direct mount)



M12 connector for easy connection



Select from a variety of LED colors and buzzer sounds

Specifications

Model	LR6-3ILWMNW-RYG Pre-assembled Model (Direct mount) 	LR6-ILWMNW Body Unit (Direct mount) 	LR6-ILWCNW Body Unit (1/2" NPT pipe or direct mount) 	
Size	φ60mm			
Rated Voltage	24V DC			
Mounting Location / Mounting Direction	Indoors, Upright			
Tier	LED Unit: Max. 5 tiers and one buzzer unit			
LED Color	Red / Amber / Green (Blue and White LED units also available)		N/A - LED units are sold separately	
LED Unit Modes	Continuous / Flashing			
Buzzer Sound Pressure	Typ. 84 dB (Use LR6-BW)			
Buzzer Sound Selection	4 sound types (Selectable) (Use LR6-BW)			
Protection Rating	IP65 NEMA TYPE 4X, 13			
Conformity Standards	● EMC Directive (EN 61000-6-4, EN 61000-6-2) ● RoHS Directive (EN IEC 63000) ● UL 508, CSA-C22.2 No. 14 ● FCC Part 15 Subpart B Class A ● KC (KN 61000-6-4, KN 61000-6-2)			
Connection	M12 connector 5 pins A code			

Options

Wall Mount Bracket
SZK-003W



Pole Bracket
SZ-016A



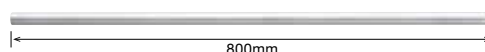
Upper Bracket
SZP-004W



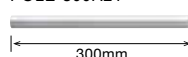
SZ-010



Pole
POLE-800A21



POLE-300A21



POLE-100A21

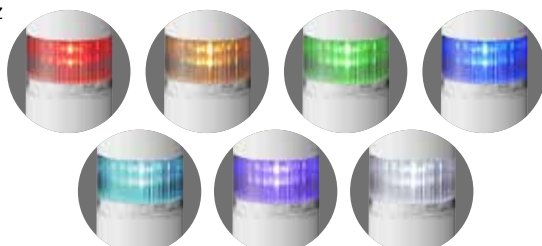


Compatible Units

Solid Color
LR6-E-R/Y/G/B/C



Multi-Color
LR6-E-MZ



Clear Globe
LR6-E-RZ/YZ/GZ/BZ



Buzzer Unit
LR6-BW



Wireless Data Acquisition System Transmitter
WDT-6LR-Z2



Cost-effective, retrofit solution for select PATLITE Signal Towers enabling wireless data acquisition and real-time monitoring.

Category	Subcategory	Model Code	Series	LR4	LR5	LR6	LR7	
			Detail Page	P.5	P.5	P.5	P.5	
Direct mount bracket	Wall mount Bracket	SZK-002W/U/K		✓ WJ	✓ WJ / WT / KT			
		SZK-003W/U/K				✓ WJ	✓ WJ / WT / KT	
		SZK-004W				✓ WJ	✓ WJ / WT / KT	
		SZK-005W/K						
		NH-WST2						
	Wall mount Bracket (Water proof)	SZK-101						
	Wall mount Bracket (Non-Water proof)	SZK-102						
	Wall mount Bracket (Cover for SZK-102)	SZK-104						
	Circular Bracket	SZW-001W		✓ WJ	✓ WJ / WT / KT	✓ WJ		
	Desktop Platform	SZW-002W		✓ 02WJ	✓ 01WJ / 02WJ / 02WT	✓ 02WJ		
		SZW-003W				✓ 02WJ		
		SZW-060W						
	Circular Bracket	SZW-101						
Aluminium pole (N)	Non-Threaded Poles	POLE22-*AN/ANK *AN=0100, 0300, 0500, 0800, 1000 ANK=0100, 0300, 0800		✓	✓	✓	✓ KT *2	
	Circular Bracket	SZP-001W/U/K		✓ ¹ PJ / QJ	✓ ¹ PJ / KT ²	✓ ¹ PJ / QJ	✓ ¹ KT ²	
		SZP-002U		✓ PJ / QJ	✓ PJ / KT ²	✓ PJ / QJ	✓ KT ²	
		SZP-003W/U/K		✓ ¹ PJ / QJ	✓ ¹ PJ / KT ²	✓ ¹ PJ / QJ	✓ ¹ KT ²	
	Folding Bracket	SZQ-001W		✓ ¹ PJ / QJ	✓ ¹ PJ / KT ²	✓ ¹ PJ / QJ	✓ ¹ KT ²	
Aluminium pole (T)	Threaded Poles	POLE22-*AT *=0100, 0300, 0500, 0800, 1000		✓	✓	✓	✓	
		SZP-917U		✓ LJ	✓ LJ	✓ LJ		
Aluminium pole (T), Original pole for LR6-L4/5/8 & LR5-LE/SE/LI/SI	L-bracket	SZL-001		✓ LJ	✓ LJ / KT ²	✓ LJ	✓ KT ²	
Aluminium pole (A21)	Pole	POLE-*A21+00109 *=100, 300, 800						
	Circular Bracket	SZ-016A						
	Pole bracket	SZP-004W/U/K						
SUS pole		22POLE-300SAT						
Aluminium pole (A21), SUS pole	Pole bracket	SZP-005W						
Aluminium pole (A21), Aluminium pole (N), (T)	Surface-mounting Bracket	SZ-010		✓ LJ / PJ / QJ	✓ LJ / PJ / KT ²	✓ LJ / PJ / QJ	✓ KT ²	
	Wall mount Bracket	SZK-001U* *Only with Aluminium pole (N), (T)		✓ LJ / PJ / QJ	✓ LJ / PJ / KT ²	✓ LJ / PJ / QJ	✓ KT ²	
NPT bracket		SZP-090		✓ WJ	✓ WJ / WT / KT			
		SZP-091				✓ WJ	✓ WJ / WT / KT	

LR6-WC	LR6-WM	LR4-WC	LR6-W4/5/8	LR6-L4/5/8 *Original pole	LR10	LR5-WE/WI	LR5-LE/SE/LI/SI *Original pole	LR6-USB	LR6-IL
P.5	P.5	P.19	P.17	P.17	P.23	P.27	P.27	P.29	P.31
						✓			
	✓							✓	✓ WM
✓			✓						
					✓ WJ				
					✓				
					✓ WJ				
						✓			
						✓		✓	✓ WM
								✓	✓ WM
					✓				
				✓			✓		
	✓	can be used with SZP-005 ^{*2}						✓	✓ WM
	can be used with SZP-004 ^{*2}	can be used with SZP-005 ^{*2}						✓	✓ WM
	✓							✓	✓ WM
		✓ [*] *with SZP-005W							
		✓							
	✓ can be used with SZP-004 and POLE-A21 ^{*2}	✓ can be used with SZP-005 and POLE-A21 ^{*2}					✓	✓	✓ WM
	✓ can be used with SZP-004 and POLE-A21 ^{*2}	✓ can be used with SZP-005 and POLE-A21 ^{*2}					✓		✓ WM

*1 only for 100/300mm POLE22-AN/ANK *2 Required pole is not included with KT/WM/WC

We support “Visualization” in all industries
and achieve improvement in manufacturing efficiency.

Product Categories



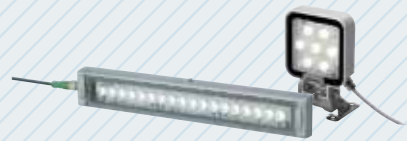
Signal Tower



Signal Beacon



Audible Alarm/
Voice Synthesizer



LED Lighting



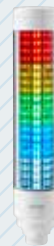
USB

LAN

LAN/USB/PoE



Wireless



IO-Link



IO-Link



Explosion Proof

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⚠ CAUTION

To ensure correct use of these products, read the “Instruction Manual” prior to use. Failure to follow all safeguards can result in fire, electric shock, or other accidents. Specifications are subject to change without notice.