

# ST45L / ST56L / ST80L Series

Universal LED tower light with a wide selection of audio and visual signaling options according to the application environment and intended use



## PRODUCT SPECIFICATION

STL Series

**Materials** Lens-AS, Housing-ABS, Pole-Al

**Ambient operating temperature** -30°C to + 60°C

**Volume**

Max.90dB at 1m

Max.85dB at 1m(Speaker output type, Based on WA-Ch1)

**Protection rating** Standard type-IP44, Built-in buzzer type-IP23

**Flashing rate** 60-80/min

**Compliant with RoHS directive**

- LED steady/flashing tower lights
- Long product lifetime of over 20,000hours with the application of a high intensity LED light source
- Can select from size selections of Ø45mm, Ø56mm, and Ø80mm to fit your sophisticated application needs
- A variety of Mounting bracket selections for the pole mount type to fit your location and mounting needs
- Built-in alarm available: Can select from 5 warning sounds, 5 alarms, 5 melodies to fit your application needs
- Customized color arrangement available (LED light distribution system and lens is integrated into a combined structure)
- Standard model and built-in buzzer model can be used by selecting the specifications suitable for the operating environment

### 1 Different sizes of LED steady/flashing lenses

- You can select from a variety of indicators depending on the working environment and application needs.

Model number	Lens diameter	Lens length
ST45(M)L	45mm	40mm
ST45(M)LF	45mm	40mm
ST56(M)EL	56mm	40mm
ST56(M)ELF	56mm	40mm
ST56(M)L	56mm	70mm
ST56(M)LF	56mm	70mm
ST80(M)EL	80mm	40mm
ST80(M)ELF	80mm	40mm
ST80(M)L	80mm	70mm
ST80(M)LF	80mm	70mm

### 2 Buzzer and sound patterns with 15 different tones

- Concrete messages can be clearly conveyed with the option of 15 types of audible signals.

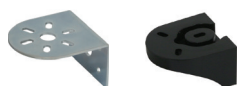
Main	Built-in sound	Channel	Sound
BZ	1 buzzer sound 2 buzzer sound	-	※ Customized 2 tone Buzzer available
WS	5 Warning sounds	Ch1 Ch2 Ch3 Ch4 Ch5	Fire.A-ANG Emergency Ambulance Machinery Fault High Expansion
WM	5 Melodies	Ch1 Ch2 Ch3 Ch4 Ch5	Sweet Home For Elise Cuckoo's Waltz Piano Sonata Turkish March
WA	5 Alarms	Ch1 Ch2 Ch3 Ch4 Ch5	Beep Intermittent Door Chime Phone Ring PI.PI.PI Short Tripping Beat

### 3 A variety of Mounting bracket selection

- Wall mount type model allows for contained and tidy wiring with no exposed wires
- A number of pole mounting stands are available for a variety of environments depending on location and mounting needs
- Specifically, the QL-type and SL-type tower lights can be applied in a variety of environments as it can be folded up to 90 degrees in the horizontal direction. These products can avoid damage due to external forces when movement of the equipment is required

#### ·Wall mount bracket

TWS45 TWS80 TWA45 TWA80



Steel

PC

#### ·Pole Mount Brackets

Standard LB18 LB24 LW18 LW24 QZ18 QZ24 SZ18 SZ24 QL18 QL24 SL18 SL24



Steel

Steel

ABS

ABS

Al

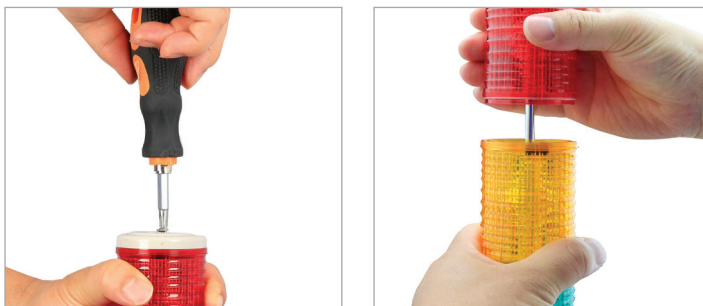
ABS

Al

※ Please refer to [Tower Light Mounting bracket] on this catalogue for detailed dimensions

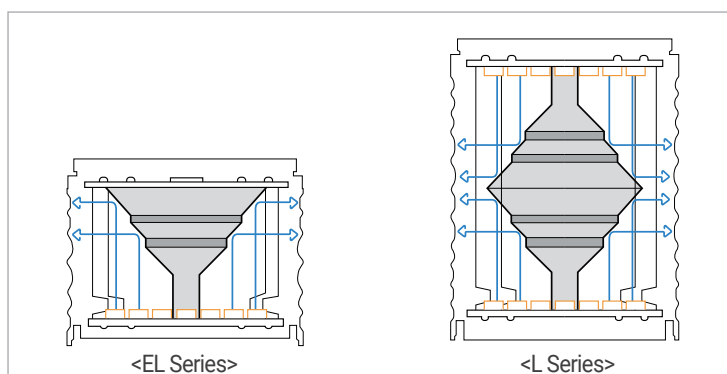
## Interchangeable Lens Concept

STL Series product allows for the lens arrangement to be adjusted after removing the bolt that secures the cover. If additional lenses are required for this product please reach out to us. ST45L / ST56L / ST80L series can be stacked up to 5 layers.









## Reflection System

- Qlight's special light distribution system with multi-tiered reflector provides linear and balanced light transmission to the lens for strong LED illumination throughout the product
- The special light diffusion structure inside the product creates the brightest signal light at the center of the lens



## References

Mount bracket	Sound	Buzzer and sound patterns	Lens dimension				
			Ø45mm H40mm	Ø56mm H40mm	Ø56mm H70mm	Ø80mm H40mm	Ø80mm H70mm
 Direct mount	No sound	Standard	ST45ML(F)	ST56MEL(F)	ST56ML(F)	ST80MEL(F)	ST80ML(F)
		Built-in buzzer	ST45ML(F)-BZ	ST56MEL(F)-BZ	ST56ML(F)-BZ	ST80MEL(F)-BZ	ST80ML(F)-BZ
		5 Warning sounds	ST45ML(F)-WS	ST56MEL(F)-WS	ST56ML(F)-WS	ST80MEL(F)-WS	ST80ML(F)-WS
		5 Melodies	ST45ML(F)-WM	ST56MEL(F)-WM	ST56ML(F)-WM	ST80MEL(F)-WM	ST80ML(F)-WM
		5 Alarms	ST45ML(F)-WA	ST56MEL(F)-WA	ST56ML(F)-WA	ST80MEL(F)-WA	ST80ML(F)-WA
 Pole mount	No sound	Standard	ST45L(F)	ST56EL(F)	ST56L(F)	ST80EL(F)	ST80L(F)
		Built-in buzzer	ST45L(F)-BZ	ST56EL(F)-BZ	ST56L(F)-BZ	ST80EL(F)-BZ	ST80L(F)-BZ
		5 Warning sounds	ST45L(F)-WS	ST56EL(F)-WS	ST56L(F)-WS	ST80EL(F)-WS	ST80L(F)-WS
		5 Melodies	ST45L(F)-WM	ST56EL(F)-WM	ST56L(F)-WM	ST80EL(F)-WM	ST80L(F)-WM
		5 Alarms	ST45L(F)-WA	ST56EL(F)-WA	ST56L(F)-WA	ST80EL(F)-WA	ST80L(F)-WA

# ST45ML / ST45L



ST45ML Series

Built-in buzzer output holes formed on the housing of the product



## ST45ML Ø45mm Direct mount, LED Steady/Flashing

Model number	Layers	Voltage	Certificates	Weight	Color
ST45ML Steady	1	AC/DC12V	CE	0.19kg	R-Red
ST45ML-BZ Steady w/built-in buzzer		AC/DC24V		0.19kg	
ST45ML-WS Steady/5 Warning sounds		AC110V		0.25kg	
ST45ML-WM Steady/5 Melodies		AC220V		0.25kg	
ST45ML-WA Steady/5 Alarms	2	AC/DC12V	UL	0.21kg	R-Red
ST45MLF Steady/Flashing		AC/DC24V		0.21kg	
ST45MLF-BZ Steady/Flashing w/built-in buzzer		AC110V		0.29kg	
ST45MLF-WS Steady/Flashing/5 Warning sounds		AC220V		0.29kg	
ST45MLF-WM Steady/Flashing/5 Melodies	3	AC/DC12V	UL	0.25kg	R-Red
ST45MLF-WA Steady/Flashing/5 Alarms		AC/DC24V		0.25kg	
ST45MLF Steady/Flashing		AC110V		0.34kg	
ST45MLF-BZ Steady/Flashing w/built-in buzzer		AC220V		0.34kg	
ST45MLF-WS Steady/Flashing/5 Warning sounds	4	AC/DC12V	UL	0.30kg	R-Red
ST45MLF-WM Steady/Flashing/5 Melodies		AC/DC24V		0.30kg	
ST45MLF-WA Steady/Flashing/5 Alarms		AC110V		0.38kg	
ST45MLF Steady/Flashing		AC220V		0.38kg	
ST45MLF-BZ Steady/Flashing w/built-in buzzer	5	AC/DC12V	UL	0.34kg	R-Red
ST45MLF-WS Steady/Flashing/5 Warning sounds		AC/DC24V		0.34kg	
ST45MLF-WM Steady/Flashing/5 Melodies		AC110V		0.42kg	
ST45MLF-WA Steady/Flashing/5 Alarms		AC220V		0.42kg	

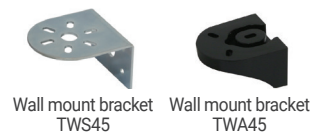
※ CE Compliant: DC12V, DC24V, UL Listed: DC24V(Except sound types)

### Light source/buzzer current(based on 1 layer)

Voltage	AC/DC12V	AC/DC24V	AC110V	AC220V
Light source current(1 layer)	0.040A	0.055A	0.045A	0.030A
Buzzer current	0.040A	0.075A	0.050A	0.035A
Signal sound current	0.200A(DC12V)	0.135A(DC24V)	0.050A	0.035A

### Customization

- AC type each layer power provided(same wiring DC steady)
- DC24V voltage UL listed product
- 2 buzzer sound types : Both prolonged (beep, beep) and staccato (beep, beep, beep)buzzer output available
- Wall mount bracket options : Bracket structure allows for threading through the bracket hole or into the wall



### Ordering Specifications

ST45ML	-	3	-	24	-	RAG
[Model number]		[Layers]		[Voltage]		[Color]
ST45ML		1-1 Layers		12-DC12V		R-Red
ST45ML-BZ		2-2 Layers		24-DC24V		A-Amber
ST45ML-WS		3-3 Layers		110-AC110V		G-Green
ST45ML-WM		4-4 Layers		220-AC220V		B-Blue
ST45ML-WA		5-5 Layers				W-White
ST45MLF						
ST45MLF-BZ						
ST45MLF-WS						
ST45MLF-WM						
ST45MLF-WA						



## ST45L Ø45mm Pole mount, LED Steady/Flashing

Model number	Layers	Voltage	Certificates	Weight	Color
ST45L	1	AC/DC12V	CE UL	0.35kg	● R-Red
Steady		AC/DC24V		0.35kg	
ST45L-BZ		AC110V		0.45kg	
Steady w/built-in buzzer		AC220V		0.45kg	
ST45L-WS	2	AC/DC12V		0.39kg	● R-Red ● G-Green
Steady/5 Warning sounds		AC/DC24V		0.39kg	
ST45L-WM		AC110V		0.49kg	
Steady/5 Melodies		AC220V		0.49kg	
ST45L-WA	3	AC/DC12V		0.44kg	● R-Red ● A-Amber ● G-Green
Steady/5 Alarms		AC/DC24V		0.44kg	
ST45LF		AC110V		0.54kg	
Steady/Flashing		AC220V		0.54kg	
ST45LF-BZ	4	AC/DC12V		0.48kg	● R-Red ● A-Amber ● G-Green ● B-Blue
Steady/Flashing w/built-in buzzer		AC/DC24V		0.48kg	
ST45LF-WS		AC110V		0.58kg	
Steady/Flashing/5 Warning sounds		AC220V		0.58kg	
ST45LF-WM	5	AC/DC12V		0.52kg	● R-Red ● A-Amber ● G-Green ● B-Blue ○ W-White
Steady/Flashing/5 Melodies		AC/DC24V		0.52kg	
ST45LF-WA		AC110V		0.62kg	
Steady/Flashing/5 Alarms		AC220V		0.62kg	

※ CE Compliant: DC12V, DC24V, UL Listed: DC24V(Except sound types)



ST45L Series

### Light source/buzzer current(based on 1 layer)

Voltage	AC/DC12V	AC/DC24V	AC110V	AC220V
Light source current(1 layer)	0.040A	0.055A	0.045A	0.030A
Buzzer current	0.040A	0.075A	0.050A	0.035A
Signal sound current	0.200A(DC12V)	0.135A(DC24V)	0.050A	0.035A

Built-in buzzer output holes formed on the housing of the product



### Mounting bracket

Standard	LB18	LW18	QZ18	SZ18	QL18	SL18
Steel	Steel	ABS	ABS	Al	ABS	Al

※ Please refer to [Tower Light Mounting bracket] on this catalogue for detailed dimensions

### Ordering Specifications

ST45L	-	3	-	24	-	RAG	-	LW18
[Model number]		[Layers]		[Voltage]		[Color]		[Bracket]
ST45L		1-1 Layers		12-DC12V		● R-Red		· None-Standard
ST45L-BZ		2-2 Layers		24-DC24V		● A-Amber		· Bracket
ST45L-WS		3-3 Layers		110-AC110V		● G-Green		-LB18 -LW18
ST45L-WM		4-4 Layers		220-AC220V		● B-Blue		-QZ18 -SZ18
ST45L-WA		5-5 Layers				○ W-White		-QL18 -SL18
ST45LF								
ST45LF-BZ								
ST45LF-WS								
ST45LF-WM								
ST45LF-WA								

### Customization

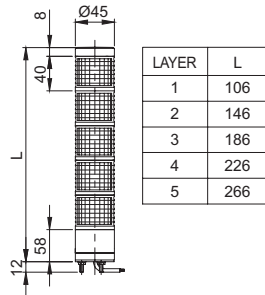
- 2 buzzer sound types : Both prolonged (beep, beep) and staccato (beep, beep, beep)buzzer output available
- AC type each layer power provided(same wiring DC steady)
- DC24V voltage UL listed product
- Customized pole length available

# ST45ML / ST45L

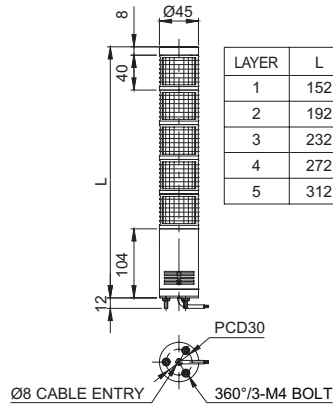
## Technical Diagram

Units : mm

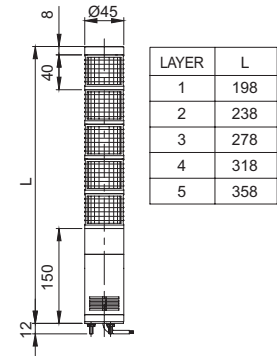
·ST45ML-AC/DC  
·ST45ML-BZ-DC  
·ST45MLF-DC



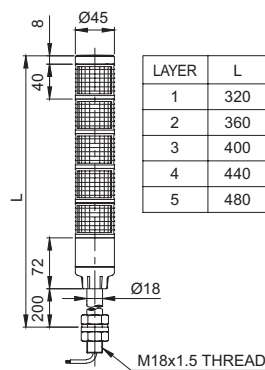
·ST45ML-BZ-AC  
·ST45MLF-AC  
·ST45MLF-BZ-DC



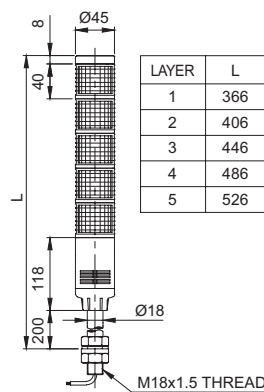
·ST45MLF-BZ-AC



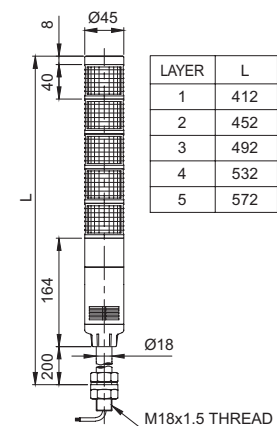
·ST45L-AC/DC  
·ST45L-BZ-DC  
·ST45LF-DC



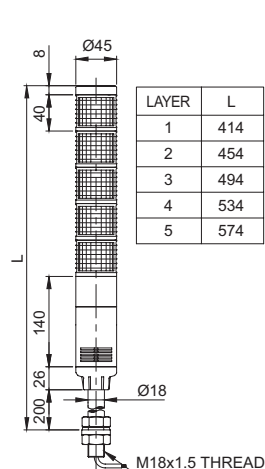
·ST45L-BZ-AC  
·ST45LF-AC  
·ST45LF-BZ-DC



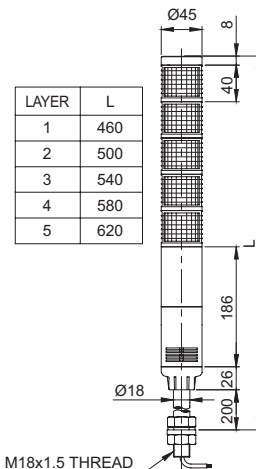
·ST45LF-BZ-AC



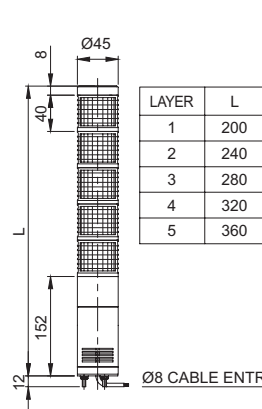
·ST45L-W□-DC  
·ST45LF-W□-DC



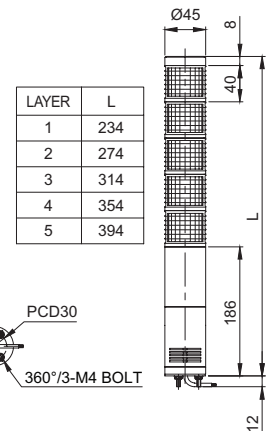
·ST45L-W□-AC  
·ST45LF-W□-AC



·ST45ML-W□-DC  
·ST45MLF-W□-DC



·ST45ML-W□-AC  
·ST45MLF-W□-AC



## Wiring Instructions

- DC steady type cable specification: External power line/External signal line UL1007 AWG22(0.3sq) 400mm
- AC steady, AC/DC steady/flashing type cable specification: External power line UL1015 AWG18(0.75sq) x 2C 400mm  
External signal line UL1007 AWG22(0.3sq) 400mm
- LED tower light can be wired by using transistor and External Contact

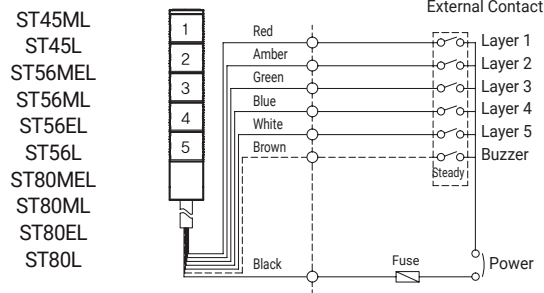
# ST45L / ST56L / ST80L Series

## Wiring Instructions

- In case of wiring with External Contacts, refer to the wiring diagrams below according to your product's type and voltage setting.
- Customized AC each layer power supply type wiring is same as DC steady type.

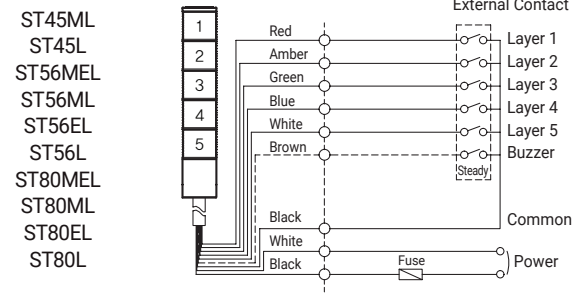
### Wiring Instructions

#### DC Steady

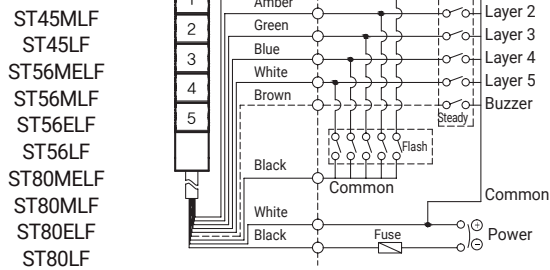


### Wiring Instructions

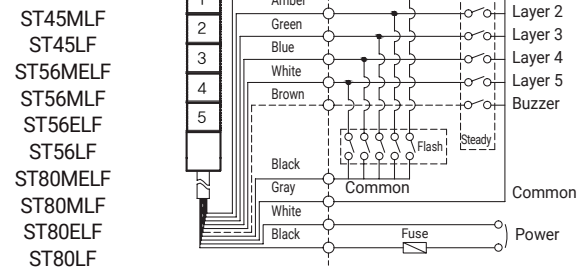
#### AC Steady



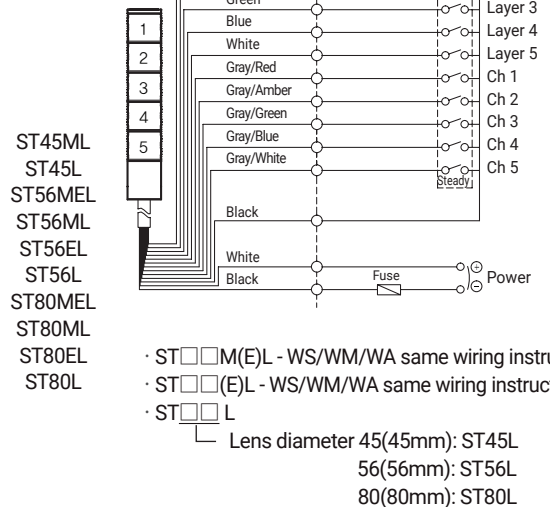
#### DC Steady/ Flashing



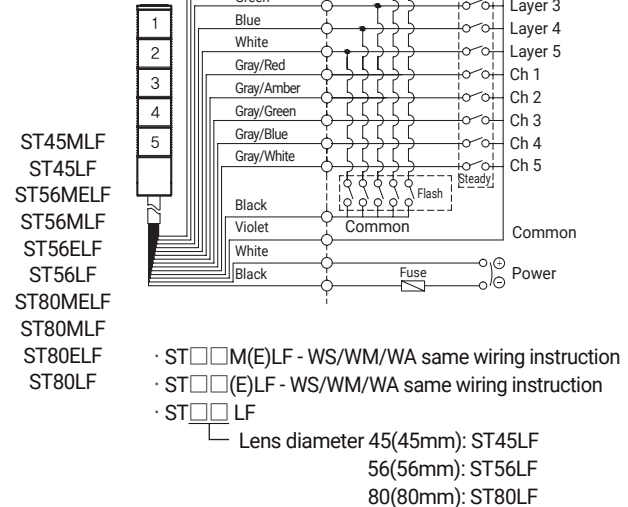
#### AC Steady/ Flashing



#### DC/AC Steady Built-in Signal Sound



#### DC/AC Steady/ Flashing Built-in Signal Sound



- DC steady type cable specification: External power line/External signal line UL1007 AWG22(0.3sq) 400mm
- AC steady, AC/DC steady/flashing type cable specification: External power line UL1015 AWG18(0.75sq) x 2C 400mm  
External signal line UL1007 AWG22(0.3sq) 400mm



# ST45L / ST56L / ST80L Series

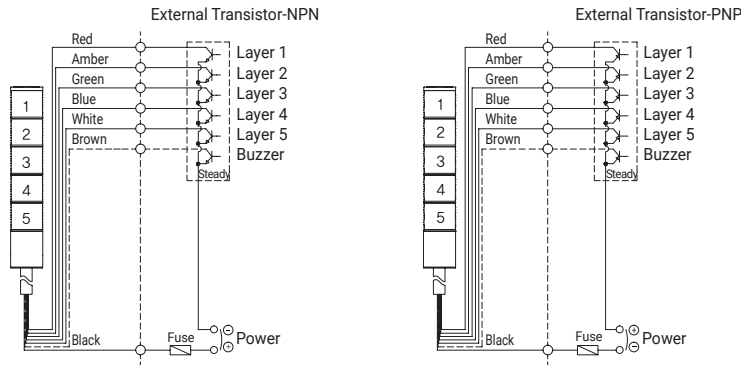
## Wiring Instructions

· In case of wiring by transistor, please make sure if it is NPN type or PNP type. Please carefully follow wiring instruction below.

### Wiring Instructions

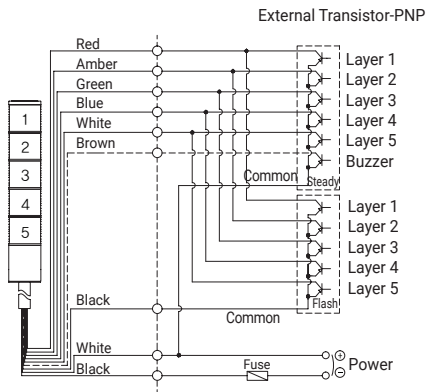
#### DC Steady

ST45ML  
ST45L  
ST56MEL  
ST56ML  
ST56EL  
ST56L  
ST80MEL  
ST80ML  
ST80EL  
ST80L



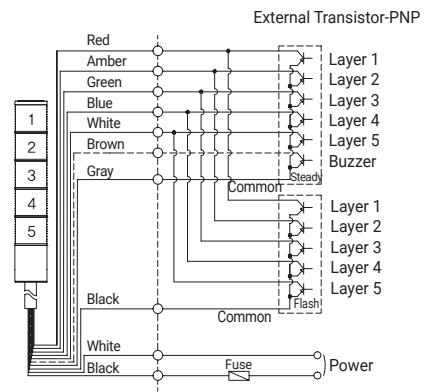
#### DC Steady/ Flashing

ST45MLF  
ST45LF  
ST56MLF  
ST56MLF  
ST56ELF  
ST56LF  
ST80MLF  
ST80MLF  
ST80ELF  
ST80LF



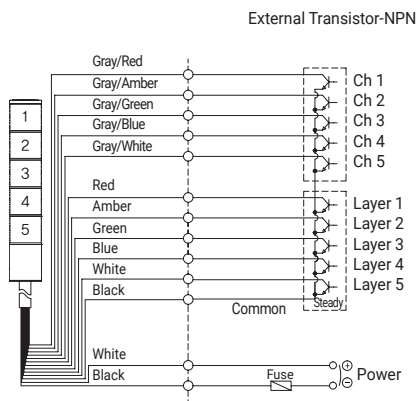
#### AC Steady/ Flashing

ST45MLF  
ST45LF  
ST56MLF  
ST56MLF  
ST56ELF  
ST56LF  
ST80MLF  
ST80MLF  
ST80ELF  
ST80LF



#### DC/AC Steady Built-in Signal Sound

ST45ML  
ST45L  
ST56MEL  
ST56ML  
ST56EL  
ST56L  
ST80MEL  
ST80ML  
ST80EL  
ST80L

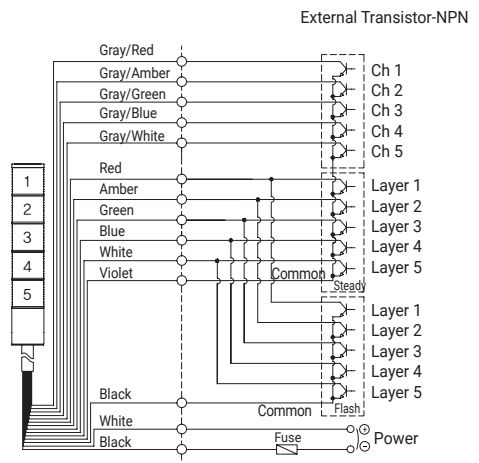


- ST□□M(E)L - WS/WM/WA same wiring instruction
- ST□□(E)L - WS/WM/WA same wiring instruction
- ST□□L

Lens diameter 45(45mm): ST45L  
56(56mm): ST56L  
80(80mm): ST80L

#### DC/AC Steady/ Flashing Built-in Signal Sound

ST45MLF  
ST45LF  
ST56MLF  
ST56MLF  
ST56ELF  
ST56LF  
ST80MLF  
ST80MLF  
ST80ELF  
ST80LF



- ST□□M(E)LF - WS/WM/WA same wiring instruction
- ST□□(E)LF - WS/WM/WA same wiring instruction
- ST□□LF

Lens diameter 45(45mm): ST45LF  
56(56mm): ST56LF  
80(80mm): ST80LF

· DC steady type cable specification: External power line/External signal line UL1007 AWG22(0.3sq) 400mm  
· AC steady, AC/DC steady/flashing type cable specification: External power line UL1015 AWG18(0.75sq) x 2C 400mm  
External signal line UL1007 AWG22(0.3sq) 400mm