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 height
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

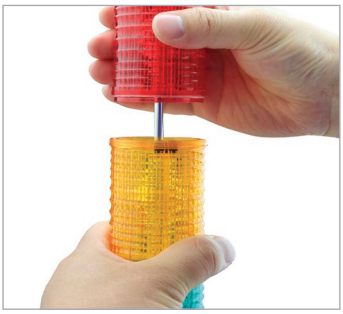
Standard	LB18 LB24	LW18 LW24	QZ18 QZ24	SZ18 SZ24	QL18 QL24	SL18 SL24	SLB370
							
Steel	Steel	ABS	ABS	Al	ABS	Al	PC, Steel

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

Interchangeable Lens Concept

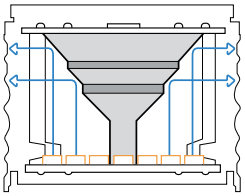
STL Series product allows for the lens arrangement to be adjusted after removing the bolt that secures the cover. If additional lenses are required for this product please reach out to us. ST45L / ST56L / ST80L series can be stacked up to 5 layers.



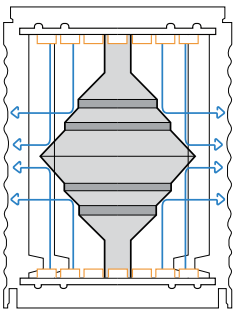


Reflection System

· 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



<EL Series>



<L Series>

References

Mount type	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)
	BUZZER	Built-in buzzer	ST45ML(F)-BZ	ST56MEL(F)-BZ	ST56ML(F)-BZ	ST80MEL(F)-BZ	ST80ML(F)-BZ
	SPK	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)
	BUZZER	Built-in buzzer	ST45L(F)-BZ	ST56EL(F)-BZ	ST56L(F)-BZ	ST80EL(F)-BZ	ST80L(F)-BZ
	SPK	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 ST45ML-BZ Steady w/built-in buzzer	1	AC/DC12V AC/DC24V AC110V AC220V		0.19kg 0.19kg 0.25kg 0.25kg	R-Red
ST45ML-WS Steady/5 Warning sounds ST45ML-WM Steady/5 Melodies	2	AC/DC12V AC/DC24V AC110V AC220V		0.21kg 0.21kg 0.29kg 0.29kg	R-Red G-Green
ST45ML-WA Steady/5 Alarms ST45MLF Steady/Flashing	3	AC/DC12V AC/DC24V AC110V AC220V	CE UL	0.25kg 0.25kg 0.34kg 0.34kg	R-Red A-Amber G-Green
ST45MLF-BZ Steady/Flashing w/built-in buzzer ST45MLF-WS Steady/Flashing/5 Warning sounds ST45MLF-WM Steady/Flashing/5 Melodies	4	AC/DC12V AC/DC24V AC110V AC220V		0.30kg 0.30kg 0.38kg 0.38kg	R-Red A-Amber G-Green B-Blue
ST45MLF-WA Steady/Flashing/5 Alarms	5	AC/DC12V AC/DC24V AC110V AC220V		0.34kg 0.34kg 0.42kg 0.42kg	R-Red A-Amber G-Green B-Blue W-White

※ 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)	40mA	55mA	45mA	30mA
Buzzer current	40mA	75mA	50mA	35mA
Signal sound current	200mA(DC12V)	135mA(DC24V)	50mA	35mA

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



Wall mount bracket TWS45



Wall mount bracket TWA45

Ordering Specification

ST45ML	-	3	-	24	-	RAG

[Model number]	[Layers]	[Voltage]	[Color]
ST45ML	1-1 Layer	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			

IP23 IP44 +60℃ -30℃ BUZZER 90dB SPK 85dB NPN PNP RoHS

ST45L Ø45mm Pole mount, LED Steady/Flashing

Model number	Layers	Voltage	Certificates	Weight	Color
ST45L Steady ST45L-BZ Steady w/built-in buzzer	1	AC/DC12V AC/DC24V AC110V AC220V	CE UL	0.35kg 0.35kg 0.45kg 0.45kg	R-Red
ST45L-WS Steady/5 Warning sounds ST45L-WM Steady/5 Melodies	2	AC/DC12V AC/DC24V AC110V AC220V		0.39kg 0.39kg 0.49kg 0.49kg	R-Red G-Green
ST45L-WA Steady/5 AlarmsST45LF Steady/Flashing	3	AC/DC12V AC/DC24V AC110V AC220V		0.44kg 0.44kg 0.54kg 0.54kg	R-Red A-Amber G-Green
ST45LF-BZ Steady/Flashing w/built-in buzzer ST45LF-WS Steady/Flashing/5 Warning sounds ST45LF-WM Steady/Flashing/5 Melodies	4	AC/DC12V AC/DC24V AC110V AC220V		0.48kg 0.48kg 0.58kg 0.58kg	R-Red A-Amber G-Green B-Blue
ST45LF-WA Steady/Flashing/5 Alarms	5	AC/DC12V AC/DC24V AC110V AC220V		0.52kg 0.52kg 0.62kg 0.62kg	R-Red A-Amber G-Green B-Blue W-White

※ 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)	40mA	55mA	45mA	30mA
Buzzer current	40mA	75mA	50mA	35mA
Signal sound current	200mA(DC12V)	135mA(DC24V)	50mA	35mA

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



Mounting bracket

Standard	LB18	LW18	QZ18	SZ18	QL18	SL18	SLB370
							
Steel	Steel	ABS	ABS	Al	ABS	Al	PC, Steel

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

Ordering Specification

ST45L	-	3	-	24	-	RAG	-	LW18

[Model number]	[Layers]	[Voltage]	[Color]	[Bracket]
ST45L ST45L-BZ ST45L-WS ST45L-WM ST45L-WA ST45LF ST45LF-BZ ST45LF-WS ST45LF-WM ST45LF-WA	1-1 Layer 2-2 Layers 3-3 Layers 4-4 Layers 5-5 Layers	12-DC12V 24-DC24V 110-AC110V 220-AC220V	R-Red A-Amber G-Green B-Blue W-White	· None-Standard · Bracket -LB18 -LW18 -QZ18 -SZ18 -QL18 -SL18 -SLB370

Customization

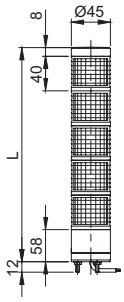
- 2 buzzer sound types : Both prolonged (beep, beep) and staccato (beep, beep, beep)buzzer output available
- AC type each layer power provided(same wiring DC steady)
- DC24V voltage UL listed product
- Customized pole length available

ST45ML / ST45L

Technical Diagram

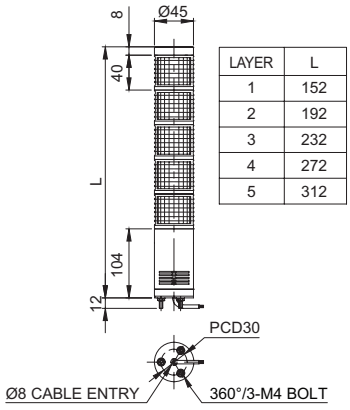
Units : mm

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



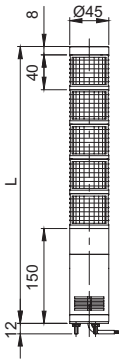
LAYER	L
1	106
2	146
3	186
4	226
5	266

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



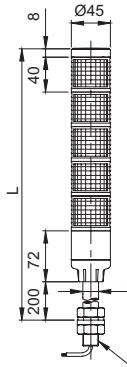
LAYER	L
1	152
2	192
3	232
4	272
5	312

·ST45MLF-BZ-AC



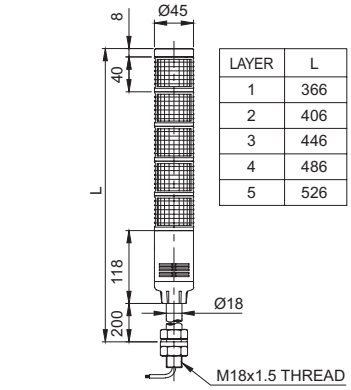
LAYER	L
1	198
2	238
3	278
4	318
5	358

·ST45L-AC/DC
·ST45L-BZ-DC
·ST45LF-DC



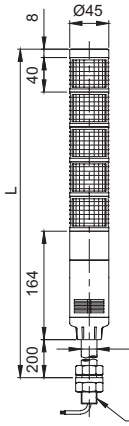
LAYER	L
1	320
2	360
3	400
4	440
5	480

·ST45L-BZ-AC
·ST45LF-AC
·ST45LF-BZ-DC



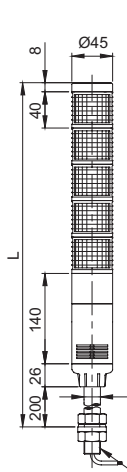
LAYER	L
1	366
2	406
3	446
4	486
5	526

·ST45LF-BZ-AC



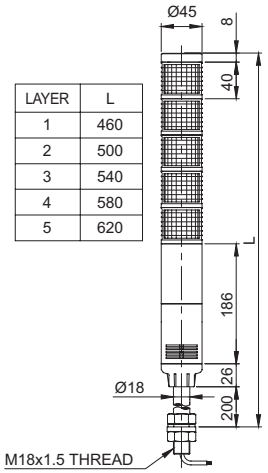
LAYER	L
1	412
2	452
3	492
4	532
5	572

·ST45L-W□-DC
·ST45LF-W□-DC



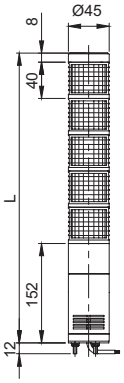
LAYER	L
1	414
2	454
3	494
4	534
5	574

·ST45L-W□-AC
·ST45LF-W□-AC



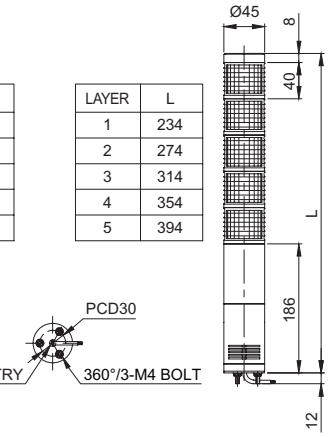
LAYER	L
1	460
2	500
3	540
4	580
5	620

·ST45ML-W□-DC
·ST45MLF-W□-DC



LAYER	L
1	200
2	240
3	280
4	320
5	360

·ST45ML-W□-AC
·ST45MLF-W□-AC



LAYER	L
1	234
2	274
3	314
4	354
5	394

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

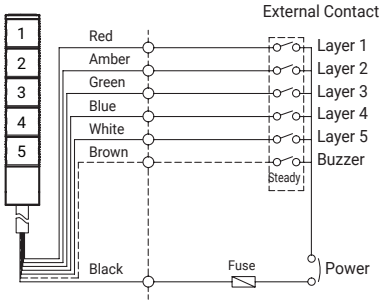
ST45L / ST56L / ST80L Series

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.

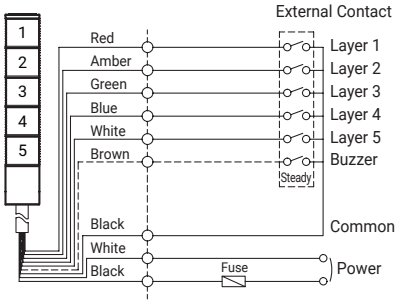
DC Steady

ST45ML
ST45L
ST56MEL
ST56ML
ST56EL
ST56L
ST80MEL
ST80ML
ST80EL
ST80L



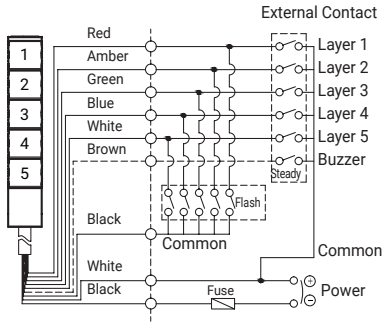
AC Steady

ST45ML
ST45L
ST56MEL
ST56ML
ST56EL
ST56L
ST80MEL
ST80ML
ST80EL
ST80L



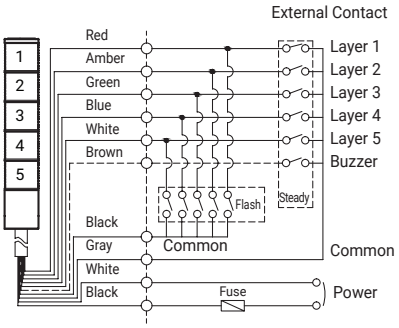
DC Steady/ Flashing

ST45MLF
ST45LF
ST56MELF
ST56MLF
ST56ELF
ST56LF
ST80MELF
ST80MLF
ST80ELF
ST80LF



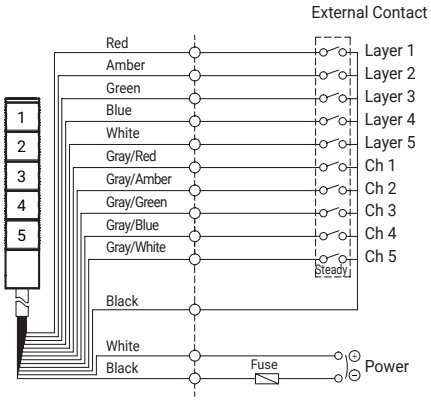
AC Steady/ Flashing

ST45MLF
ST45LF
ST56MELF
ST56MLF
ST56ELF
ST56LF
ST80MELF
ST80MLF
ST80ELF
ST80LF



DC/AC Steady Built-in Signal Sound

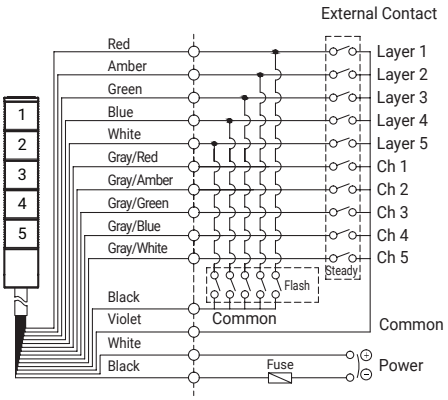
ST45ML
ST45L
ST56MEL
ST56ML
ST56EL
ST56L
ST80MEL
ST80ML
ST80EL
ST80L



· 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
ST56MELF
ST56MLF
ST56ELF
ST56LF
ST80MELF
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

ST45L / ST56L / ST80L Series

Wiring Instructions

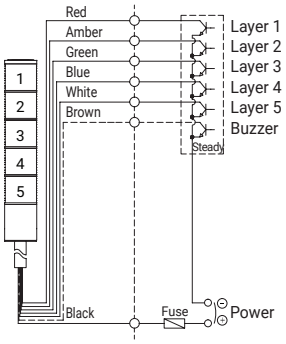
· In case of wiring by transistor, please make sure if it is NPN type or PNP type. Please carefully follow wiring instruction below.

Wiring Instructions

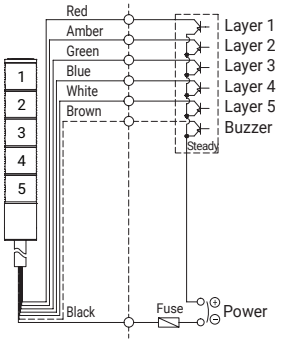
DC Steady

ST45ML
ST45L
ST56MEL
ST56ML
ST56EL
ST56L
ST80MEL
ST80ML
ST80EL
ST80L

External Transistor-NPN



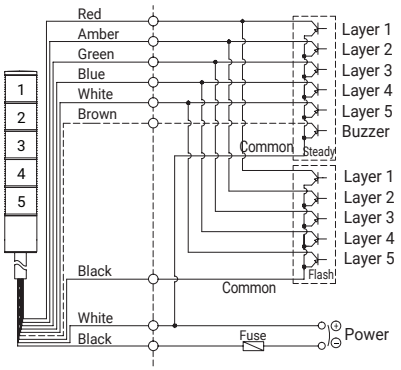
External Transistor-PNP



DC Steady/ Flashing

ST45MLF
ST45LF
ST56MELF
ST56MLF
ST56ELF
ST56LF
ST80MELF
ST80MLF
ST80ELF
ST80LF

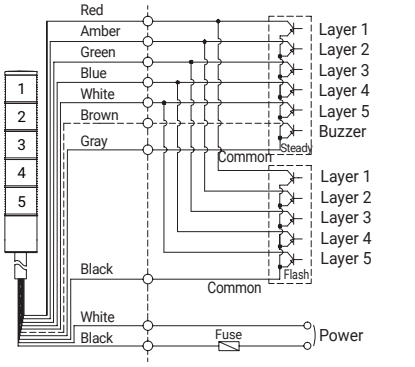
External Transistor-PNP



AC Steady/ Flashing

ST45MLF
ST45LF
ST56MELF
ST56MLF
ST56ELF
ST56LF
ST80MELF
ST80MLF
ST80ELF
ST80LF

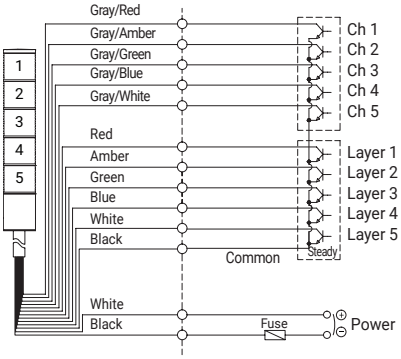
External Transistor-PNP



DC/AC Steady Built-in Signal Sound

ST45ML
ST45L
ST56MEL
ST56ML
ST56EL
ST56L
ST80MEL
ST80ML
ST80EL
ST80L

External Transistor-NPN

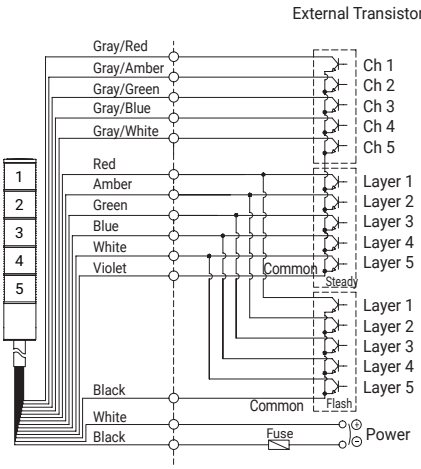


· ST□□M(E)L - WS/WM/WA same wiring instruction
· ST□□(E)L - WS/WM/WA same wiring instruction
· ST□□ L
└ Lens diameter 45(45mm): ST45L
56(56mm): ST56L
80(80mm): ST80L

DC/AC Steady/ Flashing Built-in Signal Sound

ST45MLF
ST45LF
ST56MELF
ST56MLF
ST56ELF
ST56LF
ST80MELF
ST80MLF
ST80ELF
ST80LF

External Transistor-NPN



· 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 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