

ST45L/ ST56L/ ST80L series

LED Steady/Flashing Tower Lights

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

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 patterns
BZ	1 buzzer sound 2 buzzer sounds		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
- QLA type offers an easy to use angle adjustment button on the side for angle intervals of 45 to 90 degrees. No additional tools necessary



Mounting Bracket Options

• Wall Mount Brackets

TWS45 TWS80	TWA45 TWA80
Steel	PC

• Pole Mount Brackets

Standard	LB18 LB24	LW18 LW24	QZ18 QZ24	SZ18 SZ24	QL18 QL24	SL18 SL24	QLA18 QLA24
Steel	Steel	PC	PC	Al	PC	Al	PC

* Please refer to page 34-39 for detailed dimensions.

ST45L/ ST56L/ ST80L series

LED Steady/Flashing Tower Lights

Interchangeable Lens Concept

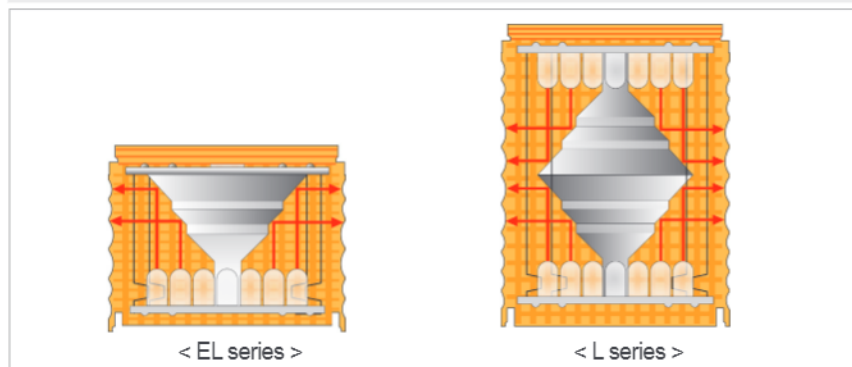
ST45L/ ST56L/ ST80L series product allows for the lens arrangement to be adjusted after removing the bolt that secures the cover. If additional lenses are required for this product please reach out to us. ST45L/ ST56L/ ST80L series can be stacked up to 5 layers.



Common Specifications(ST45(M)L/ ST56(M)EL/ ST56(M)L/ ST80(M)EL/ ST80(M)L)

- 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 buzzer available (Volume : Max 90dB at 1m)
- Built-in alarm available (Volume : Max 85dB at 1m/ Speaker output type)
(Can select from 5 warning sounds, 5 alarms, 5 melodies to fit your application needs)
- Flashing rate : 60-80 flashes/min
- Customized color arrangement available (LED light distribution system and lens is integrated into a combined structure)
- Materials : Lens-AS, Housing-ABS, Pole-Al
- Ambient operating temperature: -30°C to +60°C
- Protection rating : Standard type-IP44, Built-in buzzer type-IP23
- Certificates : CE Compliant, UL Listed
- Compliant with RoHS directive

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 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)
		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 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 Alarms	ST45L(F)-WA	ST56EL(F)-WA	ST56L(F)-WA	ST80EL(F)-WA	ST80L(F)-WA



Warning/
Signal/
Stackable



Signal &
Electric Horn/
Speakers



Vessels and
Heavy-Duty
Equipment



Explosion
Proof



Warning
Light Bar



Aviation
Obstruction
Lights



Signal Tower
Lights



USB/ETN
Signal Tower
Lights



Wireless
Network
System



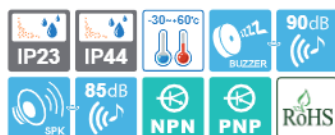
Electric Horn/
Speakers



Industrial
LED Lights

ST80ML

Ø80mm LED Steady/Flashing Tower Lights



ST80ML series

Built-in buzzer output holes formed on the body of the product.



Substitute model numbers for discontinued model

Built-in signal sound type, ST80ML-WS, ST80ML-WM, ST80ML-WA are substituted for old model number ST80WML. All specifications such as diameter and functions are all the same.

ST80ML Ø80mm Direct Mount, LED Steady/Flashing

Model number	Layer	Voltage	Current	Certificates	Weight	Color
ST80ML ST80ML-BZ ST80ML-WS ST80ML-WM ST80ML-WA ST80MLF ST80MLF-BZ ST80MLF-WS ST80MLF-WM ST80MLF-WA	1	AC/DC12V	0.160A	CE DC24V only UL	0.40kg	● R-Red
		AC/DC24V	0.080A		0.40kg	
		AC110V	0.055A		0.64kg	
		AC220V	0.027A		0.64kg	
	2	AC/DC12V	0.320A		0.54kg	● R-Red ● G-Green
		AC/DC24V	0.160A		0.54kg	
		AC110V	0.064A		0.78kg	
		AC220V	0.032A		0.78kg	
	3	AC/DC12V	0.480A		0.68kg	● R-Red ● A-Amber ● G-Green
		AC/DC24V	0.240A		0.68kg	
		AC110V	0.073A		0.92kg	
		AC220V	0.036A		0.92kg	
	4	AC/DC12V	0.640A		0.83kg	● R-Red ● A-Amber ● G-Green ● B-Blue
		AC/DC24V	0.320A		0.83kg	
		AC110V	0.084A		1.06kg	
		AC220V	0.042A		1.06kg	
	5	AC/DC12V	0.800A		0.97kg	● R-Red ● A-Amber ● G-Green ● B-Blue ● W-White
		AC/DC24V	0.400A		0.97kg	
		AC110V	0.093A		1.20kg	
		AC220V	0.046A		1.20kg	

- ST80ML Steady
ST80ML-BZ Built-in buzzer, Steady
ST80ML-WS Built-in 5 Warning sounds, Steady
ST80ML-WM Built-in 5 Melodies, Steady
ST80ML-WA Built-in 5 Alarms, Steady
ST80MLF Steady/ flashing
ST80MLF-BZ Built-in buzzer, Steady/ flashing
ST80MLF-WS Built-in 5 Warning sounds, Steady/ flashing
ST80MLF-WM Built-in 5 Melodies, Steady/ flashing
ST80MLF-WA Built-in 5 Alarms, Steady/ flashing

※ Please refer to page 24 for detailed information about selectable sound patterns.

Signal/ Audible Line Current(per each layer)

Voltage	AC/DC12V	AC/DC24V	AC110V	AC220V
Signal line current	0.160A	0.080A	0.055A	0.027A
Audible line current	0.016A	0.031A	0.027A	0.030A



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 TWS80

Wall Mount Bracket TWA80

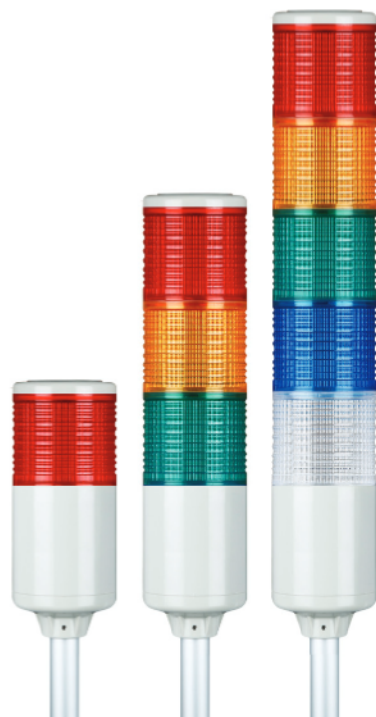
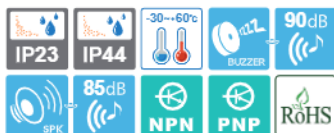


Ordering Specification

ST80ML	-	3	-	110	-	RAG
[Model number]		[Layer]		[Voltage]		[Color]
• ST80ML • ST80ML-BZ • ST80ML-WS • ST80ML-WM • ST80ML-WA • ST80MLF • ST80MLF-BZ • ST80MLF-WS • ST80MLF-WM • ST80MLF-WA		• 1-1Layer • 2-2Layers • 3-3Layers • 4-4Layers • 5-5Layers		• 12-DC12V • 24-DC24V • 110-AC110V • 220-AC220V		● R-Red ● A-Amber ● G-Green ● B-Blue ● W-White

ST80L

Ø80mm LED Steady/Flashing Tower Lights



ST80L series

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



Substitute model numbers for discontinued model

Built-in signal sound type, ST80L-WS, ST80L-WM, ST80L-WA are substituted for old model number ST80WL. All specifications such as diameter and functions are all the same.



Mounting Bracket

Standard	LB24	LW24	QZ24
Steel	Steel	PC	PC
SZ24	QL24	SL24	QLA24
Al	PC	Al	PC

※ Please refer to page 34-39 for detailed dimensions.



ST80L Ø80mm Pole Mount, LED Steady/Flashing

Model number	Layer	Voltage	Current	Certificates	Weight	Color
ST80L ST80L-BZ ST80L-WS ST80L-WM ST80L-WA ST80LF ST80LF-BZ ST80LF-WS ST80LF-WM ST80LF-WA	1	AC/DC12V	0.160A	CE DC24V only UL DC24V only	0.62kg	● R-Red
		AC/DC24V	0.080A		0.62kg	
		AC110V	0.055A		0.86kg	
		AC220V	0.027A		0.86kg	
	2	AC/DC12V	0.320A		0.77kg	● R-Red ● G-Green
		AC/DC24V	0.160A		0.77kg	
		AC110V	0.064A		1.00kg	
		AC220V	0.032A		1.00kg	
	3	AC/DC12V	0.480A		0.91kg	● R-Red ● A-Amber ● G-Green
		AC/DC24V	0.240A		0.91kg	
		AC110V	0.073A		1.14kg	
		AC220V	0.036A		1.14kg	
	4	AC/DC12V	0.640A		1.05kg	● R-Red ● A-Amber ● G-Green ● B-Blue
		AC/DC24V	0.320A		1.05kg	
		AC110V	0.084A		1.29kg	
		AC220V	0.042A		1.29kg	
	5	AC/DC12V	0.800A		1.19kg	● R-Red ● A-Amber ● G-Green ● B-Blue ● W-White
		AC/DC24V	0.400A		1.19kg	
		AC110V	0.093A		1.14kg	
		AC220V	0.046A		1.14kg	

ST80L	Steady
ST80L-BZ	Built-in buzzer, Steady
ST80L-WS	Built-in 5 Warning sounds, Steady
ST80L-WM	Built-in 5 Melodies, Steady
ST80L-WA	Built-in 5 Alarms, Steady
ST80LF	Steady/ flashing
ST80LF-BZ	Built-in buzzer, Steady/ flashing
ST80LF-WS	Built-in 5 Warning sounds, Steady/ flashing
ST80LF-WM	Built-in 5 Melodies, Steady/ flashing
ST80LF-WA	Built-in 5 Alarms, Steady/ flashing

※ Please refer to page 24 for detailed information about selectable sound patterns.

Signal/ Audible Line Current(per each layer)

Voltage	AC/DC12V	AC/DC24V	AC110V	AC220V
Signal Line Current	0.160A	0.080A	0.055A	0.027A
Audible Line Current	0.016A	0.031A	0.027A	0.030A



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



Order Specification

ST80L	-	3	-	220	-	RAG	-	LW24
[Model number]		[Layer]		[Voltage]		[Color]		[Mounting bracket]
• ST80L • ST80L-BZ • ST80L-WS • ST80L-WM • ST80L-WA • ST80LF • ST80LF-BZ • ST80LF-WS • ST80LF-WM • ST80LF-WA		• 1-1Layer • 2-2Layers • 3-3Layers • 4-4Layers • 5-5Layers		• 12-DC12V • 24-DC24V • 110-AC110V • 220-AC220V		• R-Red • A-Amber • G-Green • B-Blue • W-White		• None • -Standard • Bracket • -LB24 • -LW24 • -QZ24 • -SZ24 • -QL24 • -SL24 • -QLA24



Warning/
Signal/
Stackable



Signal &
Electric Horn/
Speakers



Vessels and
Heavy-Duty
Equipment



Explosion
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Warning
Light Bar



Aviation
Obstruction
Lights



Signal Tower
Lights



USB/ETN
Signal Tower
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Wireless
Network
System



Electric Horn/
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Industrial
LED Lights

ST80ML/ ST80L

Ø80mm LED Steady/Flashing Tower Lights



Technical Diagram

(Units : mm)

ST80ML : AC/DC
ST80MLF : AC/DC



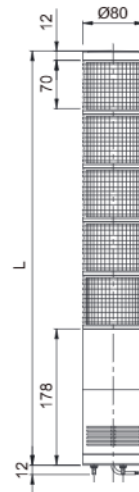
LAYER	L
1	180
2	250
3	320
4	390
5	460



ST80ML-BZ : AC/DC
ST80MLF-BZ : AC/DC



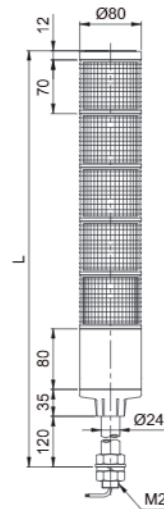
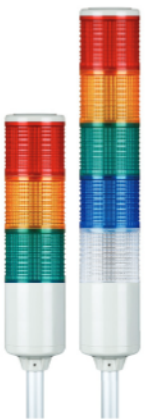
ST80ML-W□
ST80MLF-W□



LAYER	L
1	260
2	330
3	400
4	470
5	540



ST80L : AC/DC
ST80LF : AC/DC



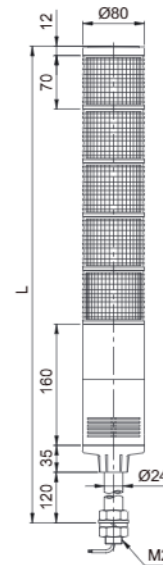
LAYER	L
1	317
2	387
3	457
4	527
5	597

M24×1.5 THREAD

ST80L-BZ : AC/DC
ST80LF-BZ : AC/DC



ST80L-W□
ST80LF-W□



LAYER	L
1	397
2	467
3	537
4	607
5	677

M24×1.5 THREAD



Wiring Instructions

- External power line standard : UL1015 AWG18(0.75sq)×2C 400mm
- Signal line standard : UL1007 AWG22(0.3sq) 400mm
- LED tower light can be wired by using transistor and external contact

※ Please refer to page 299-300 for detailed wiring instructions.

ST45L/ ST56L/ ST80L series

LED Steady/Flashing Tower Lights



Wiring Instructions(using external contact)

- Please wire based on below instructions in case of using external contact.
- Customized AC each layer power supply type wiring is same as DC steady type.

Applied products	Wiring Instructions	Applied products	Wiring Instructions
DC Steady	EXTERNAL CONTACT ST45ML ST45L ST56MEL ST56ML ST56EL ST56L ST80MEL ST80ML ST80EL ST80L	AC Steady	EXTERNAL CONTACT ST45ML ST45L ST56MEL ST56ML ST56EL ST56L ST80MEL ST80ML ST80EL ST80L
DC Steady/Flashing	EXTERNAL CONTACT ST45MLF ST45LF ST56MELF ST56MLF ST56ELF ST56LF ST80MELF ST80MLF ST80ELF ST80LF	AC Steady/Flashing	EXTERNAL CONTACT ST45MLF ST45LF ST56MELF ST56MLF ST56ELF ST56LF ST80MELF ST80MLF ST80ELF ST80LF
DC/AC Steady Built-in Signal Sound	EXTERNAL CONTACT ST45ML ST45L ST56MEL ST56ML ST56EL ST56L ST80MEL ST80ML ST80EL ST80L • STXXM(E)L - WS/ WM/ WA same wiring instruction • STXX(E)L - WS/ WM/ WA same wiring instruction • STXXL ↳ Lens diameter 45(45mm) : ST45L 56(56mm) : ST56L 80(80mm) : ST80L	DC/AC Steady/Flashing Built-in Signal Sound	EXTERNAL CONTACT ST45MLF ST45LF ST56MELF ST56MLF ST56ELF ST56LF ST80MELF ST80MLF ST80ELF ST80LF • STXXM(E)LF - WS/ WM/ WA same wiring instruction • STXX(E)LF - WS/ WM/ WA same wiring instruction • STXXLF ↳ Lens diameter 45(45mm) : ST45LF 56(56mm) : ST56LF 80(80mm) : ST80LF



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Wireless
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System



Electric Horn/
Speakers



Industrial
LED Lights

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

ST45L/ ST56L/ ST80L series



Wiring Instructions(using external contact)

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

Applied products	Wiring Instructions		
DC Steady	EXTERNAL TRANSISTOR-NPN EXTERNAL TRANSISTOR-PNP		
ST45ML ST45L ST56MEL ST56ML ST56EL ST56L ST80MEL ST80ML ST80EL ST80L			
Applied products	Wiring Instructions	Applied products	Wiring Instructions
DC Steady/Flashing	EXTERNAL TRANSISTOR-PNP	AC Steady/Flashing	EXTERNAL TRANSISTOR-PNP
ST45MLF ST45LF ST56MELF ST56MLF ST56ELF ST56LF ST80MELF ST80MLF ST80ELF ST80LF		ST45MLF ST45LF ST56MELF ST56MLF ST56ELF ST56LF ST80MELF ST80MLF ST80ELF ST80LF	
DC/AC Steady Built-in Signal Sound	EXTERNAL TRANSISTOR-NPN	DC/AC Steady/Flashing Built-in Signal Sound	EXTERNAL TRANSISTOR-NPN
ST45ML ST45L ST56MEL ST56ML ST56EL ST56L ST80MEL ST80ML ST80EL ST80L	• STXXM(E)L - WS/ WM/ WA same wiring instruction • STXX(E)L - WS/ WM/ WA same wiring instruction • STXXL └ Lens diameter 45(45mm) : ST45L 56(56mm) : ST56L 80(80mm) : ST80L	ST45MLF ST45LF ST56MELF ST56MLF ST56ELF ST56LF ST80MELF ST80MLF ST80ELF ST80LF	• STXXM(E)LF - WS/ WM/ WA same wiring instruction • STXX(E)LF - WS/ WM/ WA same wiring instruction • STXXLF └ Lens diameter 45(45mm) : ST45LF 56(56mm) : ST56LF 80(80mm) : ST80LF

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