ST45L/ ST56L/ ST80L series

LED Steady/Flashing Tower Lights

Qlight

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.

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

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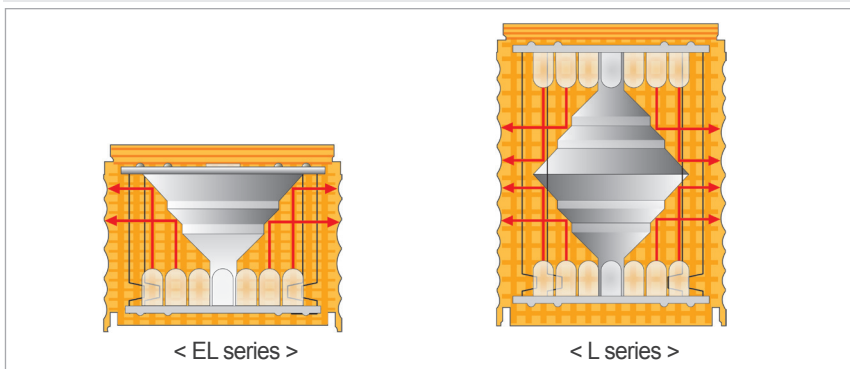
- Qlight's special light distribution system with multi-tiered reflector provides linear and balanced light transmission to the lens for strong LED illumination throughout the product
- The special light diffusion structure inside the product creates the brightest signal light at the center of the lens

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)
	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

Warning/ Signal/ Stackable

Signal & Electric Horn/ Speakers

Vessels and Heavy-Duty Equipment
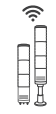
Explosion Proof

Warning Light Bar

Aviation Obstruction Lights

Signal Tower Lights

USB/ETN Signal Tower Lights
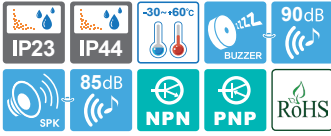
Wireless Network System

Electric Horn/ Speakers

Industrial LED Lights

ST45ML

Ø45mm LED Steady/Flashing Tower Lights

Qlight

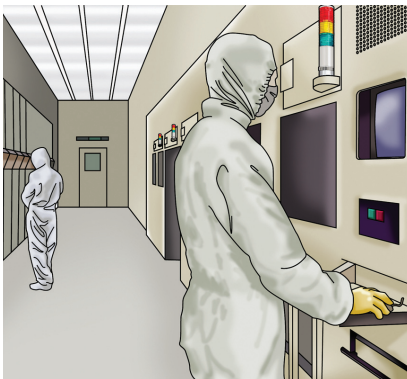IP23 | IP44 | -30~+60℃ | BUZZER 90dB | SPK 85dB | NPN | PNP | RoHS

ST45ML series

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

Substitute model numbers for discontinued model

Built-in signal sound type, ST45ML-WS, ST45ML-WM, ST45ML-WA are substituted for old model number ST45WML.
All specifications such as diameter and functions are all the same.

ST45ML Ø45mm Direct Mount, LED Steady/Flashing

Model number	Layer	Voltage	Current	Certificates	Weight	Color
ST45ML ST45ML-BZ ST45ML-WS ST45ML-WM ST45ML-WA ST45MLF ST45MLF-BZ ST45MLF-WS ST45MLF-WM ST45MLF-WA	1	AC/DC12V AC/DC24V AC110V AC220V	0.040A 0.040A 0.024A 0.012A	CE DC24V only UL DC24V only	0.19kg 0.19kg 0.25kg 0.25kg	● R-Red
	2	AC/DC12V AC/DC24V AC110V AC220V	0.080A 0.080A 0.026A 0.013A		0.21kg 0.21kg 0.29kg 0.29kg	● R-Red ● G-Green
	3	AC/DC12V AC/DC24V AC110V AC220V	0.120A 0.120A 0.028A 0.014A		0.25kg 0.25kg 0.34kg 0.34kg	● R-Red ● A-Amber ● G-Green
	4	AC/DC12V AC/DC24V AC110V AC220V	0.160A 0.160A 0.031A 0.015A		0.30kg 0.30kg 0.38kg 0.38kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	5	AC/DC12V AC/DC24V AC110V AC220V	0.200A 0.200A 0.033A 0.016A		0.34kg 0.34kg 0.42kg 0.42kg	● R-Red ● A-Amber ● G-Green ● B-Blue ○ W-White

ST45ML	Steady
ST45ML-BZ	Built-in buzzer, Steady
ST45ML-WS	Built-in 5 Warning sounds, Steady
ST45ML-WM	Built-in 5 Melodies, Steady
ST45ML-WA	Built-in 5 Alarms, Steady
ST45MLF	Steady/ flashing
ST45MLF-BZ	Built-in buzzer, Steady/ flashing
ST45MLF-WS	Built-in 5 Warning sounds, Steady/ flashing
ST45MLF-WM	Built-in 5 Melodies, Steady/ flashing
ST45MLF-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	0.040A	0.040A	0.024A	0.012A
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

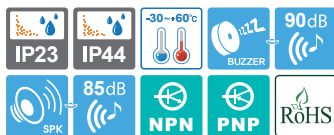Wall Mount Bracket **TWS45**   Wall Mount Bracket **TWA45**

Ordering Specification

ST45ML	-	3	-	24	-	RAG
[Model number]		[Layer]		[Voltage]		[Color]

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

ST45L

Ø45mm LED Steady/Flashing Tower Lights

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

ST45L series

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

Substitute model numbers for discontinued model

Built-in signal sound type, ST45L-WS, ST45L-WM, ST45L-WA are substituted for old model number ST45WL.
All specifications such as diameter and functions are all the same.

Mounting Bracket

Standard	LB18	LW18	QZ18
Steel	Steel	PC	PC
SZ18	QL18	SL18	QLA18
Al	PC	Al	PC

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

ST45L Ø45mm Pole Mount, LED Steady/Flashing

Model number	Layer	Voltage	Current	Certificates	Weight	Color
ST45L ST45L-BZ ST45L-WS ST45L-WM ST45L-WA ST45LF ST45LF-BZ ST45LF-WS ST45LF-WM ST45LF-WA	1	AC/DC12V AC/DC24V AC110V AC220V	0.040A 0.040A 0.024A 0.012A	CE DC24V only UL DC24V only	0.35kg 0.35kg 0.45kg 0.45kg	● R-Red
	2	AC/DC12V AC/DC24V AC110V AC220V	0.080A 0.080A 0.026A 0.013A		0.39kg 0.39kg 0.49kg 0.49kg	● R-Red ● G-Green
	3	AC/DC12V AC/DC24V AC110V AC220V	0.120A 0.120A 0.028A 0.014A		0.44kg 0.44kg 0.54kg 0.54kg	● R-Red ● A-Amber ● G-Green
	4	AC/DC12V AC/DC24V AC110V AC220V	0.160A 0.160A 0.031A 0.015A		0.48kg 0.48kg 0.58kg 0.58kg	● R-Red ● A-Amber ● G-Green ● B-Blue
	5	AC/DC12V AC/DC24V AC110V AC220V	0.200A 0.200A 0.033A 0.016A		0.52kg 0.52kg 0.62kg 0.62kg	● R-Red ● A-Amber ● G-Green ● B-Blue ○ W-White

ST45L	Steady
ST45L-BZ	Built-in buzzer, Steady
ST45L-WS	Built-in 5 Warning sounds, Steady
ST45L-WM	Built-in 5 Melodies, Steady
ST45L-WA	Built-in 5 Alarms, Steady
ST45LF	Steady/ flashing
ST45LF-BZ	Built-in buzzer, Steady/ flashing
ST45LF-WS	Built-in 5 Warning sounds, Steady/ flashing
ST45LF-WM	Built-in 5 Melodies, Steady/ flashing
ST45LF-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	0.040A	0.040A	0.024A	0.012A
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

Ordering Specification

ST45L	-	**3**	-	**24**	-	**RAG**	-	**LW18**
[Model number]		[Layer]		[Voltage]		[Color]		[Mounting bracket]

- ST45L
- ST45L-BZ
- ST45L-WS
- ST45L-WM
- ST45L-WA
- ST45LF
- ST45LF-BZ
- ST45LF-WS
- ST45LF-WM
- ST45LF-WA

[Layer]
- 1-1Layer
- 2-2Layers
- 3-3Layers
- 4-4Layers
- 5-5Layers

[Voltage]
- 12-DC12V
- 24-DC24V
- 110-AC110V
- 220-AC220V

[Color]
- ● R-Red
- ● A-Amber
- ● G-Green
- ● B-Blue
- ○ W-White

[Mounting bracket]
- None
 -Standard
- Bracket
 -LB18
 -LW18
 -QZ18
 -SZ18
 -QL18
 -SL18
 -QLA18

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

ST45ML/ ST45L

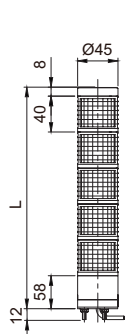Ø45mm LED Steady/Flashing Tower Lights
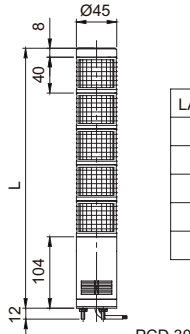
Qlight

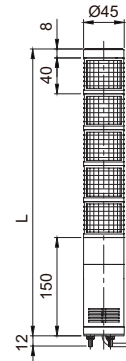## Technical Diagram

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

PCD 30
Ø8 CABLE ENTRY   360˚/3- M4 BOLT

ST45MLF-BZ : AC

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

ST45L : AC/DC
ST45L-BZ : DC
ST45LF : DC
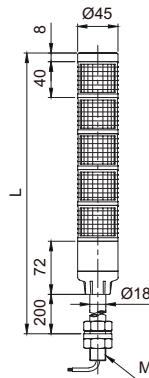
LAYER	L
1	320
2	360
3	400
4	440
5	480

M18×1.5 THREAD

ST45L-BZ : AC
ST45LF : AC
ST45LF-BZ : DC
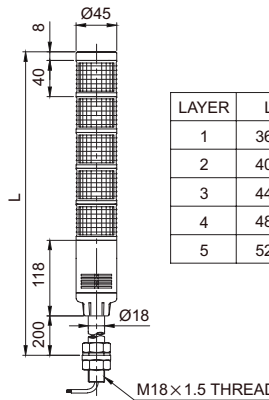
LAYER	L
1	366
2	406
3	446
4	486
5	526

M18×1.5 THREAD

ST45LF-BZ : AC
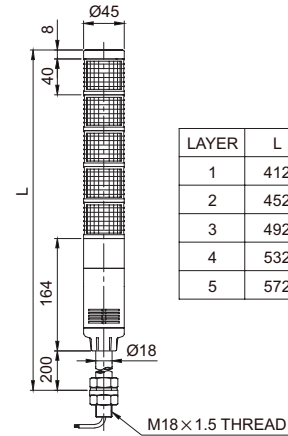
LAYER	L
1	412
2	452
3	492
4	532
5	572

M18×1.5 THREAD

ST45ML-W□ : DC
ST45MLF-W□ : DC
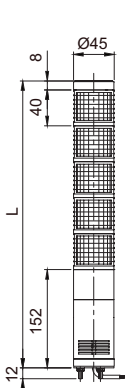
LAYER	L
1	200
2	240
3	280
4	320
5	360

PCD30
Ø8 CABLE ENTRY   360˚/3- M4 BOLT

ST45ML-W□ : AC
ST45MLF-W□ : AC

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

ST45L-W□ : DC
ST45LF-W□ : DC
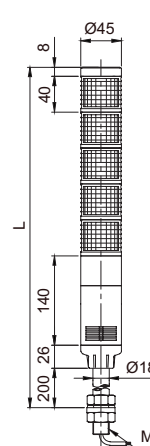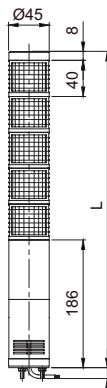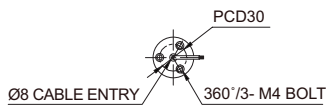
LAYER	L
1	414
2	454
3	494
4	534
5	574

M18×1.5 THREAD

ST45L-W□ : AC
ST45LF-W□ : AC
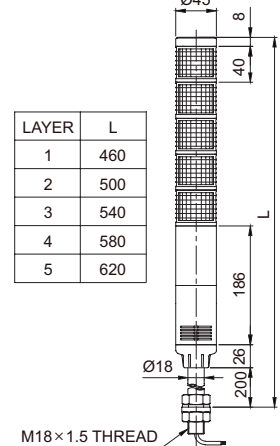
LAYER	L
1	460
2	500
3	540
4	580
5	620

M18×1.5 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 page299-300 for detailed wiring instructions.