

# 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-AI
- 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.

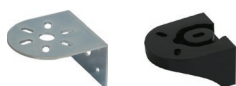
| Main | Built-in sound                   | Channel                         | Sound  |
|------|----------------------------------|---------------------------------|--|
| BZ   | 1 buzzer sound<br>2 buzzer sound | -                               | ※ Customized 2 tone Buzzer available   |
| WS   | 5 Warning sounds                 | Ch1<br>Ch2<br>Ch3<br>Ch4<br>Ch5 | Fire.A-ANG<br>Emergency<br>Ambulance<br>Machinery Fault<br>High Expansion        |
| WM   | 5 Melodies                       | Ch1<br>Ch2<br>Ch3<br>Ch4<br>Ch5 | Sweet Home<br>For Elise<br>Cuckoo's Waltz<br>Piano Sonata<br>Turkish March       |
| WA   | 5 Alarms                         | Ch1<br>Ch2<br>Ch3<br>Ch4<br>Ch5 | Beep Intermittent<br>Door Chime<br>Phone Ring<br>PI.PI.PI Short<br>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 | TWA45 |
| TWS80 | TWA80 |



Steel PC

#### ·Pole Mount Brackets

|          |              |              |              |              |              |              |
|----------|--------------|--------------|--------------|--------------|--------------|--------------|
| Standard | LB18<br>LB24 | LW18<br>LW24 | QZ18<br>QZ24 | SZ18<br>SZ24 | QL18<br>QL24 | SL18<br>SL24 |
|----------|--------------|--------------|--------------|--------------|--------------|--------------|

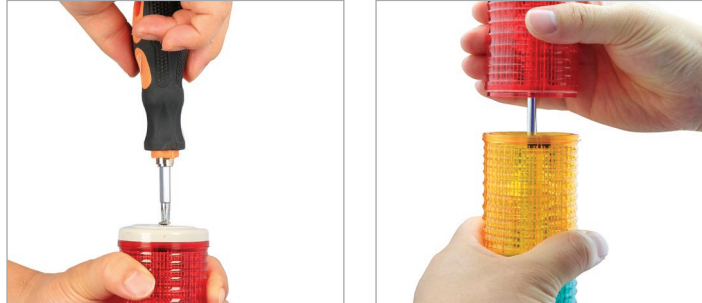


Steel Steel ABS ABS AI ABS AI

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

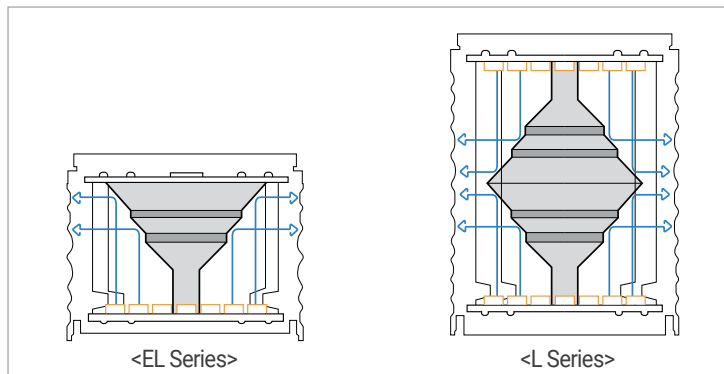
## Interchangeable Lens Concept

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<br>H40mm   | Ø56mm<br>H40mm | Ø56mm<br>H70mm | Ø80mm<br>H40mm | Ø80mm<br>H70mm |              |
| <br>Direct mount | No sound  | Standard   | ST45ML(F)        | ST56MEL(F)     | ST56ML(F)      | ST80MEL(F)     | ST80ML(F)      |              |
|   | <br>BUZZER | Built-in buzzer  | ST45ML(F)-BZ     | ST56MEL(F)-BZ  | ST56ML(F)-BZ   | ST80MEL(F)-BZ  | ST80ML(F)-BZ   |              |
|   |   | <br>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 |
| <br>Pole mount   | No sound  | Standard   | ST45L(F)         | ST56EL(F)      | ST56L(F)       | ST80EL(F)      | ST80L(F)       |              |
|   | <br>BUZZER | Built-in buzzer  | ST45L(F)-BZ      | ST56EL(F)-BZ   | ST56L(F)-BZ    | ST80EL(F)-BZ   | ST80L(F)-BZ    |              |
|   |   | <br>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  |

# Ø56mm LED Steady/Flashing Tower Lights

## ST56ML / ST56L



ST56ML Series

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



### ST56ML Ø56mm Direct mount, LED Steady/Flashing

| Model number  | Layers | Voltage                      | Certificates | Weight                     | Color  |
|---|--------|------------------------------|--------------|----------------------------|--|
| ST56ML<br>Steady                                    | 1      | AC/DC12V                     |              | 0.22kg                     | ● R-Red  |
| ST56ML-BZ<br>Steady w/built-in buzzer               |        | AC/DC24V<br>AC110V<br>AC220V |              | 0.22kg<br>0.45kg<br>0.45kg |  |
| ST56ML-WS<br>Steady/5 Warning sounds                | 2      | AC/DC12V                     |              | 0.30kg                     | ● R-Red<br>● G-Green                                       |
| ST56ML-WM<br>Steady/5 Melodies                      |        | AC/DC24V<br>AC110V<br>AC220V |              | 0.30kg<br>0.53kg<br>0.53kg |  |
| ST56ML-WA<br>Steady/5 Alarms                        | 3      | AC/DC12V                     | CE           | 0.38kg                     | ● R-Red<br>● A-Amber<br>● G-Green                          |
| ST56MLF<br>Steady/Flashing                          |        | AC/DC24V<br>AC110V<br>AC220V |              | 0.38kg<br>0.61kg<br>0.61kg |  |
| ST56MLF-BZ<br>Steady/Flashing w/<br>built-in buzzer | 4      | AC/DC12V                     |              | 0.46kg                     | ● R-Red<br>● A-Amber<br>● G-Green<br>● B-Blue              |
| ST56MLF-WS<br>Steady/Flashing/5 Warning<br>sounds   |        | AC/DC24V<br>AC110V<br>AC220V |              | 0.46kg<br>0.70kg<br>0.70kg |  |
| ST56MLF-WM<br>Steady/Flashing/5 Melodies            | 5      | AC/DC12V                     |              | 0.54kg                     | ● R-Red<br>● A-Amber<br>● G-Green<br>● B-Blue<br>○ W-White |
| ST56MLF-WA<br>Steady/Flashing/5 Alarms              |        | AC/DC24V<br>AC110V<br>AC220V |              | 0.54kg<br>0.78kg<br>0.78kg |  |

※ 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) | 120mA        | 95mA         | 70mA   | 55mA   |
| Buzzer current                | 40mA         | 75mA         | 50mA   | 40mA   |
| 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



### Ordering Specifications

|                |   |            |   |            |   |           |
|----------------|---|------------|---|------------|---|-----------|
| ST56ML         | - | 3          | - | 110        | - | RAG       |
| [Model number] |   | [Layers]   |   | [Voltage]  |   | [Color]   |
| ST56ML         |   | 1-1 Layers |   | 12-DC12V   |   | ● R-Red   |
| ST56ML-BZ      |   | 2-2 Layers |   | 24-DC24V   |   | ● A-Amber |
| ST56ML-WS      |   | 3-3 Layers |   | 110-AC110V |   | ● G-Green |
| ST56ML-WM      |   | 4-4 Layers |   | 220-AC220V |   | ● B-Blue  |
| ST56ML-WA      |   | 5-5 Layers |   |            |   | ○ W-White |
| ST56MLF        |   |            |   |            |   |           |
| ST56MLF-BZ     |   |            |   |            |   |           |
| ST56MLF-WS     |   |            |   |            |   |           |
| ST56MLF-WM     |   |            |   |            |   |           |
| ST56MLF-WA     |   |            |   |            |   |           |



## ST56L Ø56mm Pole mount, LED Steady/Flashing

| Model number                                       | Layers | Voltage                      | Certificates | Weight                     | Color                              |
|--|--------|------------------------------|--------------|----------------------------|------------------------------------|
| ST56L<br>Steady                                    | 1      | AC/DC12V                     |              | 0.44kg                     | ● R-Red                            |
| ST56L-BZ<br>Steady w/built-in buzzer               |        | AC/DC24V<br>AC110V<br>AC220V |              | 0.44kg<br>0.60kg<br>0.60kg |                                    |
| ST56L-WS<br>Steady/5 Warning sounds                | 2      | AC/DC12V                     |              | 0.52kg                     | ● R-Red                            |
| ST56L-WM<br>Steady/5 Melodies                      |        | AC/DC24V<br>AC110V<br>AC220V |              | 0.52kg<br>0.68kg<br>0.68kg | ● G-Green                          |
| ST56L-WA<br>Steady/5 Alarms                        | 3      | AC/DC12V                     | CE           | 0.60kg                     | ● R-Red                            |
| ST56LF-BZ<br>Steady/Flashing w/<br>built-in buzzer |        | AC/DC24V<br>AC110V<br>AC220V |              | 0.60kg<br>0.76kg<br>0.76kg | ● A-Amber<br>● G-Green             |
| ST56LF-WS<br>Steady/Flashing/5 Warning<br>sounds   | 4      | AC/DC12V                     |              | 0.68kg                     | ● R-Red                            |
| ST56LF-WM<br>Steady/Flashing/5 Melodies            |        | AC/DC24V<br>AC110V<br>AC220V |              | 0.68kg<br>0.84kg<br>0.84kg | ● A-Amber<br>● G-Green<br>● B-Blue |
| ST56LF-WA<br>Steady/Flashing/5 Alarms              | 5      | AC/DC12V                     |              | 0.77kg                     | ● R-Red                            |
|  |        | AC/DC24V                     |              | 0.77kg                     | ● A-Amber                          |
|  |        | AC110V                       |              | 0.93kg                     | ● G-Green                          |
|  |        | AC220V                       |              | 0.93kg                     | ● B-Blue<br>○ 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) | 120mA        | 95mA         | 70mA   | 55mA   |
| Buzzer current                | 40mA         | 75mA         | 50mA   | 40mA   |
| Signal sound current          | 200mA(DC12V) | 135mA(DC24V) | 50mA   | 35mA   |

### 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

|                |   |            |   |            |   |           |   |                 |
|----------------|---|------------|---|------------|---|-----------|---|-----------------|
| ST56L          | - | 3          | - | 220        | - | RAG       | - | LW18            |
| [Model number] |   | [Layers]   |   | [Voltage]  |   | [Color]   |   | [Bracket]       |
| ST56L          |   | 1-1 Layers |   | 12-DC12V   |   | ● R-Red   |   | · None-Standard |
| ST56L-BZ       |   | 2-2 Layers |   | 24-DC24V   |   | ● A-Amber |   | · Bracket       |
| ST56L-WS       |   | 3-3 Layers |   | 110-AC110V |   | ● G-Green |   | · LB18-LW18     |
| ST56L-WM       |   | 4-4 Layers |   | 220-AC220V |   | ● B-Blue  |   | · QZ18-SZ18     |
| ST56L-WA       |   | 5-5 Layers |   |            |   | ○ W-White |   | · QL18-SL18     |
| ST56LF         |   |            |   |            |   |           |   |                 |
| ST56LF-BZ      |   |            |   |            |   |           |   |                 |
| ST56LF-WS      |   |            |   |            |   |           |   |                 |
| ST56LF-WM      |   |            |   |            |   |           |   |                 |
| ST56LF-WA      |   |            |   |            |   |           |   |                 |



ST56L Series

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



### 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

# ST56ML / ST56L

## Technical Diagram

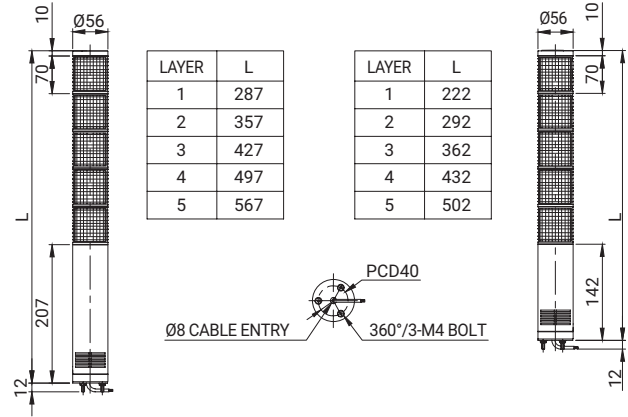
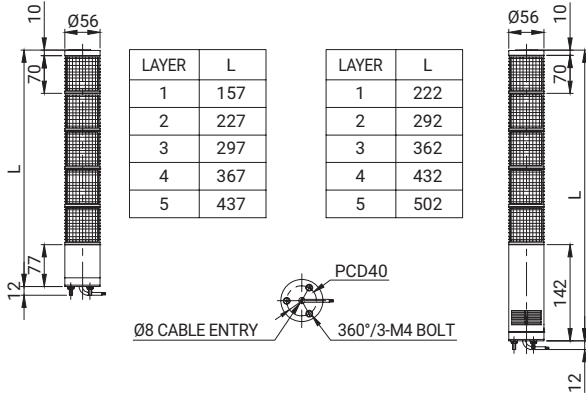
Units : mm

- ST56ML-AC/DC
- ST56ML-BZ-DC
- ST56MLF-DC

- ST56ML-BZ-AC
- ST56MLF-BZ-AC/DC
- ST56MLF-AC

- ST56ML-W□-AC
- ST56MLF-W□-AC

- ST56ML-W□-DC
- ST56MLF-W□-DC

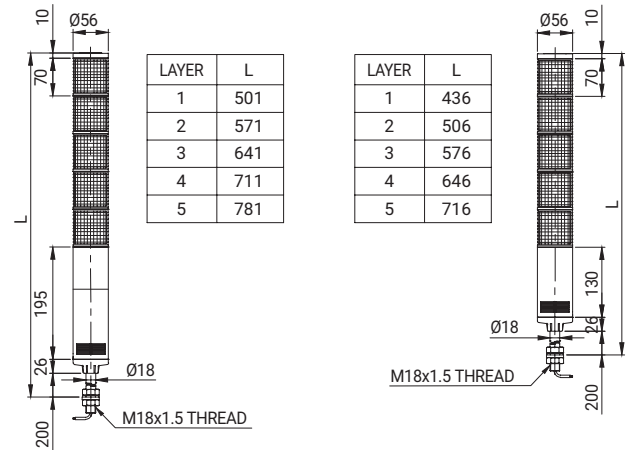
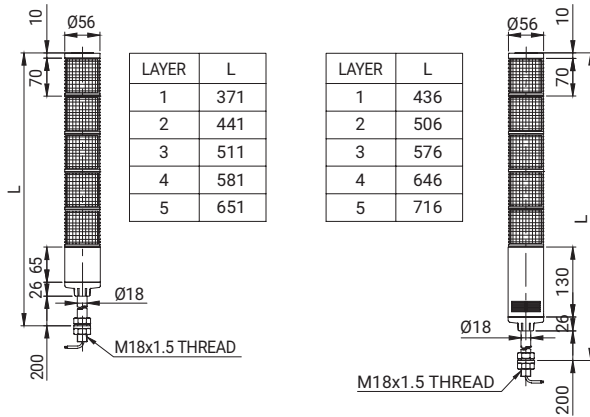


- ST56L-AC/DC
- ST56L-BZ-DC
- ST56LF-DC

- ST56L-BZ-AC
- ST56LF-BZ-AC/DC
- ST56LF-AC

- ST56L-W□-AC
- ST56LF-W□-AC

- ST56L-W□-DC
- ST56LF-W□-DC



## 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   |   | Wiring Instructions |  |
|---|---|---------------------|--|
| <p>DC Steady</p> <p>ST45ML<br/>ST45L<br/>ST56MEL<br/>ST56ML<br/>ST56EL<br/>ST56L<br/>ST80MEL<br/>ST80ML<br/>ST80EL<br/>ST80L</p>  | <p>AC Steady</p> <p>ST45ML<br/>ST45L<br/>ST56MEL<br/>ST56ML<br/>ST56EL<br/>ST56L<br/>ST80MEL<br/>ST80ML<br/>ST80EL<br/>ST80L</p>  |                     |  |
| <p>DC Steady/<br/>Flashing</p> <p>ST45MLF<br/>ST45LF<br/>ST56MELF<br/>ST56MLF<br/>ST56ELF<br/>ST56LF<br/>ST80MELF<br/>ST80MLF<br/>ST80ELF<br/>ST80LF</p>  | <p>AC Steady/<br/>Flashing</p> <p>ST45MLF<br/>ST45LF<br/>ST56MELF<br/>ST56MLF<br/>ST56ELF<br/>ST56LF<br/>ST80MELF<br/>ST80MLF<br/>ST80ELF<br/>ST80LF</p>  |                     |  |
| <p>DC/AC<br/>Steady<br/>Built-in Signal<br/>Sound</p> <p>ST45ML<br/>ST45L<br/>ST56MEL<br/>ST56ML<br/>ST56EL<br/>ST56L<br/>ST80MEL<br/>ST80ML<br/>ST80EL<br/>ST80L</p> <ul style="list-style-type: none"> <li>· ST□□M(E)L - WS/WM/WA same wiring instruction</li> <li>· ST□□(E)L - WS/WM/WA same wiring instruction</li> <li>· ST□□L</li> </ul> <p>                     Lens diameter 45(45mm): ST45L<br/>                     56(56mm): ST56L<br/>                     80(80mm): ST80L                 </p> | <p>DC/AC Steady/<br/>Flashing<br/>Built-in Signal<br/>Sound</p> <p>ST45MLF<br/>ST45LF<br/>ST56MELF<br/>ST56MLF<br/>ST56ELF<br/>ST56LF<br/>ST80MELF<br/>ST80MLF<br/>ST80ELF<br/>ST80LF</p> <ul style="list-style-type: none"> <li>· ST□□M(E)LF - WS/WM/WA same wiring instruction</li> <li>· ST□□(E)LF - WS/WM/WA same wiring instruction</li> <li>· ST□□LF</li> </ul> <p>                     Lens diameter 45(45mm): ST45LF<br/>                     56(56mm): ST56LF<br/>                     80(80mm): ST80LF                 </p> |                     |  |

- 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

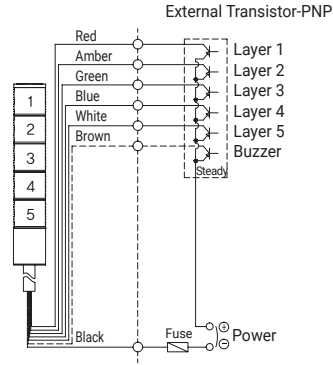
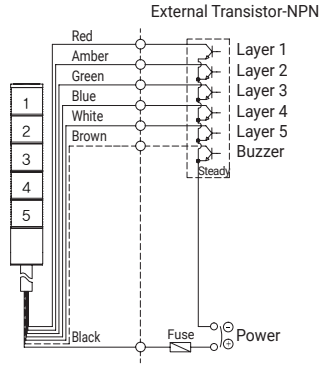
## Wiring Instructions

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

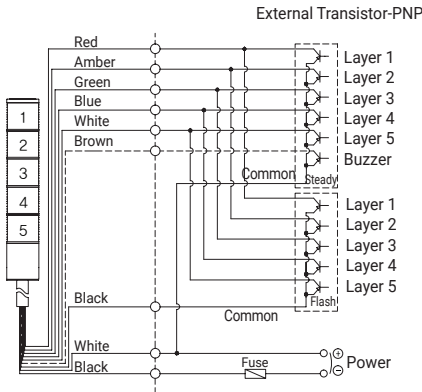
#### DC Steady

- ST45ML
- ST45L
- ST56MEL
- ST56ML
- ST56EL
- ST56L
- ST80MEL
- ST80ML
- ST80EL
- ST80L



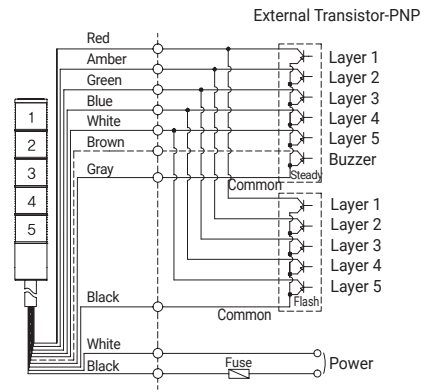
#### DC Steady/Flashing

- ST45MLF
- ST45LF
- ST56MELF
- ST56MLF
- ST56ELF
- ST56LF
- ST80MELF
- ST80MLF
- ST80ELF
- ST80LF



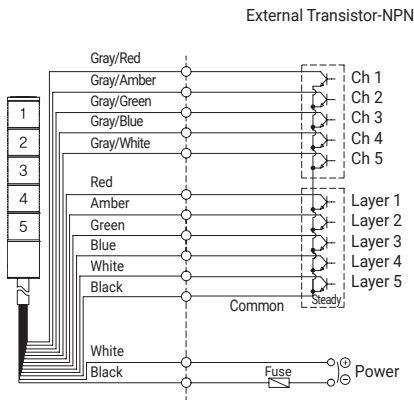
#### AC Steady/Flashing

- 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

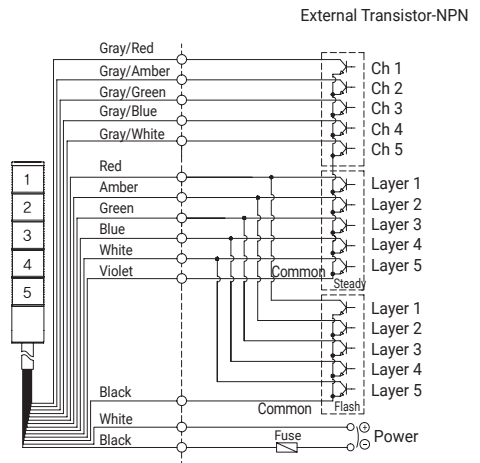


- ST□□M(E)L - WS/WM/WA same wiring instruction
- ST□□(E)L - WS/WM/WA same wiring instruction
- ST□□L

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)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