

TL-50 Signal Tower Lamp 50mm Siemens APT

Selection principles for tower lamp

Based on the usage and working environment, etc., the tower lamps shall be selected according to the following factors:

- Surrounding brightness
- Distance from the observation point
- Service life and use cost of the light source
- Noise level and pollution level of the service environment; if there are violent vibrations or shocks
- Influence on the safety caused by the emergent problems, such as light source damage
- Convenience in usage and maintenance

Therefore, different products are selected based on the operating requirements and the environmental characteristics, while the maintenance convenience and economy shall be considered in any case.

Light source

1. Lamp bulb

The lamp bulb glows by heating the resistance wire during current flows.

The helical tungsten filament is normally used and the inert gas is injected into the bulb.

In general, the lamp bulb is featured by:

(1) If the voltage is 10% lower than the rated voltage of the lamp bulb, the service life can be increased by four times, the consumption power reduces to 85% and the brightness drops to around 30%.

(2) If the voltage is 10% higher than the rated voltage, the service life can be shortened by 30%, the consumption power increases around 16% and the brightness rises around 40%. Normally, the standard service life of the lamp bulb is 1,000 – 1,500 hours.

2. LED

Light-emitting diode (LED) is a solid light-emitting device by use of the semi-conductor electroluminescent effect, mainly made of semi-conductor materials such as GaAs and GaP.

Like the normal semi-conductors, the service life of LED is affected by various factors such as overvoltage and surrounding temperature, etc. However, unlike the lamp bulb whose filament will be thinner caused by volatilization and which will be subject to mechanical wear, it is shock and vibration resistance and longer service life without special aseismic structure. Furthermore, LED has higher photoelectric conversion efficiency, which shall be deemed as an energy-saving clean light source with longer service life.

Normally, the standard service life of LED is 100,000 hours.

3. Xenon lamp

The xenon lamp glows by the gas excited by instantaneous high-energy, with higher brightness.

Compared with the common lamp bulb, xenon lamp requires bringing in extremely high electric energy instantly and letting out enormous light intensity. As the low voltage for exciting xenon and the available accessory materials, Xe gas is used by this light source, hence the name.

The bulb of xenon lamp can be fixed by seismic restraint method, with good seismic resistance. The spectrum of xenon lamp is similar to that of natural light. Its working mode is explosion flashing, which is same with the camera's flash lamp. Therefore, it has extremely strong visuality.

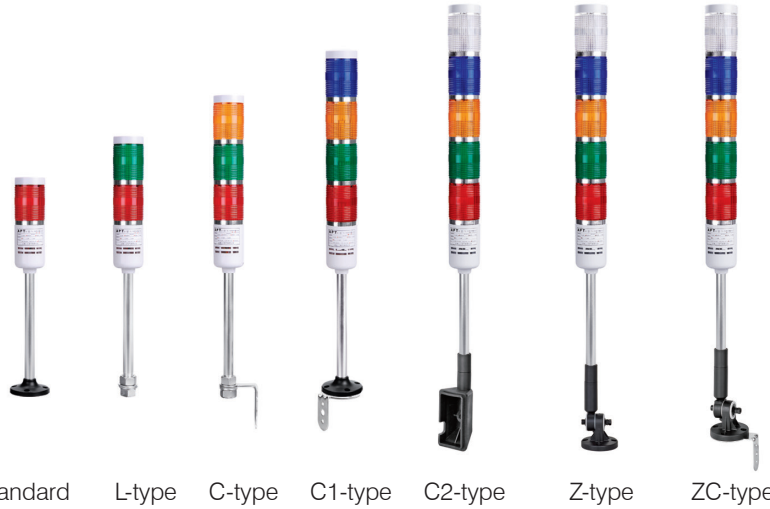
Human perceptive volume

Human perceptive volume is different from the physical intensity of sound pressure (dB).

Under the same sound intensity (dB), if the tone (audio frequency, amplitude) is different, the perceptive volume is different. Generally, the higher the audio frequency is, the more fidget people will get. Therefore, the stronger the sound intensity (dB) is and the higher the tone (vibration and frequency) is, the louder the sound will be. That is, the higher the sound wave frequency is and the larger the amplitude is, the louder the human perceptive volume will be.

The company also provides the products with sound intensity of 115dB. The warning tone with higher frequency is louder, and vice versa.

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Performance features:

- Pass the signal effectively even in a larger work space
- Glowing forms include permanent, flashing
- The lampshade is made of panlite which is heat-resisting and anti-knock
- Volume of buzzer > 90dB (10cm from the sound source in the horizontal direction)

Installation size

Standard	L-type	C-type
C1-type ZC-type	C2-type	Z-type

Note: If another installation method is taken, please specify when ordering.

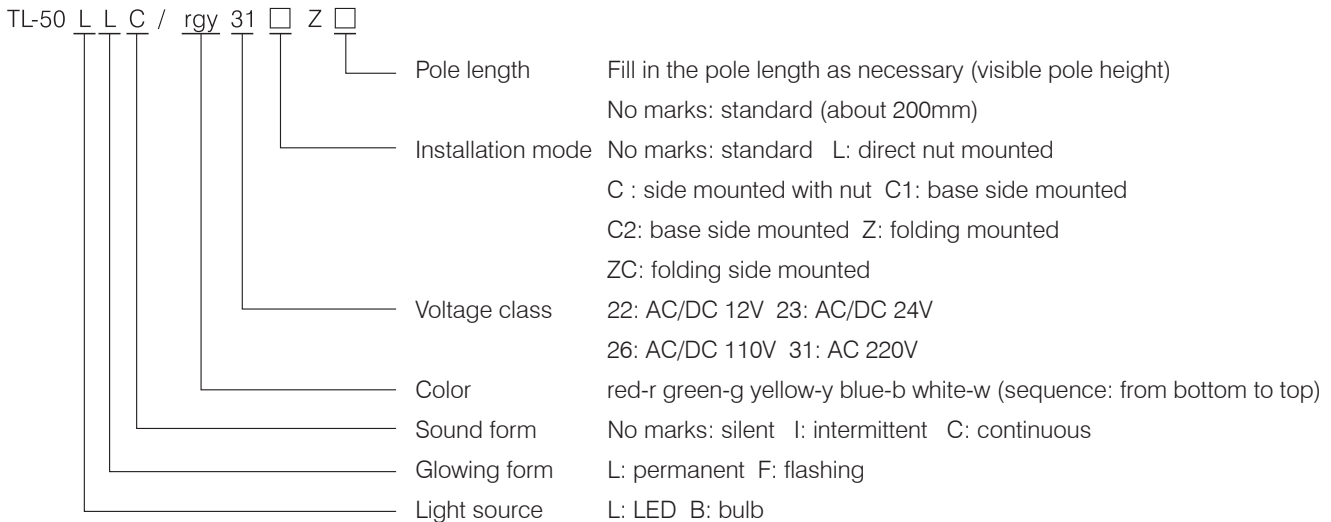
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Product specifications


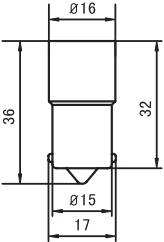

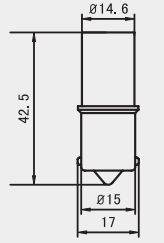
Model	Specification	Rated voltage/current (LED)	Rated voltage/current (buzzer)	Color
TL-50LL	LED permanent	12V/40mA, 24V/40mA, 110V/40mA, 220V/40mA	15~35 mA	Red Yellow Green Blue White
TL-50LF	LED flashing	12V/40mA, 24V/40mA, 110V/40mA, 220V/40mA		
TL-50BL	Bulb permanent	12V/260mA, 24V/140mA, 110V/30mA, 220V/17mA		
TL-50BF	Bulb flashing	12V/270mA, 24V/150mA, 110V/37mA, 220V/24mA		
TL-50LLI(C)	LED permanent (intermittent or continuous sound)	12V/80mA, 24V/80mA, 110V/40mA, 220V/40mA		
TL-50LFI(C)	LED flashing (intermittent or continuous sound)	12V/80mA, 24V/80mA, 110V/40mA, 220V/40mA		
TL-50BLI(C)	Bulb permanent (intermittent or continuous sound)	12V/270mA, 24V/150mA, 110V/45mA, 220V/35mA		
TL-50BFI(C)	Bulb flashing (intermittent or continuous sound)	12V/290mA, 24V/160mA, 110V/50mA, 220V/35mA		

Note: 12V, 24V, 110V are available for DC and AC, while 220V is only available for AC. The unit for rated current is layer.

Model designations



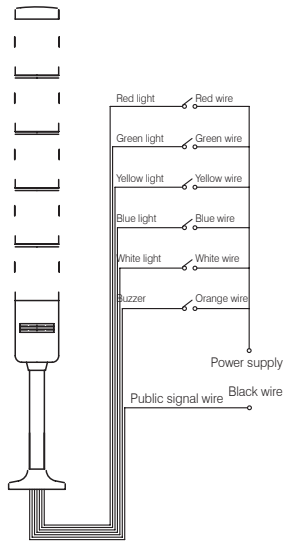
Accessories

Name		Model	Voltage class	Color	Function	Dimension drawing
Bulb		TL-50B1/■	22: AC/DC12V		As TL-50 AC/DC12V series light source	
			23: AC/DC24V		As TL-50 AC/DC24V series light source	
			26: AC/DC110V		As TL-50 AC/DC110V series light source	
			31: AC220V		As TL-50 AC220V series light source	
LED		TL-50L1/□■	22: AC/DC12V	r: red g: green y: yellow b: blue w: white	As TL-50 AC/DC12V series light source	
			23: AC/DC24V		As TL-50 AC/DC24V series light source	
			25: AC/DC48V		As TL-50 AC/DC110V series light source	
					As TL-50 AC220V series light source	

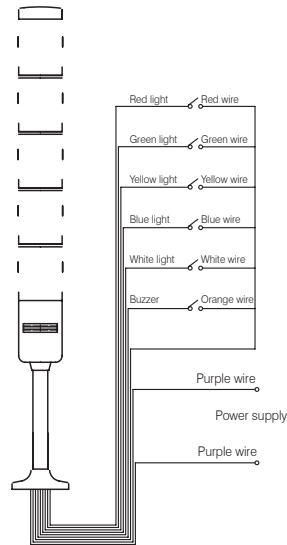
Note: Fill the color in the blank “ □ ”. Remark the voltage class code in “ ■ ”

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Wiring diagram



Permanent



Flashing

Dimension

