Light Source of Warning Light/Signal Light

SELECTION OF WARNING LIGHT

The selection of signaling devices will depend on the particular situation and environment.

- · Whether the location of installation is dark or bright.
- · Whether the signal transmission range should be short or long, or should have good visibility.
- · Whether you need an economical but short lifetime product or upscale product with longer lifetime.
- \cdot Whether the environment is harsh with vibration and shock, or the environment is stable so that the life of the lights can be guaranteed.
- \cdot Whether it hugely or lightly affects ongoing task and safety when light source(bulb) of beacon is damaged at once.

01

Purpose

FACTORS TO CONSIDER IN SIGNAL SELECTION

| 01 | 02 | | 03 | 04 | 05 |
|---------|---------------------|---|-------------|--------|---------------------|
| Purpose | Signal transmission | / | Environment | Budget | Ease of maintenance |





TYPE OF LIGHT SOURCE

Bulb

Light bulb is a light source that uses temperature reflection generated by the current flowing through the light bulb filament (thin line of metal), tungsten wire coil filament is often used. The hot filament is protected from oxidation with a glass sphere injected with inert gas (Argon gas, etc.). Typical characteristics of the gas injected bulb is described below.

- 1. When operating voltage is 10% lower than bulb's rated voltage, lifespan of product is quadrupled and power consumption is reduced to 85%.
- 2. On the contrary, when the operating voltage rises by 10%, lifespan of product becomes extremely short by 30% compared to the standard lifespan of a standard bulb (approx. 1,000 to 1,500 hours), and the power consumption rises by 16%. On the other hand, the brightness increases by 40%.

LED

The LED is a light emitting diode which emits light by injecting a current in the PN junction of the special semiconductor, semiconductors such as GaAs, GaP that Maximizes the electro-optical conversion effects are used. Like other semiconductors, over-voltage or ambient temperature affects the lifetime, but due to the absence of mechanical abrasion of the part, LED is shock/ vibration resistant so there is no need for proper seismic design. The standard service life of an LED is about 50,000 hours.

Xenon Lamp

Xenon lamp is a flash type light source that emits bright light instantly by inserting high energy into the lamp. Compared with the steady type lamp, xenon lamps need a lot of input power instantly and a extremely large amount of light it is diffused.

The lamp is filled with xenon(Xe) gas due to the convenience of the production(choice of materials), its use, xenon lamp was named after the xenon gas that it uses. xenon lamps are also resistant to vibration due to its mounting method. In addition, it is visible even in bright environments not only because the spectacle distribution of the visible light is close to the sunlight, it uses the same method as the strobe of the camera.

