

This leaflet is a light edition which summarizes the contents depending on the light source and operational type based on our total catalogue. The total catalogue will be provided upon request from the nearest distributor or sales division in head office.

SIMPLE CATALOGUE 2017 *Innovation in*
ALARM & SIGNAL



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New Products

Warning/ Signal/ Stackable Lights **8**

We produce a diverse portfolio of xenon and LED warning/ signal/ stackable light products that vary in size from 50mm to 180mm in diameter. The xenon and LED filaments are used to improve the lifetime and brightness of the products.



Signal Lights & Electric Horns/ Speakers **14**

Excellent products that provide visual signals and audible sound. These products recently added an SDcard slot which allows users to input their own sound suitable for their application condition.



Heavy-Duty Warning Lights / Horns **16**

Products for vessels, heavy-duty, and heavy equipment require anti-vibration, corrosion, and waterproof qualities. Qlight's products are compliant with ABS, LR, CCS, KR, CE certifications.



Explosion Proof Warning Lights / Horns **21**

Explosion proof products are used in places such as offshore plants, petrochemical plants and gunpowder factories where lingering explosive gas/chemicals pose a higher risk for fire and explosion.

Qlight produces products which are compliant to IECEx, ATEX, NEPSI, KGS, KOSHA standards.



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Warning Light Bars 23

Warning light bars require various shapes and sizes depending on the vehicle and purpose. Qlight's products can meet varying requirements due to the modular design of the light bar.



Aviation Obstruction Lights 23

Aviation obstruction lights are placed in high locations that can be costly for repair and inspection. Qlight's products use LED lights which provide long lasting durability and are virtually maintenance free. Qlight's products can meet the mid, low brightness and flame proof standards.



Signal Tower Lights 24

Signal tower lights can be used for a wide variety of industries and environments that require the transmission of visual and audible signals. Qlight tower lights are available in a number of shapes and also offer options for built-in sounds and melodies.



Special-Controlled LED Tower Lights 29

Qlight offers three types of special-controlled LED tower lights - Ethernet LED tower lights controlled and connected remotely by TCP/IP Ethernet through Internet or LAN, USB interfaced LED tower lights connected and powered by a PC's USB port, and wireless LED tower lights controlled by a PC that can interlock up to 620 devices through wireless mesh network. All special-controlled tower lights are available with built-in buzzer type and electric horn combination type and you can choose the size of tower lights ranging from Ø45mm to Ø80mm.



Electronic Horns/ Speakers/ Motor Sirens 32

Electric horn products include 7 warning sounds, 13 melodies, and 30 MP3 sounds (via multiple channels) built-in. Products with the MP3 option allow users to input the proper sound for their working condition and environment.



Industrial LED Lights 34

Qlight produces industrial LED work lights for machine tools that are durable and water-proof. These industrial work lights can also be used in distribution panels and are IP67/ IP69K compliant for high pressure water cleaning environments.



Company Introduction



Qlight Gives You a Brighter Future!

As equipment and industrial processes become more automated and diversified, the demand for a diverse portfolio of products and focused expertise in the field of signaling devices has grown dramatically. Since its founding in 1986, Qlight has developed into a dominant force in the industry and is recognized as the leading specialist in signaling devices. We have built a flexible production system capable of building a variety of products to fit the expansive application needs of our growing customer base. With the introduction of LED light sources in our products in 1993, more than 450 of our products have been used in various industries and applications such as semi-conductors, automotive, unmanned automation equipment, iron/steel, shipbuilding, marine plants, and petrochemical plants. In recent years, we have innovated further by developing products such as our specially controlled (USB, Ethernet, wireless) multifunctional tower lights and multichannel electric signal horns with MP3 input which provide our customers with smart solutions to complex signal transmission systems. In addition, through our rigorous attention to detail and implementation of robust inspection systems we pride ourselves in provid-

ing products with superior technology and quality. We currently have certification in 22 organizations such as IECEx, ATEX, NEPSI, CCS, CE, UL and continue to expand our certifications in accordance to industry needs.

Qlight is differentiated by focusing on a diverse product portfolio and quick delivery times. We employ an enterprise resource planning (ERP) system, a high-efficiency supply chain management (SCM) system, a cell based production system, and a flexible customer-centric production management system to meet the needs of our customers. Our established local corporations in China and South Korea, sales branches in Japan and the United States, and a global service network provides a distribution and sales system servicing over 40 countries. Through the organic collaboration between our production and distribution centers, we offer services that are appropriate to the situation of each country, industrial environment, and market. Qlight strives to continue our efforts as an industry leading company by developing new technologies that can contribute to improving industrial efficiency through improved customer relationships.



Qlight Global Networks

Country	Company name	Address	Phone
Korea	Qlight Co., Ltd.	185-25, Mukbang-Ro, Sangdong-Myeon, Gimhae-si, Gyeongsangnamdo, Korea	+82-55-328-4082
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Qlight Clients Heavy industry / Ship building / Automotive / Steel / Machinery / Petrochemical / Power plants / Electronics / Semiconductor / Emergency Vehicles



Company History

Qlight has been striving to accomplish our mission to provide visual and audible status indicating systems and solutions to enhance our customer's work safety and efficiency for the last three decades.



- 2016** 09 QMFL300-Ex LED Work Light Acquired KGC Safety Certificate
- 07 Acquired ICAO (International Civil Aviation Organization) certificate for low intensity LED aviation obstruction lights (SAOL2)
- 02 Qlight's New Innovative UL-Listed QMPS Series Smart Electric Horn Now available
- 02 Obtained UL certificate for LED signal lights Q series
- 02 Obtained the patent for "Bar style LED work lights" (Patent # : 10-1598123)
- 2015** 12 The second headquarter factory built
- 06 Limit switch models (3 items including SW2TS) acquired certificates from RMRS
- 03 LED Work lights (QML150/250, QMFL 500/600) UL listed
- 2014** 10 Established the Qlight USA, Inc. in San Jose, CA.
- 09 Horn which that emits light patented (Patent # : 10-1452447)
- 08 LED strobe light with multi-lens patented (Patent # : 10-1444391)
- 08 Explosion Proof product family including SNE, SNES, SESA, SEA, SPNA acquired IECEx certificates
- 01 Non-Sparking Explosion Proof tower lights including ST45ML and STB45ML acquired KGS and NEPSI certificates
- 2013** 01 Portable warning lights for agricultural machine applications patented (Patent # : 10-1226959)
- 2012** 12 Explosion Proof warning lights (SNE, SNES) acquired CCS Certificates
- 09 LED work light with cylindrical lens attached patented (Patent # : 10-1219020)
- 09 Explosion Proof warning lights (SESA, SEA, SPNA) and heavy duty warning lights (SH1, SED, SEWN30) certified by CCS
- 01 LED warning light with LED reflector patented (Patent # : 10-1108102)
- 2011** 11 SNE, SNES certified by NEPSI, SNE, SNES, SESA, SEA, SPNA certified by KOSHA
- 08 KCC (Korea Communications Commission) certificate acquired
- 07 Light equipment applying prism system patented (Patent # : 10-1051056)
- 07 ATEX certificate acquired for PC controlled tower light (ST56EL-ETN)
- 2010** 05 QEB certified by KIMM
- 05 LED warning light, bulb revolving warning light patented (Patent # : 10-0961472)
- 2009** 12 SSEL certified by KIMM
- 12 LED tower lights compliant with the RoHS Directive
- 2008** 04 Motor drive system patented (Patent # : 20-0439536)
- 03 LED revolving type lens patent acquired (patent # :10-0808669)
- 2007** 11 Explosion Proof electric horn (SPNA) acquired NEPSI certificates
- 05 Tower light models including ST45, ST56,ST80) UL listed
- 2005** 07 Heavy duty products for vessel applications acquired Lloyd's (UK's Maritime Classification Society) certificates
- 04 ABS certificates acquired for 18 products including SH1
- 2004** 06 ISO 9001:2000 certificates acquired
- 2001** 02 Established Shanghai Qlight Electronic Co.,Ltd. in China
- 2000** 07 Established Qlight Limited
- 1993** 11 Nominated for developing domestic Explosion Proof warning lights by Korean Ministry of Science & Technology
- 1988** 03 Developed limit switches for vessel applications
- 1986** 07 Established Qlight

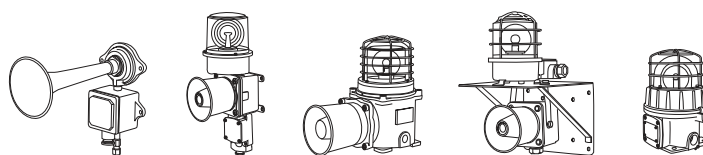
Application Areas

Qlight's products are used in a wide range of industries. With our various product families, we offer a wide selection of products appropriate for every facility and working condition.



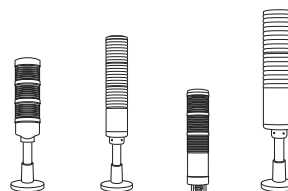
Shipbuilding Industry

Explosion proof products have the durability, enclosed structure, and corrosion resistance features to protect it from dangerous situations in ships or manufacturing plant environments.



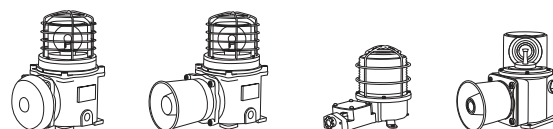
Semiconductor Manufacturing Equipment

Semiconductor manufacturing equipment has a high automation utilization rate and for that reason its operating condition is monitored by signaling devices. In this case, signal tower lamps are typically used. On the other hand, for places/ equipment that use ultra-high purity gases in its process (for example gas cabinets), non sparking explosion proof signal tower lamps are used.



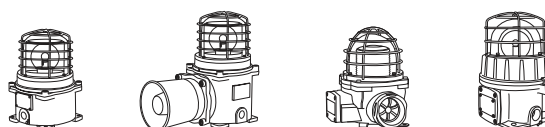
Offshore Plant

For offshore oil and gas rigs in the ocean, safety is a priority. In order to maintain safe and stable operating conditions, Heavy-duty products are often selected because of its shock/ corrosion/water resistance features.



Petrochemical Plant

Places such as petrochemical plants and gunpowder factories where explosive gas is ubiquitous and has a higher risk of fire and explosion. Explosion proof signaling devices are often used in order to ensure proper safety in these hazardous locations.

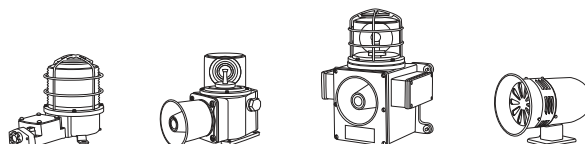


Application Areas



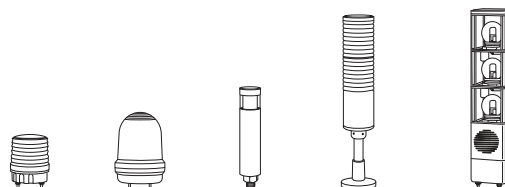
Steel Industry

Steel mills have high-risk of an accidents due to its 24-hour a day operation in high-temperature environments. Various warning lights and alarms are installed to ensure safety, mostly heavy-duty products that have high resistance to vibration and shock are used in this application area.



Unmanned Automation Equipment

Various audio-visual signaling devices are used in locations where unmanned automated machines are in operation. They are used to notify the current status of the manufacturing process/ equipment. With our products, operators can quickly respond to any situation.



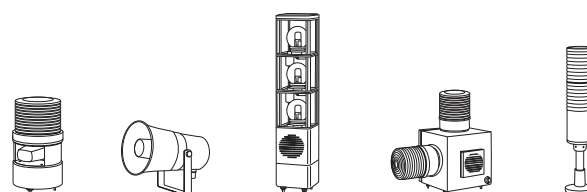
Machine Tools

It is often difficult to monitor the operating status inside a machine tool. Therefore, signal tower lamps with auditory tones are mainly used and mounted outside the machine tool to help notify the user of its operating status. On the other hand, work lights installed inside the machine help with visibility inside the tool and require high durability and resistance to oil. Qlight has LED work lights for machine tools that are suitable for IP69K environments.



Automotive Industry

Manufacturing efficiency drops significantly when a failure occurs in a working line of a automobile plant. A signaling system is valuable in tracking the status of the equipment in order to provide immediate response to the situation or problem.

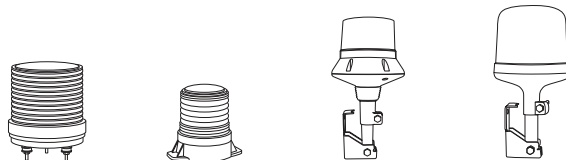


Application Areas



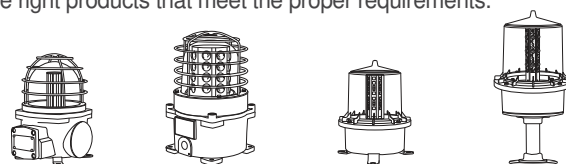
Industrial Vehicles, Construction Machinery

Industrial vehicles such as forklifts, excavators, and wheel loaders use warning lights to warn people from getting close to the vehicles. Industrial vehicles and construction machinery are exposed to harsh environments such as heavy vibration/shock. Therefore, these products require high durability and superior weather resistance.



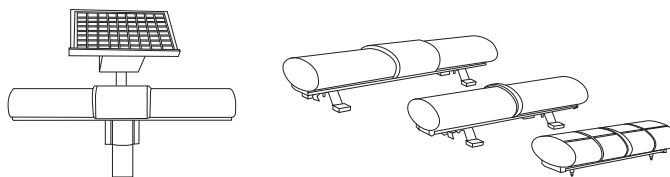
Obstruction Lights

It is mandatory to install obstruction lights on structures likely to interfere with the flight path and safety of an aircraft. Since these product specifications are defined by each government's aviation regulatory bodies, users must select the right products that meet the proper requirements.



Road Safety and Emergency Vehicles

Installed in vehicles such as police cars, ambulances and tow trucks to ensure safety. Also installed in hazardous areas such as steep slopes to warn drivers to drive safely in dangerous areas.



Specification List for Revolving Warning/ Signal Lights

LED Revolving Warning Lights



Model number	S60LR	S80DR	S80LR	S80DRK	S80LRK	S80ADR	S80ALR
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø70	Ø83	Ø83	Ø84	Ø84	Ø83
	Height	121	131	133	153	155	125
	Depth	-	-	-	-	-	113
Volume	-	Max. 90dB at 1m	Max. 90dB at 1m	-	-	Max. 90dB at 1m	Max. 90dB at 1m
Material	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
Mount bracket	Self stand	Self stand	Self stand	Mount bracket	Mount bracket	Wall mount	Wall mount
Protection rating	IP44	IP44	IP44	IP44	IP44	IP44	IP44
Certificates							
Customization	Wall mount	Wall mount	Wall mount	Pole mount	Pole mount	-	-



Model number	S100LR	S100MLR	S125LR	S125MLR	SKMPLR	SKLR	SKMLR
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V	DC12V, DC24V	DC12V, DC24V	DC12V, DC24V
Dimension (mm)	Diameter	Ø101	Ø101	Ø119	-	-	-
	Height	152	149	158	161	142	135
	Depth	-	-	-	-	185(Length)	183(Length)
Volume	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	-	-	-
Material	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-PC
Mount bracket	Self stand	Detachable magnet	Self stand	Detachable magnet	Detachable magnet	Self stand	Detachable magnet
Protection rating	IP44	IP54	IP44	IP54	IP54	IP54	IP54
Certificates							
Customization	Wall mount 2 tones buzzer S100DR, S100RLR	AC type	Wall mount 2 tones buzzer S125RLR	AC type	Oval-shaped Rubber Magnet	-	-



Model number	S150ULR	S150ULR-FT	S150RLR	S150RLR-FT
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø138	Ø138	Ø140
	Height	193	196	189
	Depth			194
Volume	Max. 90dB at 1m	Max. 90dB at 1m	-	-
Material	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ST5	Lens-PC Housing-ST5
Mount bracket	Self stand	Mount bracket	Self stand	Mount bracket
Protection rating	IP44	IP44	IP44	IP44
Certificates				
Customization	2 tones buzzer	2 tones buzzer	-	-

Specification List for Revolving Warning/ Signal Lights

LED Steady/ Flashing Signal Lights



Model number	Q60L	Q60LW	Q60LP	Q80L	Q80LW	Q80LP
Voltage	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V
Dimension (mm)	Diameter	Ø69	Ø69	Ø83	Ø83	Ø83
	Height	100	129	334	120	157
	Depth	-	107	-	-	114
Volume	Max. 80dB at 1m	Max. 80dB at 1m	Max. 80dB at 1m	Max. 80dB at 1m	Max. 80dB at 1m	Max. 80dB at 1m
Material	Lens-PC Housing-ABS	Lens-PC Housing-ABS Mount-PC	Lens-PC Housing-ABS Pole-Al	Lens-PC Housing-ABS	Lens-PC Housing-ABS Mount-PC	Lens-PC Housing-ABS Pole-Al
Mount bracket	Self stand	Wall mount	Pole mount	Self stand	Wall mount	Pole mount
Protection rating	IP65	IP65	IP65	IP65	IP65	IP65
Certificates	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL
Customization	-	-	Customized pole length available	-	-	Customized pole length available



Model number	Q100L	Q100LW	Q100LP	Q125L	Q125LW	Q125LP
Voltage	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V
Dimension (mm)	Diameter	Ø97	Ø97	Ø97	Ø116	Ø116
	Height	136	173	294	155	192
	Depth	-	121	-	-	130
Volume	Max. 80dB at 1m	Max. 80dB at 1m	Max. 80dB at 1m	Max. 80dB at 1m	Max. 80dB at 1m	Max. 80dB at 1m
Material	Lens-PC Housing-ABS	Lens-PC Housing-ABS Mount-PC	Lens-PC Housing-ABS Pole-Al	Lens-PC Housing-ABS	Lens-PC Housing-ABS Mount-PC	Lens-PC Housing-ABS Pole-Al
Mount bracket	Self stand	Wall mount	Pole mount	Self stand	Wall mount	Pole mount
Protection rating	IP65	IP65	IP65	IP65	IP65	IP65
Certificates	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL
Customization	-	-	Customized pole length available	-	-	Customized pole length available

Multiple Function LED Signal Lights



Model number	MFL60	MFL80	MFL100	MFL125
Voltage	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V	DC12V-24V AC110V-220V
Dimension (mm)	Diameter	Ø69	Ø83	Ø97
	Height	100	120	136
	Depth	-	-	-
Volume	Max. 80dB at 1m	Max. 80dB at 1m	Max. 80dB at 1m	Max. 80dB at 1m
Material	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS
Mount bracket	Self stand	Self stand	Self stand	Self stand
Protection rating	IP65	IP65	IP65	IP65
Certificates	CE	CE	CE	CE
Customization	Wall mount	Wall mount	Wall mount	Wall mount

Multiple Color LED Signal Lights



Model number	SWTC	SWTCE
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø90(Half)
	Height	216
	Depth	46
Volume	Max. 90dB at 1m	Max. 90dB at 1m
Material	Lens-PC Housing-ABS	Lens-PC Housing-ABS
Mount bracket	Wall mount	Wall mount
Protection rating	IP55	IP55
Certificates	CE	CE
Customization	Color combination except for standard, 2 tones buzzer	Color combination except for standard, 2 tones buzzer
Transistor	NPN type	NPN type

Specification List for Revolving Warning/ Signal Lights

Bulb Revolving Warning Lights



Model number	S60R	S80R	S80U	S80RK	S80UK	S80AR	S80AU
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø70	Ø83	Ø83	Ø84	Ø84	Ø83
	Height	121	131	133	153	155	125
	Depth	-	-	-	-	-	113
Volume	-	Max. 90dB at 1m	Max. 90dB at 1m	-	-	Max. 90dB at 1m	Max. 90dB at 1m
Material	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
Mount bracket	Self stand	Self stand	Self stand	Mount bracket	Mount bracket	Wall mount	Wall mount
Protection rating	IP44	IP44	IP44	IP44	IP44	IP44	IP44
Certificates	CE	CE	-	-	-	-	-
Customization	Wall mount	Wall mount	Wall mount	Pole mount	Pole mount	-	-



Model number	S100R	S100U	S100UA	S100M	S125R	S125U	S125M
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V
Dimension (mm)	Diameter	Ø101	Ø101	Ø101	Ø119	Ø119	Ø119
	Height	149	152	155	149	161	161
	Depth	-	-	-	-	-	-
Volume	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m
Material	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
Mount bracket	Self stand	Self stand	Self stand	Detachable magnet	Self stand	Self stand	Detachable magnet
Protection rating	IP44	IP44	IP44	IP54	IP44	IP44	IP54
Certificates	CE	-	-	-	CE	-	-
Customization	Wall mount Efficient product (S100E), FT Bracket equipped	Wall mount 2 tones buzzer Dome type lens (S100UR)	Wall mount 2 tones buzzer	AC type	Wall mount Efficient product (S125E), FT Bracket equipped	Wall mount 2 tones buzzer	AC type



Model number	SK/ SKH	SKM/ SKMH	SKMP/ SKMPH	S150U	S150U-FT	S150R	S150R-FT
Voltage	DC12V, DC24V	DC12V, DC24V	DC12V, DC24V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Diameter	-	-	Ø138	Ø138	Ø140	Ø140
	Height	135	138	142	193	196	189
	Depth	183(Length)	183(Length)	185(Length)	-	-	-
Volume	-	-	-	Max. 90dB at 1m	Max. 90dB at 1m	-	-
Material	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-STTS	Lens-PC Housing-STTS
Mount bracket	Self stand	Detachable magnet	Detachable magnet	Self stand	Mount bracket	Self stand	Mount bracket
Protection rating	IP54	IP54	IP54	IP44	IP44	IP44	IP44
Certificates	-	-	-	-	-	CE	CE
Customization	-	-	Oval-shaped rubber magnet	2 tones buzzer	2 tones buzzer	-	-

Specification List for Revolving Warning/ Signal Lights

Bulb Revolving Warning Lights



Model number	S180R	S180R-FT	S180U	SR	SRP	SJ	SJP
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø176	Ø176	Ø83	Ø83	□95×95	□95×95
	Height	206	210	216	162-350	363-551	183-375
	Depth	-	-	Max. 90dB at 1m	-	-	Max. 90dB at 1m
Material	Lens-AS Housing-ST5	Lens-AS Housing-ST5	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
Mount bracket	Self stand	Mount bracket	Self stand	Self stand	Pole mount	Self stand	Pole mount
Protection rating	IP44	IP44	IP44	IP44	IP44	IP44	IP44
Certificates	-	-	-	-	-	CE	CE
Customization	-	-	2 tones buzzer Mount hole PCD 120mm	4 layers, Color combination except for standard	4 layers, Color combination except for standard	2 tones buzzer 4 layers, Color combination except for standard	2 tones buzzer 4 layers, Color combination except for standard

LED Steady/ Flashing Signal Lights



Model number	S50L	S60L	S80L	S80LK	S80AL	S100L	S125L
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø50	Ø70	Ø83	Ø84	Ø83	Ø101
	Height	60	121	133	155	127	152
	Depth	-	-	-	-	113	-
Volume	-	-	Max. 90dB at 1m	-	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m
Material	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
Mount bracket	Self stand	Self stand	Self stand	Mount bracket	Wall mount	Self stand	Self stand
Protection rating	IP44	IP44	IP44	IP44	IP44	IP44	IP44
Certificates	-	-	CE	-	-	CE, KIMM	CE, KIMM
Customization	Wall mount	Wall mount	Wall mount	Pole mount	-	Wall mount 2 tones buzzer	Wall mount 2 tones buzzer
Transistor							

Specification List for Revolving Warning/ Signal Lights

LED Steady/ Flashing Signal Lights/ Stackable Lights



Model number	SKTL	SKTLB	SKTLM	SKTLBM	S150UL	S150UL-FT	S150RL	S150RL-FT
Voltage	DC12V, DC24V	DC12V, DC24V	DC12V, DC24V	DC12V, DC24V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Diameter	□105×105	□105×105	□105×105	□105×105	Ø138	Ø138	Ø140
	Height	98	98	90	90	193	196	189
	Depth							
Volume	-	Max. 105dB at 1m	-	Max. 105dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	-	-
Material	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-STTS	Lens-PC Housing-STTS
Mount bracket	Self stand	Self stand	Detachable magnet	Detachable magnet	Self stand	Mount bracket	Self stand	Mount bracket
Protection rating	IP66	IP66	IP66	IP66	IP44	IP44	IP44	IP44
Certificates								
Customization	-	-	Color combination except for standard	Color combination except for standard	2 tones buzzer	2 tones buzzer	-	-



Model number	S80SOL	S100SOL	S125SOL	SRL	SRLP	SJL	SJLP	S125TL
Voltage	DC2.4V	DC2.4V	DC2.4V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø83	Ø101	Ø119	Ø83	Ø83	□95×95	□95×95
	Height	133	152	158	162-350	363-551	183-375	387-579
	Depth							
Volume	-	-	-	-	-	Max. 90dB at 1m	Max. 90dB at 1m	-
Material	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
Mount bracket	Self stand	Self stand	Self stand	Self stand	Pole mount	Self stand	Pole mount	Self stand
Protection rating	IP65	IP65	IP65	IP44	IP44	IP44	IP44	IP44
Certificates	CE	CE	CE	-	-	-	-	-
Customization	Wall mount Magnet mount	Wall mount Magnet mount	Wall mount Magnet mount	-	-	2 tones buzzer	2 tones buzzer	Color combination except for standard, Strobe type(S125TS)
Transistor	-	-	-	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type

Specification List for Revolving Warning/ Signal Lights

Multiple Color LED Signal Lights



Model number	SMCL80	SMCL100	SMCL125	QMCL60	QMCL80	QMCL100	QMCL125
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V	DC12V, DC24V	DC12V, DC24V	DC12V, DC24V
Dimension (mm)	Diameter	Ø83	Ø101	Ø119	Ø69	Ø83	Ø97
	Height	132	152	158	80	85	95
	Depth						
Volume	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 80dB at 1m	Max. 80dB at 1m	Max. 80dB at 1m	Max. 80dB at 1m
Material	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
Mount bracket	Self stand	Self stand	Self stand	Self stand	Self stand	Self stand	Self stand
Protection rating	IP44	IP44	IP44	IP65	IP65	IP65	IP65
Certificates	CE	CE	CE	CE	CE	CE	CE
Customization	Wall mount Color combination except for standard	Wall mount Color combination except for standard	Wall mount Color combination except for standard	Wall mount	Wall mount	Wall mount	Wall mount
Transistor	NPN type	NPN type	NPN type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type

LED Strobe Signal Lights



Model number	S80NS	S80LS
Voltage	DC12V-24V	DC12V-24V
Dimension (mm)	Diameter	Ø83
	Height	111
	Depth	-
Volume	-	-
Material	Lens-PC Housing-ABS+GF	Lens-PC Housing-ABS
Mount bracket	Self stand	Self stand
Protection rating	IP66	IP65
Certificates	-	CE, UL
Customization	-	-

Xenon Lamp Strobe Signal Lights



Model number	S80S	S80SM	S80AS	S100S	S100SM
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V
Dimension (mm)	Diameter	Ø83	Ø83	Ø83	Ø101
	Height	106	106	127	113
	Depth	-	-	113	-
Volume	-	-	Max. 90dB at 1m	-	-
Material	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
Mount bracket	Self stand	Detachable magnet	Wall mount	Self stand	Detachable magnet
Protection rating	IP54	IP54	IP44	IP54	IP54
Certificates	CE	-	-	CE, KIMM	-
Customization	Wall mount	AC type	Dome type lens	Wall mount	AC type



Model number	S125S	S125SM	S150US	S150US-FT	S150RS	S150RS-FT	S180US/ S180UHS
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø123	Ø138	Ø138	Ø140	Ø140	Ø186
	Height	125	123	193	196	189	194
	Depth						
Volume	-	-	Max. 90dB at 1m	Max. 90dB at 1m	-	-	Max. 90dB at 1m
Material	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ST5	Lens-PC Housing-ST5	Lens-ABS Housing-ABS
Mount bracket	Self stand	Detachable magnet	Self stand	Mount bracket	Self stand	Mount bracket	Self stand
Protection rating	IP54	IP54	IP44	IP44	IP44	IP44	IP44
Certificates	CE	-	-	-	-	-	-
Customization	Wall mount	AC type	2 tones buzzer, High brightness (S150UHS)	2 tones buzzer, High brightness (S150UHS-FT)	High brightness (S150RHS)	High brightness (S150RHS-FT)	2 tones buzzer, Mount hole PCD 120mm

Reference for Warning/ Signal Lights & Electric Horns



Model number	S60AD	QWTD	QAD80H	QAD80BZ	QAD100H	QAD100BZ
Voltage	DC12V, DC24V AC110V, AC220V	AC/DC12V, AC/DC24V AC110V-AC220V	DC12V-24V	DC12V, DC24V	DC12V-24V AC110V-220V	DC12V, DC24V AC110V-220V
Dimension (mm)	Diameter	Ø70	Ø70	Ø83	Ø83	Ø97
	Height	233	154-318	198	198	215
	Depth	86	76	93	93	109
Material	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS
Lamp & Operation	Bulb Steady/Flashing	•				
	Bulb Revolving					
	LED Revolving					
	LED Steady/Flashing	•	•	•	•	•
	LED Strobe					
Sound & Volume	LED Simulated revolving					
	Xenon lamp strobe	•				
	High Buzzer	Max. 100dB at 1m			Max. 105dB at 1m	Max. 105dB at 1m
	5 Signal sounds		Max. 85dB at 1m			
	Voice			Max. 100dB at 1m		
30 signal sounds				Max. 100dB at 1m		
31 signal sounds					Max. 95dB at 1m	
MP3						
Mount type	Wall mount	Wall mount	Wall mount	Wall mount	Wall mount	Wall mount
IP	IP54	IP54	IP65	IP65	IP65	IP65
Certificates	CE	CE	CE, UL	CE, UL	CE, UL	CE, UL
Customization	2 tones buzzer	2 tones buzzer, Color combinations except for standard	-	-	-	-
transistor	-	NPN Type	NPN Type	-	NPN Type	-



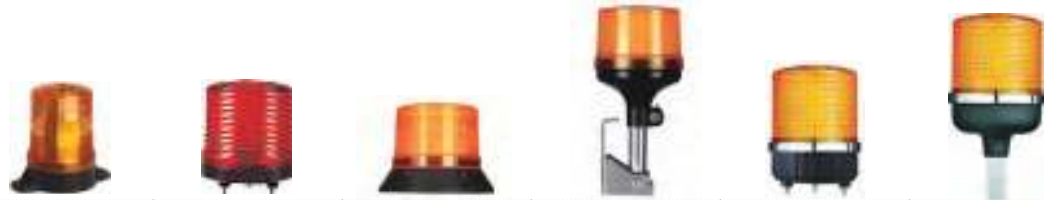
Model number	QAD125H	QAD125BZ	QWCD35	QWCD50	SJD
Voltage	DC12V-24V AC110V-220V	DC12V, DC24V AC110V-220V	DC12V-DC24V AC110V-220V	DC12V, DC24V AC110V-220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø116	Ø116	136×179	168×222
	Height	244	244	-	-
	Depth	132	132	126	163
Material	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Horn-PC Housing-ABS	Horn-PC Housing-ABS	Lens-AS Housing-ABS
Lamp & Operation	Bulb Steady/Flashing				•
	Bulb Revolving				
	LED Revolving				
	LED Steady/Flashing	•	•		
	LED Strobe			•	•
Sound & Volume	LED Simulated revolving				
	Xenon lamp strobe				•
	High Buzzer		Max. 105dB at 1m		
	5 Signal sounds				
	Voice				
30 signal sounds	Max. 115dB at 1m				
31 signal sounds			Max. 115dB at 1m	Max. 123dB at 1m	
MP3	Max. 100dB at 1m		Max. 113dB at 1m	Max. 118dB at 1m	
Mount type	Wall mount	Wall mount	Wall mount	Wall mount	Self stand
IP	IP65	IP65	IP66	IP66	IP23
Certificates	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL
Customization	-	-	External signal line	External signal line	Lens color expect for standard
transistor	NPN Type	-	NPN Type	NPN Type	NPN Type

Reference for Warning/ Signal Lights & Electric Horns



Model number	STD	S100D	S125D	STNDL	STND100	STND125	
Voltage	AC/DC12V, AC/DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	
Dimension (mm)	Diameter	Ø80(Globe) Ø119(Body)	Ø101(Globe) Ø119(Body)	Ø115(Globe) Ø119(Body)	Ø80(Globe) Ø119(Body)	Ø101(Globe) Ø119(Body)	Ø115(Globe) Ø119(Body)
	Height	232-512	226	215	267-547	261	250
	Depth	-	-	-	-	-	-
Material	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	
Lamp & Operation	Bulb Steady/Flashing	•			•	•	•
	Bulb Revolving		•	•			
	LED Revolving		•	•			
	LED Steady/Flashing	•	•	•	•	•	•
	LED Strobe						
Sound & Volume	LED Simulated revolving						
	Xenon lamp strobe		•	•			
	High Buzzer						
	5 Signal sounds	Max. 105dB at 1m	Max. 105dB at 1m	Max. 105dB at 1m			
	Voice	Max. 95dB at 1m	Max. 95dB at 1m	Max. 95dB at 1m			
MP3	30 signal sounds				Max. 105dB at 1m	Max. 105dB at 1m	Max. 105dB at 1m
	31 signal sounds						
	MP3				Max. 98dB at 1m	Max. 98dB at 1m	Max. 98dB at 1m
Mount type	Self stand	Self stand	Self stand	Self stand	Self stand	Self stand	
IP	IP54	IP54	IP54	IP54	IP54	IP54	
Certificates	CE	CE	CE	-	-	-	
Customization	Customized lens height	-	-	Customized lens height	-	-	
transistor	NPN Type	NPN Type	NPN Type	NPN Type	NPN Type	NPN Type	

Product Specification List for Vessels and Heavy-Duty Equipment/ Industrial Applications



Model number(Series)	QA70HLS	QA100HLS	QA115HLS	QA115HLSP	QA125HLS	QA125HLSP	
Voltage	DC12V-24V	DC12V-24V	DC12V-24V	DC12V-24V	DC12V-24V	DC12V-24V	
Dimension (mm)	Diameter	Ø72	Ø101	Ø107(Lens) Ø150(Housing)	Ø107(Lens) Ø117(Housing)	Ø123	Ø123
	Height	108	113	112	270	125	321
	Depth						
	Materials	Lens-PC Housing-ABS+GF	Lens-PC Housing-ABS	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-PC
Light source & Operation	Bulb Steady/Flashing						
	Bulb Revolving						
	LED Revolving						
	LED Steady/Flashing						
	LED Strobe	•	•	•	•	•	•
LED Simulated revolving							
Xenon Strobe							
Mounting type	Self stand	Self stand	Self stand	Pole mount	Self stand	Pole mount	
Cable entry							
Protection rating	IP66	IP66	IP66	IP66	IP66	IP66	
Certificates	CE	-	-	-	-	-	
Customization							
Transistor							



Model number(Series)	QA140HLSP	SH1	SH1P	SH1T	SH1TP	
Voltage	DC12V, DC24V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	
Dimension (mm)	Diameter	Ø140	Ø119(Lens)	Ø135(Cage)	Ø119(Lens) Ø135(Cage)	
	Height	325	168	178	168	178
	Depth	-	-	-	234(Length)	234(Length)
	Materials	Lens-PC Housing-PC	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al
Light source & Operation	Bulb Steady/Flashing					
	Bulb Revolving		•	•	•	
	LED Revolving		•	•	•	
	LED Steady/Flashing		•	•	•	
	LED Strobe	•				
LED Simulated revolving						
Xenon Strobe		•	•	•	•	
Mounting type	Pole mount	Self stand	Self stand	Self stand	Self stand	
Cable entry	-	1/2"PF	1/2"PF	1/2"PF	1/2"PF	
Protection rating	IP66	IP66	IP66	IP66	IP66	
Certificates	CE, E11	KIMM, ABS, CCS, CE	KIMM, ABS, CCS, CE	CE	CE	
Customization	-	Built-in cable gland, Cable entry : 3/4"PF	Built-in cable gland, Cable entry : 3/4"PF	Built-in cable gland, 2 ways terminal box, cable entry : 3/4"PF	Built-in cable gland, 2 ways terminal box, cable entry : 3/4"PF	
Transistor						

Product Specification List for Vessels and Heavy-Duty Equipment/ Industrial Applications



Model number(Series)	SH2	SH2P	SH2T	SH2TP	SSLW	SSLM
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø138(Lens)	Ø158(Cage)	Ø138(Lens)	Ø158(Cage)	Ø93
	Height	198	212	198	212	180-615
	Depth	-	-	250(Length)	250(Length)	43
	Materials	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al
Light source & Operation	Bulb Steady/Flashing					
	Bulb Revolving	•	•	•	•	
	LED Revolving	•	•	•	•	
	LED Steady/Flashing	•	•	•	•	•(Steady)
	LED Strobe					
	LED Simulated revolving Xenon Strobe	•	•	•	•	
Mounting type	Self stand	Self stand	Self stand	Self stand	Wall mount	Wall mount
Cable entry	1/2"PF	1/2"PF	1/2"PF	1/2"PF	M12-5PIN connector	M12-5PIN connector
Protection rating	IP66	IP66	IP66	IP66	IP68	IP68
Certificates	KIMM, ABS, CE	KIMM, ABS, CE	CE	CE	-	-
Customization	Built-in cable gland, Cable entry : 3/4"PF, Brass housing	Built-in cable gland, Cable entry : 3/4"PF, Brass housing	Built-in cable gland, 2 ways terminal box, Cable entry : 3/4"PF, Brass housing	Built-in cable gland, 2 ways terminal box, Cable entry : 3/4"PF, Brass housing	C10 cable	C10 cable
Transistor						



Model number(Series)	SED	SEDP	SD	SDP	SMD	SMDP
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø119(Lens)	Ø135(Cage)	Ø138(Lens)	Ø158(Cage)	Ø138(Lens)
	Height	380	390	410	424	462
	Depth	175	175	175	175	210
	Materials	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al
Light source & Operation	Bulb Steady/Flashing					
	Bulb Revolving	•	•	•	•	•
	LED Revolving	•	•	•	•	•
	LED Steady/Flashing	•	•	•	•	•
	LED Strobe					
	LED Simulated revolving Xenon Strobe	•	•	•	•	•
Sound pattern / dB	Hi buzzer					
	15 signal sounds	Max. 118dB at 1m	Max. 118dB at 1m	Max. 118dB at 1m	Max. 118dB at 1m	Max. 120dB at 1m
	Voice signal	Max. 113dB at 1m	Max. 113dB at 1m	Max. 113dB at 1m	Max. 113dB at 1m	Max. 115dB at 1m
	30 signal sounds 31 signal sounds MP3					
Mounting type	Wall mount	Wall mount	Wall mount	Wall mount	Wall mount	Wall mount
Cable entry	1/2"PF	1/2"PF	1/2"PF	1/2"PF	1/2"PF	1/2"PF
Protection rating	IP66	IP66	IP66	IP66	IP66	IP66
Certificates	CE, KIMM, KR, CCS, ABS	CE, KIMM, KR, CCS, ABS	CE, KR, KIMM, LR, ABS	CE, KR, KIMM, LR, ABS	-	-
Customization	Built-in cable gland, 2 ways terminal box, Cable entry : 3/4"PF, External signal sound line	Built-in cable gland, 2 ways terminal box, Cable entry : 3/4"PF, External signal sound line	Built-in cable gland, 2 ways terminal box, Cable entry : 3/4"PF, External signal sound line, Brass housing	Built-in cable gland, 2 ways terminal box, Cable entry : 3/4"PF, External signal sound line, Brass housing	Built-in cable gland, 2 ways terminal box, Cable entry : 3/4"PF, External signal sound line, Brass housing	Built-in cable gland, 2 ways terminal box, Cable entry : 3/4"PF, External signal sound line, Brass housing
Transistor	NPN type	NPN type	NPN type	NPN type	NPN type	NPN type

Product Specification List for Vessels and Heavy-Duty Equipment/ Industrial Applications



Model number(Series)	SCDF	SCDW	SHD	SHDP	SHD2	SHD2P	
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	
Dimension (mm)	Diameter	Ø140(Cage)	Ø140(Cage)	Ø119(Lens)	Ø135(Cage)	Ø119(Lens)	Ø135(Cage)
	Height	322	313	227	237	227	237
	Depth	167(Length)	177	255(Length)	255(Length)	343(Length)	343(Length)
Materials	Lens-PC Housing-PC+GF	Lens-PC Housing-PC+GF	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al	
Light source & Operation	Bulb Steady/Flashing						
	Bulb Revolving	•	•	•	•	•	•
	LED Revolving	•	•	•	•	•	•
	LED Steady/Flashing	•	•	•	•	•	•
	LED Strobe						
LED Simulated revolving							
Xenon Strobe	•	•	•	•	•	•	
Hi buzzer							
Sound pattern / dB	15 signal sounds	Max. 118dB at 1m	Max. 118dB at 1m	Max. 118dB at 1m	Max. 118dB at 1m	Max. 118dB×2 at 1m	Max. 118dB×2 at 1m
	Voice signal	Max. 113dB at 1m	Max. 113dB at 1m	Max. 113dB at 1m	Max. 113dB at 1m	Max. 113dB×2 at 1m	Max. 113dB×2 at 1m
	30 signal sounds						
	31 signal sounds						
MP3							
Mounting type	Self mount	Wall mount	Self mount	Self mount	Self mount	Self mount	
Cable entry	1/2"PF	1/2"PF	1/2"PF	1/2"PF	1/2"PF	1/2"PF	
Protection rating	IP66	IP66	IP66	IP66	IP66	IP66	
Certificates	KIMM, KR, CE	KIMM, KR, CE	KIMM, ABS, CE	KIMM, ABS, CE	KIMM, ABS	KIMM, ABS	
Customization	Built-in cable gland, Cable entry : 3/4"PF, External signal sound line	Built-in cable gland, Cable entry : 3/4"PF, External signal sound line	Built-in cable gland, Cable entry : 3/4"PF, External signal sound line, Brass housing	Built-in cable gland, Cable entry : 3/4"PF, External signal sound line, Brass housing	Built-in cable gland, Cable entry : 3/4"PF, External signal sound line, Brass housing	Built-in cable gland, Cable entry : 3/4"PF, External signal sound line, Brass housing	
Transistor	NPN Type	NPN Type	NPN Type	NPN Type	NPN Type	NPN Type	



Model number(Series)	QWCD35	QWCD50	
Voltage	DC12V-DC24V AC110V-220V	DC12V, DC24V AC110V-220V	
Dimension (mm)	Diameter	136×179	168×222
	Height		
	Depth	126	163
Materials	Horn-PC Housing-ABS	Horn-PC Housing-ABS	
Light source & Operation	Bulb Steady/Flashing		
	Bulb Revolving		
	LED Revolving		
	LED Steady/Flashing		
	LED Strobe	•	•
LED Simulated revolving			
Xenon Strobe			
Hi buzzer			
Sound pattern / dB	15 signal sounds		
	Voice signal		
	30 signal sounds		
	31 signal sounds	Max. 115dB at 1m Max. 113dB at 1m	Max. 123dB at 1m Max. 118dB at 1m
MP3			
Mounting type	Wall Mount	Wall Mount	
Cable entry	Ø21	Ø21	
Protection rating	IP66	IP66	
Certificates	CE, UL	CE, UL	
Customization	External signal sound line	External signal sound line	
Transistor	NPN Type	NPN Type	

Product Specification List for Vessels and Heavy-Duty Equipment/ Industrial Applications



Model number(Series)	SC1	SC2	SC3	
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	
Dimension (mm)	Diameter	150(Width)	174(Width)	244(Width)
	Height	287	312	381
	Depth	200	232	292
	Materials	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-PC Housing-AL
Light source & Operation	Bulb Steady/Flashing	•	•	•
	Bulb Revolving	•	•	•
	LED Revolving	•	•	•
	LED Steady/Flashing	•	•	•
	LED Strobe	•	•	•
	LED Simulated revolving	•	•	•
	Xenon Strobe	•	•	•
Sound pattern / dB	Hi buzzer			
	15 signal sounds	Max. 108dB at 1m	Max. 115dB at 1m	Max. 120dB at 1m
	Voice signal	Max. 98dB at 1m	Max. 108dB at 1m	Max. 115dB at 1m
	30 signal sounds			
	31 signal sounds MP3			
Mounting type	Wall mount	Wall mount	Wall mount	
Cable entry	-	-	1/2"PF	
Protection rating	IP44	IP44	IP56	
Certificates				
Customization				
Transistor				



Model number(Series)	SANA200	SANA400	SANA700	QEB	
Voltage	DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC24V AC110V, AC220V	
Dimension (mm)	Diameter	Ø146(Horn)	Ø110(Horn)	Ø101(Horn)	120×120
	Height	222	222	222	-
	Depth	333	193	144	119
Materials	Horn-PC Solenoid Box-ABS	Horn-PC Solenoid Box-ABS	Horn-PC Solenoid Box-ABS	Housing, Cover-AL	
Volume	Max. 130dB at 1m	Max. 130dB at 1m	Max. 130dB at 1m	-	
Mounting type	Wall mount	Wall mount	Wall mount	Wall mount	
Cable entry	20C, 10C nipple(Air)	20C, 10C nipple(Air)	20C, 10C nipple(Air)	1/2" NPT, 10C nipple(Air)	
Protection rating	IP56	IP56	IP56	IP66	
Certificates	KIMM	KIMM	KIMM	KIMM	
Customization	Separate design between horn and solenoid box, Non return valve, Built-in Y filter	Separate design between horn and solenoid box Non return valve, Built-in Y filter	Separate design between horn and solenoid box, Non return valve, Built-in Y filter	Built-in Ex-Proof cable gland, 2 ways entries, Cable entry : 3/4" NPT	

Product Specification List for Vessels and Heavy-Duty Equipment/ Industrial Applications



Model number(Series)	QWH35	QWH50	SN	SEHN25	SEHN50	SEWN30E	
Voltage	DC12V-DC24V AC110V-220V	DC12V, DC24V AC110V-220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	
Dimension (mm)	Diameter	136×179	168×222	Ø119(Horn)	Ø158(Horn)	Ø167(Horn)	Ø120(Horn)
	Height						
	Depth	126	163	167(Length)	238(Length)	242(Length)	175
Materials	Horn-PC Housing-ABS	Horn-PC Housing-ABS	Housing-Steel	Housing-Steel	Housing-Steel	Housing-Steel	Housing-AI Horn Housing-PC
Sound pattern / dB	15 signal sounds			Max. 105dB at 1m	Max. 115dB at 1m	Max. 120dB at 1m	Max. 118dB at 1m
	Voice signal			Max. 95dB at 1m	Max. 108dB at 1m	Max. 115dB at 1m	Max. 113dB at 1m
	30 signal sounds						
	31 signal sounds	Max. 115dB at 1m	Max. 123dB at 1m				
MP3	Max. 113dB at 1m	Max. 118dB at 1m					
Mounting type	Wall mount	Wall mount	Self stand	Self stand	Self stand	Wall mount	
Cable entry	Ø21	Ø21	Ø10	Ø21	Ø21	1/2"PF	
Protection rating	IP66	IP66	IP55	IP55	IP55	IP56	
Certificates	CE	CE	KIMM	KIMM	KIMM	KIMM, ABS, CCS, CE	
Customization	-	-	External signal sound line	External signal sound line	External signal sound line	Built-in cable gland, Cable entry : 3/4"PF, External signal sound line, Brass housing	
Transistor	NPN type	NPN type	NPN type	NPN type	NPN type	NPN type	



Model number(Series)	SEWN30L	SEWN30T	SEWN50E	SEWN50L	SEWN50T	SHDN30	
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	
Dimension (mm)	Diameter	Ø120(Horn)	Ø120(Horn)	Ø172(Horn)	Ø172(Horn)	Ø120(Horn)	
	Height	-	223	-	-	272	134
	Depth	170(Length)	175	208	203(Length)	208	335(Length)
Materials	Housing-AI Horn Housing-PC	Housing-AI Horn Housing-PC	Housing-AI Horn Housing-ST316L	Housing-AI Horn Housing-ST316L	Housing-AI Horn Housing-ST316L	Housing-AI Horn Housing-PC	
Sound pattern / dB	15 signal sounds	Max. 118dB at 1m	Max. 118dB at 1m	Max. 120dB at 1m	Max. 120dB at 1m	Max. 120dB at 1m	Max. 118dB at 1m×2
	Voice signal	Max. 113dB at 1m	Max. 113dB at 1m	Max. 115dB at 1m	Max. 115dB at 1m	Max. 115dB at 1m	Max. 113dB at 1m×2
	30 signal sounds						
	31 signal sounds						
MP3							
Mounting type	Self stand	Wall mount	Wall mount	Self stand	Wall mount	Self stand	
Cable entry	1/2"PF	1/2"PF	1/2"PF	1/2"PF	1/2"PF	1/2"PF	
Protection rating	IP56	IP56	IP56	IP56	IP56	IP56	
Certificates	CE	CE	CE, KIMM, ABS	CE	CE	-	
Customization	Built-in cable gland, Cable entry : 3/4"PF, External signal sound line, Brass housing	Built-in cable gland, 2 ways terminal box, Cable entry : 3/4"PF, External signal sound line, Brass housing	Built-in cable gland, Cable entry : 3/4"PF, External signal sound line, Brass housing	Built-in cable gland, Cable entry : 3/4"PF, External signal sound line, Brass housing	Built-in cable gland, 2 ways terminal box, Cable entry : 3/4"PF, External signal sound line, Brass housing	Built-in cable gland, 2 ways terminal box, Cable entry : 3/4"PF, External signal sound line, Brass housing	External signal sound line, Cable entry : 3/4"PF
Transistor	NPN Type	NPN Type	NPN Type	NPN Type	NPN Type	NPN Type	



Model number(Series)	SM30	SM40	SM200	SM400	SAB130	SAB200	
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC24V AC110V, AC220V	
Dimension (mm)	Diameter	Ø77	Ø128	Ø143	Ø165	Ø130(Bell)	Ø200(Bell)
	Height	-	-	-	-	238	269
	Depth	82(Length)	162(Length)	231(Length)	284(Length)	107	107
Materials	Housing-Steel	Housing-ABS	Housing-Steel	Housing-Steel	Bell-Steel Housing-ABS	Bell-Steel Housing-ABS	
Volume	Max. 110dB at 1m	Max. 116dB at 1m	Max. 120dB at 1m	Max. 123dB at 1m	Max. 95dB at 1m	Max. 95dB at 1m	
Mounting type	Self stand	Self stand	Self stand	Self stand	Wall mount	Wall mount	
Cable entry	Ø22	Ø22	Ø9	Ø22	Ø26	Ø26	
Protection rating	IP44	IP44	IP44	IP44	IP56	IP56	
Certificates	-	-	CE	-	-	-	
Customization	-	-	-	-	2 ways cable entries	2 ways cable entries	

Explosion Proof Type Specification List



Model number(series)	ST45ML-Ex	QTEX	SNE	SE	SEA	SSEL
Voltage	AC/DC12V AC/DC24V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)						
Diameter	Ø45	Ø144	Ø152(Cage)	Ø155(Cage)	Ø167(Cage)	154×154
Height	114-278	472(Self stand) 457(Wall mount)	226	267	287	100
Depth	-	155(Wall mount)	189(Length)	189(Length)	172(Length)	172(Length)
Materials	Lens-PC Housing-PC	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Brass	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al
Light source & Operation						
Bulb Steady/Flashing			•	•	•	
Bulb Revolving			•	•	•	
LED Steady/Flashing	•(Steady)	•	•	•	•	•(Steady)
LED Strobe			•	•	•	
LED Simulated revolving			•	•	•	
Xenon Strobe			•	•	•	
Mount type	Self stand	Self stand, Wall mount	Self stand	Self stand	Self stand	Self stand
Cable entry	-	3/4" NPT	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT
Protection rating	IP54	IP66	IP66	IP66	IP66	IP66
Usage area	ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2
Certificates	NEPSI, KGS	IECEX	IECEX, ATEX, NEPSI, KIMM, KOSHA, CCS	KIMM, ABS	IECEX, ATEX, NEPSI, KIMM, KOSHA, ABS, CCS, KR	KIMM, ABS
Explosion proof rating	Ex nR II T4 (KGS)	Ex d IIC T6 Gb (IECEX)	Ex d IIC T6 Gb (IECEX)	Ex d IIC T6 (KIMM)	Ex d IIC T6 Gb (IECEX)	Ex d IIC T6 (KIMM)
Customization	-	Explosion proof cable gland, 2 ways cable entry, Cable entry	Explosion proof cable gland, 2 ways cable entry, Cable entry : M20x1.5	Explosion proof cable gland, 2 ways cable entry, Cable entry : 3/4" NPT, M20x1.5	Explosion proof cable gland, 2 ways cable entry, Cable entry : 3/4" NPT, M20x1.5, M25x1.5	Explosion proof cable gland, 2 ways cable entry, Cable entry : 3/4" NPT, M20x1.5, M25x1.5
Transistors	NPN/ PNP Type	PNP Type	-	-	-	-



Model number(series)	STB45ML-Ex	QTEXB	SNES	SESA	SEBA	SPNA
Voltage	AC/DC12V AC/DC24V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)						
Diameter	Ø45	Ø144	Ø152(Cage)	Ø167(Cage)	Ø167(Cage)	Ø134(Horn)
Height	153-317	472(Self stand) 457(Wall mount)	226	333	333	158
Depth	-	155(Wall mount)	189(Length)	327(Length)	240(Length)	327(Length)
Materials	Lens-PC Housing-PC	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al	Horn-STS316L Housing-Al
Light source & Operation						
Bulb Steady/Flashing			•	•	•	
Bulb Revolving			•	•	•	
LED Steady/Flashing	•(Steady)	•	•	•	•	
LED Strobe			•	•	•	
LED Simulated revolving			•	•	•	
Xenon Strobe			•	•	•	
1 tone Buzzer	Max. 80dB at 1m	Max. 102dB at 1m	Max. 105dB at 1m			
Sound Pattern / dB				Max. 118dB at 1m	Max. 95dB at 1m	Max. 118dB at 1m
15 signal sounds Bell				Max. 113dB at 1m		Max. 113dB at 1m
Voice signal						
30 signal sounds						
31 signal sounds MP3						
Mount type	Self stand	Self stand, Wall mount	Self stand	Self stand	Self stand	Self stand
Cable entry	-	3/4" NPT	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT
Protection rating	IP54	IP66	IP66	IP66	IP55	IP66
Usage area	ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2
Certificate	NEPSI, KGS	IECEX	IECEX, ATEX, NEPSI, KIMM, KOSHA, CCS	IECEX, ATEX, NEPSI, KIMM, KOSHA, ABS, CCS, KR	KIMM, ABS, KR	IECEX, ATEX, NEPSI, KIMM, KOSHA, ABS, CCS, KR
Explosion proof rating	Ex nR II T4 (KGS)	Ex d IIC T6 Gb (IECEX)	Ex d IIC T6 Gb (IECEX)	Ex d IIC T6 Gb (IECEX)	Ex d IIC T6 (KIMM)	Ex d IIC T6 Gb (IECEX)
Customization	-	Explosion proof cable gland, 2 ways cable entry, Cable entry	Explosion proof cable gland, 2 ways cable entry, Cable entry : M20x1.5, 7 tone Buzzer	Explosion proof cable gland, 2 ways cable entry, Cable entry : 3/4" NPT, M20x1.5, M25x1.5	Explosion proof cable gland, 2 ways cable entry, Cable entry : 3/4" NPT, M20x1.5, M25x1.5	Explosion proof cable gland, 2 ways cable entry, Cable entry : 3/4" NPT, M20x1.5, M25x1.5
Transistors	NPN/ PNP Type	PNP Type	-	NPN Type	-	NPN Type

Explosion Proof Type Specification List



Model number(series)	QEAL1	QEAL2	SBE130	SBE150	
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC24V AC110V, AC220V	
Dimension (mm)	Diameter	Ø152(Cage)	Ø120(Bell)	Ø150(Bell)	
	Height	226	287	120	
	Depth	189(Length)	172(Length)	138(Length)	138(Length)
Materials	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al	Bell-Al Housing-Al	Bell-Al Housing-Al	
Light source & Operation	Bulb Steady/Flashing				
	Bulb Revolving				
	LED Revolving				
	LED Steady/Flashing	•(Steady)	• (Flashing)		
	LED Strobe				
Sound Pattern / dB	LED Simulated revolving				
	Xenon Strobe				
	1 tone Buzzer				
	15 signal sounds				
	Bell			Max. 95dB at 1m	Max. 95dB at 1m
Mount type	Self stand	Self stand	Self stand	Self stand	
	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT	
	Protection rating	IP66	IP66	IP56	IP56
	Usage area	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2	ZONE 1, ZONE 2
Certificate	KOSHA	KOSHA	KIMM	KIMM	
Explosion proof rating	Ex d IIC T4 (KOSHA)	Ex d IIC T4 (KOSHA)	Ex d IIC T6 (KIMM)	Ex d IIC T6 (KIMM)	
Customization	Explosion proof cable gland, 2 ways cable entry, M20x1.5	Explosion proof cable gland, 2 ways cable entry, Cable entry : ¾" NPT, M20x1.5, M25x1.5	Explosion proof cable gland, 2 ways cable entry, Cable entry : ¾" NPT, M20x1.5, M25x1.5	Explosion proof cable gland, 2 ways cable entry, Cable entry : ¾" NPT, M20x1.5, M25x1.5	
Transistors	-	-	-	-	

Explosion Proof LED Work Lights



Model Number(series)	QMFL-300-Ex-24	
Voltage	DC24V	
Consumption of electrical power	10W	
Dimension (mm)	Length	290
	Width	38
	Height	64
Material	Housing : Al, Lens : Tempered glass	
Lens color	Translucent	
Lamp color	Cool white	
Intensity of illumination(at 1m)	260Lux	
Mounting	Mount bracket	
Protection rating	IP67/ IP69K	
Certificates	KC(KGS)	
Explosion Proof Rating	Ex nR II T6	
Customization		

Warning Light Bars & Aviation Obstruction Lights

Warning Light Bars



Model number(series)	QLV	QLV-SET	ELV	ELM	ELR-SOL	SAMP	
Voltage	DC12V	DC12V	DC12V, DC24V	DC12V, DC24V	DC12V	DC12V, DC24V	
Dimension (mm)	Diameter	300×64	300×64	285×167	280×136	1152(Width)	175(Width)
	Height	129	129	229	161	685	73
	Depth	885~1250(Length)	885~1250(Length)	1152(Length)	588~1708(Length)	484	165
Materials	Lens-PC Cover, Board-Al	QLV-PC Other SAMP-100-Steel SM-100ND-Steel	Lens, Housing-PC Board-Al	Lens, Housing-PC Board-Al	Lens, Housing-PC Board-Al	Housing-Al	
Light source & Operation	Bulb Steady/Flashing						
	Bulb Revolving						
	LED Revolving						
	LED Steady/Flashing	•	•	•	•	•	
	LED Strobe						
LED Simulated revolving			•	•			
Xenon Strobe							
Sound & Volume		Max. 135dB at 1m	Max. 126dB at 1m	Max. 126dB at 1m	-	-	
Mount bracket	Direct mount	Direct mount	Direct mount	Direct mount	Direct mount	Bracket mounting type	
Cable entry							
Protection rating	IP56	IP56	IP56	IP56	IP56	-	
Certificates							
Customization							

Aviation Obstruction Lights



Model number(series)	SAOL1	QAOL1	SAOL2	SAOL3	SAOL4	QEAL1	QEAL2	
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	
Dimension (mm)	Diameter	Ø115	Ø107	Ø139	Ø157	Ø180	Ø152(Cage)	Ø167(Cage)
	Height	275	267	178(SAOL2) 258(SAOL2P)	215(SAOL3) 288(SAOL3P)	290	226	287
	Depth	-	-	-	-	172(Length)	189(Length)	172(Length)
Materials	Lens, Housing-PC Bracket-Al	Lens, Housing-PC Bracket-Al	Lens-PC, Housing-Al Bracket-Al	Lens-PC, Housing-Al Bracket-Al	Lens-PC, Housing-Al Cover-Al	Lens-Tempered glass Housing-Al	Lens-Tempered glass Housing-Al	
Light source & Operation	Bulb Steady/Flashing							
	Bulb Revolving							
	LED Revolving							
	LED Steady/Flashing	•(Steady)	•(Flashing)	•(Steady)	•(Steady)	•	•(Steady)	•(Flashing)
	LED Strobe							
LED Simulated revolving								
Xenon Strobe								
Mount bracket	Direct mount	Direct mount	Direct mount	Direct mount	Direct mount	Direct mount	Direct mount	
Cable entry	-	-	-	-	-	1/2" NPT	1/2" NPT	
Protection rating	IP56	IP56	IP66	IP66	IP66	IP66	IP66	
Certificates	ICAO	ICAO	ICAO	ICAO	ICAO	KOSHA	KOSHA	
Customization	-	-	Cable gland - 1/2" PF, Built-in darkness detecting sensor	Cable gland - 1/2" PF, Built-in darkness detecting sensor	Cable gland - 1/2" PF, Built-in darkness detecting sensor	Explosion proof cable gland, 2 ways cable entry, M20x1.5, Built-in darkness detecting sensor	Explosion proof cable gland, 2 ways cable entry, Cable entry : 3/4" NPT, M20x1.5, M25x1.5, Built-in darkness detecting sensor	

References for Signal Tower Lights



Model number(series)	STA25SLM	STA35SL	STA35SLM	STA45SLM	STA45SLMP	QT56HEX	QTA56L
Voltage	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	DC24V	DC24V
Dimension (mm)	Diameter	Ø25	Ø35	Ø35	Ø45	Ø45	Ø45
	Height	368-488	85-265	205-385	198-378	398-568	397-434
	Depth						
Materials	Lens-AS Housing-Al	Lens-AS Housing-ABS	Lens-AS Housing-Al	Lens-Acryl Inner lens-AS Housing-Al	Lens-Acryl Inner lens-AS Housing-Al	Lens-PC Housing-Al	Lens-PC Housing-Al
Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-3 Layers	1-3 Layers
Light source & Operation	Bulb Steady/Flashing						
	LED Steady	•	•	•	•	•	•
	LED Steady/Flashing						
	LED Strobe						
Sound & Volume	LED Simulated revolving						
	1 buzzer sound				Max. 90dB at 1m	Max. 90dB at 1m	Max. 85dB at 1m
Layer color change	No	No	No	No	No	No	No
Mount bracket	Direct mount	Direct mount	Direct mount	Direct mount	Pole mount	Direct mount	Direct mount
Bracket	STAWB25	STAWB25	STAWB25	STAWB45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	-	-
Protection rating	IP44	IP44	IP44	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP54(Buzzer type), IP64(Standard)
Certificates	-	-	-	CE, UL	CE, UL	-	-
Customization	Same lens color with LED, Wall mount bracket	Wall mount bracket	Wall mount bracket	Wall mount bracket	Pole length adjustment	-	-
Transistor	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type



Model number(series)	SWT	SWTE	QWT	ST45MB	ST45B	ST56MB	ST56B
Voltage	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V~AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø90(Half)	Ø70	Ø45	Ø45	Ø56	Ø56
	Height	216	122-286	116-362	330-576	157-502	371-716
	Depth	46	46	76	-	-	-
Materials	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
Layers	2-3 Layers	2-3 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers
Light source & Operation	Bulb Steady/Flashing			•	•	•	•
	LED Steady						
	LED Steady/Flashing	•	•	•			
	LED Strobe						
Sound & Volume	LED Simulated revolving						
	1 buzzer sound	Max. 90dB at 1m	Max. 90dB at 1m	Max. 85dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m
Layer color change	No	No	Yes	Yes	Yes	Yes	Yes
Mount bracket	Wall mount	Wall mount	Wall mount	Direct mount	Pole mount	Direct mount	Pole mount
Bracket	-	-	-	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18
Protection rating	IP55	IP55	IP54	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)
Certificates	CE, UL	CE, UL	CE	CE	CE	CE	CE
Customization	Color combination except for standard, 2 buzzer sounds, Transparent inner lens	Color combination except for standard, 2 buzzer sounds, Transparent inner lens	Color combination except for standard	Wall mount bracket, 2 Buzzer sounds	Pole length adjustment, 2 Buzzer sounds	Wall mount bracket, 2 buzzer sounds	Pole length adjustment, 2 buzzer sounds
Transistor	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	-	-	-	-

References for Signal Tower Lights



Model number(series)	ST80MB	ST80B	ST45ML	ST45L	ST56MEL	ST56EL
Voltage	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø80	Ø80	Ø45	Ø45	Ø56
	Height	180-460	317-597	106-358	320-572	127-352
	Depth	-	-	-	-	-
Materials	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers
Light source & Operation	Bulb Steady/Flashing	•	•			
	LED Steady			•	•	
	LED Steady/Flashing			•	•	•
	LED Strobe					•
	LED Simulated revolving					
Sound & Volume	1 buzzer sound	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m
	5 signal sounds	-	-	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m
Layer color change	Yes	Yes	Yes	Yes	Yes	Yes
Mount bracket	Direct mount	Pole mount	Direct mount	Pole mount	Direct mount	Pole mount
Bracket	TWS80, TWA80	LB24, LW24, QZ24, SZ24, QL24, SL24, QLA24	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18
Protection rating	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)
Certificates	-	-	CE, UL	CE, UL	CE, UL	CE, UL
Customization	Wall mount bracket, 2 buzzer sounds	Pole length adjustment, 2 buzzer sounds	2 buzzer sounds, Wall mount bracket, AC each layer power supplied, DC24V UL listed	2 buzzer sounds, Pole length adjustment, AC each layer power supplied, DC24V UL listed	2 buzzer sounds, Wall mount bracket, AC each layer power supplied, DC24V UL listed	2 buzzer sounds, Pole length adjustment, AC each layer power supplied, DC24V UL listed
Transistor	-	-	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type



Model number(series)	ST56ML	ST56L	ST80MEL	ST80EL	ST80ML	ST80L
Voltage	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V	AC/DC12V AC/DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø56	Ø56	Ø80	Ø80	Ø80
	Height	157-502	371-716	150-310	287-447	180-460
	Depth	-	-	-	-	-
Materials	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers
Light source & Operation	Bulb Steady/Flashing					
	LED Steady	•	•	•	•	•
	LED Steady/Flashing					
	LED Strobe					
	LED Simulated revolving					
Sound & Volume	1 buzzer sound	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m
	5 signal sounds	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m
Layer color change	Yes	Yes	Yes	Yes	Yes	Yes
Mount bracket	Direct mount	Pole mount	Direct mount	Pole mount	Direct mount	Pole mount
Bracket	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS80, TWA80	LB24, LW24, QZ24, SZ24, QL24, SL24, QLA24	TWS80, TWA80	LB24, LW24, QZ24, SZ24, QL24, SL24, QLA24
Protection rating	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)
Certificates	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL
Customization	2 buzzer sounds, Wall mount bracket, AC each layer power supplied, DC24V UL listed	Pole length adjustment, 2 buzzer sounds, AC each layer power supplied, DC24V UL listed	2 buzzer sounds, Wall mount bracket, AC each layer power supplied, DC24V UL listed	2 buzzer sounds, Pole length adjustment, AC each layer power supplied, DC24V UL listed	2 buzzer sounds, Wall mount bracket, AC each layer power supplied, DC24V UL listed	2 buzzer sounds, Pole length adjustment, AC each layer power supplied, DC24V UL listed
Transistor	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type

References for Signal Tower Lights

Multiple Color LED Signal Tower Lights



Model number(series)	STC45ML	STC45L	STC56ML	STC56L	STC80ML	STC80L
Voltage	AC/DC12V, AC/DC24V AC110V, AC220V	AC/DC12V, AC/DC24V AC110V, AC220V	AC/DC12V, AC/DC24V AC110V, AC220V	AC/DC12V, AC/DC24V AC110V, AC220V	AC/DC12V, AC/DC24V AC110V, AC220V	AC/DC12V, AC/DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø45	Ø45	Ø56	Ø56	Ø80
	Height	106-198	320-412	157-287	371-501	180
	Depth					
	Materials	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
Light source & Operation	Layers	2-3 Colors	2-3 Colors	2-3 Colors	2-3 Colors	2-3 Colors
	Bulb Steady/Flashing					
	LED Steady					
	LED Steady/Flashing	•	•	•	•	•
	LED Strobe					
Sound & Volume	LED Simulated revolving					
	1 buzzer sound 5 signal sounds	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m
Layer color change						
Mount bracket	Direct mount	Pole mount	Direct mount	Pole mount	Direct mount	Pole mount
Bracket	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS80, TWA80	LB24, LW24, QZ24, SZ24, QL24, SL24, QLA24
Protection rating	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)
Certificates	CE	CE	CE	CE	CE	CE
Customization	2 buzzer sounds, Wall mount bracket	2 buzzer sounds, Pole length adjustment	2 Buzzer sounds, Lens length 40mm, Color combination except for standard, Wall mount Bracket	2 Buzzer sounds, Lens length 40mm, Color combination except for standard, Pole length adjustment	2 Buzzer sounds, Lens length 40mm, Color combination except for standard, Wall mount Bracket	2 Buzzer sounds, Lens length 40mm, Color combination except for standard, Pole length adjustment
Transistor	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type



Model number(series)	QT56MCL	QT56MCLH	STG40ML	STG40L	STG50ML	STG50L
Voltage	DC24V	DC24V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V
Dimension (mm)	Diameter	52	Ø40	Ø40	Ø50	Ø50
	Height	276	317	111-339	339-567	106-314
	Depth					
Light source & Operation	Materials	Lens-PC Housing-Al	Lens-PC Housing-Al	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
	Layers	7 Colors	7 Colors	1-5 Layers	1-5 Layers	1-5 Layers
	Bulb Steady/Flashing					
	LED Steady	•	•			
	LED Steady/Flashing			•	•	•
Sound & Volume	LED Strobe					
	LED Simulated revolving					
1 buzzer sound 5 signal sounds	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m
Layer color change	-	-	Yes	Yes	Yes	Yes
Mount bracket	Pole mount	Pole mount	Direct mount	Pole mount	Direct mount	Pole mount
Bracket	-	-	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18
Protection rating	IP23(Buzzer type), IP44(Standard)	IP23(Buzzer type), IP44(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)
Certificates	-	-	CE	CE	CE	CE
Customization	-	-	Wall mount bracket, 2 buzzer sounds	2 buzzer sounds, Pole length adjustment	Wall mount bracket, 2 buzzer sounds	2 buzzer sounds, Pole length adjustment
Transistor	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type

References for Signal Tower Lights



Model number(series)	QTG50ML	QTG50L	QTG60ML	QTG60L	QTG70ML	QTG70L	
Voltage	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	
Dimension (mm)	Diameter	Ø50	Ø50	Ø60	Ø60	Ø70	
	Height	116-364	344-592	126-399	352-635	126-399	274-557
	Depth						
	Materials	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS
Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	
Light source & Operation	Bulb Steady/Flashing						
	LED Steady						
	LED Steady/Flashing	•	•	•	•	•	
	LED Strobe						
LED Simulated revolving							
Sound & Volume	1 buzzer sound	Max. 85dB at 1m	Max. 85dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	
	5 signal sounds						
Layer color change	Yes	Yes	Yes	Yes	Yes	Yes	
Mount bracket	Direct mount	Pole mount	Direct mount	Pole mount	Direct mount	Pole mount	
Bracket	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS80, TWA80	LB24, LW24, QZ24, SZ24, QL24, SL24, QLA24	
Protection rating	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	
Certificates	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL	
Customization	2 buzzer sounds, Wall mount bracket, Strong buzzer, Black housing	2 buzzer sounds, Pole length adjustment, Strong buzzer, Black housing	2 buzzer sounds, Wall mount bracket, Strong buzzer, Black housing	2 buzzer sounds, Pole length adjustment, Strong buzzer, Black housing	2 buzzer sounds, Wall mount bracket, Strong buzzer, Black housing	2 buzzer sounds, Pole length adjustment, Strong buzzer, Black housing	
Transistor	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	



Model number(series)	QTC50ML	QTC50L	QTC60ML	QTC60L	QTC70ML	QTC70L	
Voltage	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	
Dimension (mm)	Diameter	Ø50	Ø50	Ø60	Ø60	Ø70	
	Height	116-364	344-592	126-399	352-635	126-399	274-557
	Depth						
	Materials	Lens, Inner Lens -PC Housing-ABS	Lens, Inner Lens -PC Housing-ABS	Lens, Inner Lens -PC Housing-ABS	Lens, Inner Lens -PC Housing-ABS	Lens, Inner Lens -PC Housing-ABS	Lens, Inner Lens -PC Housing-ABS
Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	
Light source & Operation	Bulb Steady/Flashing						
	LED Steady						
	LED Steady/Flashing	•	•	•	•	•	
	LED Strobe						
LED Simulated revolving							
Sound & Volume	1 buzzer sound	Max. 85dB at 1m	Max. 85dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	
	5 signal sounds						
Layer color change	Yes	Yes	Yes	Yes	Yes	Yes	
Mount bracket	Direct mount	Pole mount	Direct mount	Pole mount	Direct mount	Pole mount	
Bracket	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS80, TWA80	LB24, LW24, QZ24, SZ24, QL24, SL24, QLA24	
Protection rating	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	
Certificates	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL	
Customization	2 buzzer sounds, Wall mount bracket, Strong buzzer, Black housing	2 buzzer sounds, Pole length adjustment,, Strong buzzer, Black housing	2 buzzer sounds, Wall mount bracket, Strong buzzer, Black housing	2 buzzer sounds, Pole length adjustment, Strong buzzer, Black housing	2 buzzer sounds, Wall mount bracket, Strong buzzer, Black housing	2 buzzer sounds, Pole length adjustment, Strong buzzer, Black housing	
Transistor	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	

References for Signal Tower Lights



Model number(series)	QTR50ML	QTR50L	QTR60ML	QTR60L	QTR70ML	QTR70L	
Voltage	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	AC/DC12V, AC/DC24V AC110V-220V	
Dimension (mm)	Diameter	Ø50	Ø50	Ø60	Ø60	Ø70	
	Height	116-364	344-592	126-399	352-635	126-399	274-557
	Depth						
	Materials	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS
Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	
Light source & Operation	Bulb Steady/Flashing						
	LED Steady						
	LED Steady/Flashing	•	•	•	•	•	
	LED Strobe						
LED Simulated revolving							
Sound & Volume	1 buzzer sound	Max. 85dB at 1m	Max. 85dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	
	5 signal sounds						
Layer color change	Yes	Yes	Yes	Yes	Yes	Yes	
Mount bracket	Direct mount	Pole mount	Direct mount	Pole mount	Direct mount	Pole mount	
Bracket	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS80, TWA80	LB24, LW24, QZ24, SZ24, QL24, SL24, QLA24	
Protection rating	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	
Certificates	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL	
Customization	2 buzzer sounds, Wall mount bracket, Strong buzzer	2 buzzer sounds, Pole length adjustment, Strong buzzer	2 buzzer sounds, Wall mount bracket, Strong buzzer	2 buzzer sounds, Wall mount bracket, Strong buzzer	2 buzzer sounds, Wall mount bracket, Strong buzzer	2 buzzer sounds, Pole length adjustment, Strong buzzer	
Transistor	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	



Model number(series)	QT50ML	QT50L	QT70ML	QT70L	
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	
Dimension (mm)	Diameter	Ø50	Ø50	Ø70	
	Height	83-247	297-461	98-322	237-461
	Depth				
	Materials	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-PC
Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	
Light source & Operation	Bulb Steady/Flashing				
	LED Steady				
	LED Steady/Flashing	•	•	•	
	LED Strobe	•	•	•	
LED Simulated revolving	•	•	•	•	
Sound & Volume	1 buzzer sound	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	
	5 signal sounds	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m	
Layer color change	Yes	Yes	Yes	Yes	
Mount bracket	Direct mount	Pole mount	Direct mount	Pole mount	
Bracket	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS80, TWA80	LB24, LW24, QZ24, SZ24, QL24, SL24, QLA24	
Protection rating	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	
Certificates	-	-	CE(Buzzer type only)	CE(Buzzer type only)	
Customization	Beige color, Wall mount bracket, LED strobe, LED simulated revolving	Beige color, Pole length adjustment, LED strobe, LED simulated revolving	Beige color, Wall mount bracket, LED strobe, LED simulated revolving	Beige color, Pole length adjustment, LED strobe, LED simulated revolving	
Transistor	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	NPN/ PNP type	

Specification List for USB LED Tower Lights



Model number(series)	ST45ML-USB	ST45L-USB	ST56MEL-USB	ST56EL-USB	ST80MEL-USB	ST80EL-USB	
Voltage	USB DC 5V	USB DC 5V	USB DC 5V	USB DC 5V	USB DC 5V	USB DC 5V	
Dimension (mm)	Diameter	Ø45	Ø45	Ø56	Ø80	Ø80	
	Height	198-358	412-572	192-352	406-566	230-390	367-527
	Depth						
	Materials	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
Layer	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	
Light source & Operation	Bulb Steady/Flashing						
	LED Steady						
	LED Steady/Flashing	•	•	•	•	•	
	LED Strobe						
Sound & volume	LED Simulated revolving						
	1 buzzer sound	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	
5 Signal sounds	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m	
Layer color change	Support	Support	Support	Support	Support	Support	
Mount bracket	Direct mount	Pole mount	Direct mount	Pole mount	Direct mount	Pole mount	
Bracket	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS80, TWA80	LB24, LW24, QZ24, SZ24, QL24, SL24, QLA24	
Protection rating	IP23	IP23	IP23	IP23	IP23	IP23	
Certificates							
Customization	Customized color arrangements, Wall mount brackets	Customized color arrangements, Customized pole length	Customized color arrangements, 70mm lens height, Wall mount brackets	Customized color arrangements, 70mm lens height, Customized pole length	Customized color arrangements, 70mm lens height, Wall mount brackets	Customized color arrangements, 70mm lens height, Customized pole length	



Model number(series)	QT50ML-USB	QT50L-USB	QT70ML-USB	QT70L-USB	STDEL-USB	
Voltage	USB DC 5V	USB DC 5V	USB DC 5V	USB DC 5V	DC12V, DC24V AC110V, AC220V	
Dimension (mm)	Diameter	Ø50	Ø50	Ø70	Ø80(Lens) Ø119(Housing)	
	Height	208-372	422-586	148-372	287-511	204-364
	Depth					
	Materials	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-AS Housing-ABS
Layer	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	
Light source & Operation	Bulb Steady/Flashing					
	LED Steady					
	LED Steady/Flashing	•	•	•	•	
	LED Strobe	•	•	•	•	
Sound & volume	LED Simulated revolving	•	•	•	•	
	1 buzzer sound	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 105dB at 1m
5 Signal sounds	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m	Max. 105dB at 1m	
Layer color change	Support	Support	Support	Support	Support	
Mount bracket	Direct mount	Pole mount	Direct mount	Pole mount	Direct mount	
Bracket	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS80, TWA80	LB24, LW24, QZ24, SZ24, QL24, SL24, QLA24	-	
Protection rating	IP54	IP54	IP54	IP54	IP54	
Certificates						
Customization	Customized color arrangements, Beige color, LED strobe, LED simulated revolving, Wall mount brackets	Customized color arrangements, Beige color, LED strobe, LED simulated revolving, Customized pole length	Customized color arrangements, Beige color, LED strobe, LED simulated revolving, Wall mount brackets	Customized color arrangements, Beige color, LED strobe, LED simulated revolving, Customized pole length	Customized color arrangements, 70mm lens height	

Specification List for Ethernet LED Tower Lights



Model number(series)	ST45ML-ETN	ST45L-ETN	ST56MEL-ETN	ST56EL-ETN	ST80MEL-ETN	ST80EL-ETN
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V
Dimension (mm)	Diameter	Ø45	Ø45	Ø56	Ø56	Ø80
	Height	244-404	458-618	257-517	471-731	230-390
	Depth					
Materials	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS	Lens-AS Housing-ABS
	Layer	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers
Light source & Operation	Bulb Steady/Flashing					
	LED Steady					
	LED Steady/Flashing	•	•	•	•	•
	LED Strobe					
	LED Simulated revolving					
Sound & volume	1 buzzer sound		Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m
	5 Signal sounds	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m	Max. 85dB at 1m
Layer color change	Support	Support	Support	Support	Support	Support
Mount bracket	Direct mount	Pole mount	Direct mount	Pole mount	Direct mount	Pole mount
Bracket	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QLA18	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QLA18	TWS80, TWA80	LB24, LW24, QZ24, SZ24, QLA24
Protection rating	IP23	IP23	IP23	IP23	IP23	IP23
Certificates	-	-	-	KCC	-	-
Customization	Customized color arrangements, Wall mount brackets	Customized color arrangements, Customized pole length	Customized color arrangements, 70mm lens height, Wall mount brackets	Customized color arrangements, 70mm lens height, Customized pole length	Customized color arrangements, 70mm lens height, Wall mount brackets	Customized color arrangements, 70mm lens height, Customized pole length



Model number(series)	QT50ML-ETN	QT50L-ETN	QT70ML-ETN	QT70L-ETN
Voltage	DC12V, DC24V	DC12V, DC24V	DC12V, DC24V	DC12V, DC24V
Dimension (mm)	Diameter	Ø50	Ø50	Ø70
	Height	208-372	422-586	148-372
	Depth			
Materials	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-PC	Lens-PC Housing-PC
	Layer	1-5 Layers	1-5 Layers	1-5 Layers
Light source & Operation	Bulb Steady/Flashing			
	LED Steady			
	LED Steady/Flashing	•	•	•
	LED Strobe	•	•	•
	LED Simulated revolving	•	•	•
Sound & volume	1 buzzer sound	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m
	5 Signal sounds	Max. 85dB at 1m	Max. 85dB at 1m	Max. 90dB at 1m
Layer color change	Support	Support	Support	Support
Mount bracket	Direct mount	Pole mount	Direct mount	Pole mount
Bracket	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QLA18	TWS80, TWA80	LB24, LW24, QZ24, SZ24, QLA24
Protection rating	IP54	IP54	IP54	IP54
Certificates				
Customization	Customized color arrangements, Beige color, LED strobe, LED simulated revolving, Wall mount brackets	Customized color arrangements, Beige color, LED strobe, LED simulated revolving, Customized Pole Length	Customized color arrangements, Beige color, LED strobe, LED simulated revolving, Wall mount brackets	Customized color arrangements, Beige color, LED strobe, LED simulated revolving, Customized Pole Length

Specification List For Wireless Products

Wireless LED Tower Lights



Model number(series)	QTG60ML-WIZ	QTG60L-WIZ	QTG70ML-WIZ	QTG70L-WIZ	
Voltage	DC12V, DC24V AC110V, AV220V	DC12V, DC24V AC110V, AV220V	DC12V, DC24V AC110V, AV220V	DC12V, DC24V AC110V, AV220V	
Dimension (mm)	Diameter	Ø60	Ø60	Ø70	
	Height	126-399	352-635	126-399	274-557
	Depth				
Materials	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS	Lens-PC Housing-ABS	
	Layers	1-5 Layers	1-5 Layers	1-5 Layers	1-5 Layers
Light source & Operation	Bulb Steady/Flashing				
	LED Steady				
	LED Steady/Flashing	•	•	•	•
	LED Strobe				
Sound & Volume	LED Simulated revolving				
	1 buzzer sound 5 signal sounds	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m	Max. 90dB at 1m
Layer color change	Yes	Yes	Yes	Yes	
Mount bracket	Direct mount	Pole mount	Direct mount	Pole mount	
Bracket	TWS45, TWA45	LB18, LW18, QZ18, SZ18, QL18, SL18, QLA18	TWS80, TWA80	LB24, LW24, QZ24, SZ24, QL24, SL24, QLA24	
Protection rating	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	IP54(Buzzer type), IP65(Standard)	
Customization	2 buzzer sounds, Wall mount bracket, Strong buzzer, Black housing	2 buzzer sounds, Pole length adjustment, Strong buzzer, Black housing	2 buzzer sounds, Wall mount bracket, Strong buzzer, Black housing	2 buzzer sounds, Pole length adjustment, Strong buzzer, Black housing	
Transistor	NPN	NPN	NPN	NPN	
Communication	Wireless	Wireless	Wireless	Wireless	

Wireless LED Signal Lights

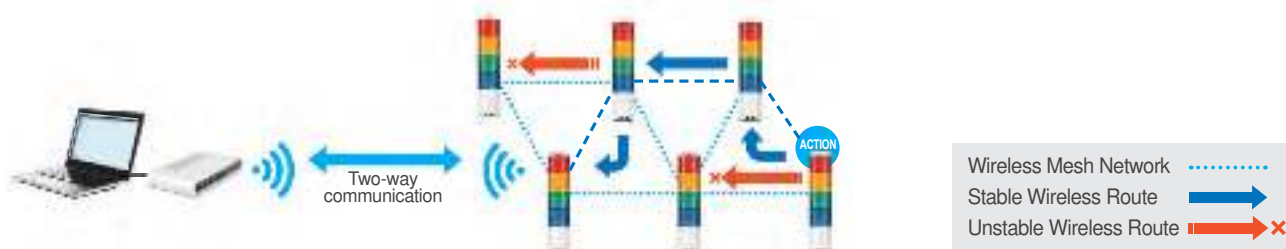


Model number	QMCL100-WIZ	QMCL125-WIZ
Voltage	DC12V, DC24V	DC12V, DC24V
Dimension (mm)	Diameter	Ø97
	Height	95
Volume	Max. 80dB at 1m	Max. 80dB at 1m
Materials	Lens-AS Housing-ABS	Lens-AS Housing-ABS
Mount bracket	Self stand	Self stand
Protection rating	IP65	IP65
Customization	Wall mount	Wall mount
Transistor	NPN	NPN
Communication	Wireless	Wireless

Product lists can be equipped with Wireless network

Model number	Voltage	Model number	Voltage
S100L	DC12V/ DC24V	ST45L	DC12V/ DC24V,AC110-220V
S125L	DC12V/ DC24V	ST56(E)L	DC12V/ DC24V,AC110-220V
S150UL	DC12V/ DC24V	STC45L	DC12V/ DC24V,AC110-220V
Q100L	DC12V/ DC24V	STC56L	DC12V/ DC24V,AC110-220V
Q125L	DC12V/ DC24V	QTG60L	DC12V/ DC24V,AC110-220V
MFL100	DC12V/ DC24V	QTG70L	DC12V/ DC24V,AC110-220V
MFL125	DC12V/ DC24V	QTC60L	DC12V/ DC24V,AC110-220V
SMCL100	DC12V/ DC24V	QTC70L	DC12V/ DC24V,AC110-220V
SMCL125	DC12V/ DC24V	QTR60L	DC12V/ DC24V,AC110-220V
QMCL100	DC12V/ DC24V	QTR70L	DC12V/ DC24V,AC110-220V
QMCL125	DC12V/ DC24V	QT50L	DC12V/ DC24V,AC110-220V

• **Wireless Mesh Network** The Wireless Mesh Network automatically selects the optimal path of communication



Reference for Electric Horn/ Speaker/ Motor Siren/ Buzzer Horn/ Bell



Model number(series)	SPK	QMPS	S60ADH	QAP80H	QAP80BZ	QAP100H	QAP100BZ
Voltage	DC12V, DC24V AC110V, AC220V	DC12V-24V AC110V-220V	DC12V, DC24V AC110V, AC220V	DC12V-DC24V	DC12V, DC24V	DC12V-24V AC110V-220V	DC12V, DC24V AC110V-220V
Dimension (mm)	Diameter	80×80	120×120	Ø75	Ø83	Ø83	Ø97
	Height	-	-	158	129	129	137
	Depth	75	69	86	93	93	109
Materials	ABS	ABS	ABS	ABS	ABS	ABS	ABS
Sound & Volume	1 Tone Buzzer			Max. 100dB at 1m		Max. 105dB at 1m	
	5 Signal Sounds	Max. 85dB at 1m					
	Voice						
	30 Signal Sounds		Max. 98dB at 1m		Max. 100dB at 1m		Max. 100dB at 1m
	31 Signal Sounds						
MP3		Max. 95dB at 1m				Max. 95dB at 1m	
Other Sound							
Mount bracket	Panel mount	Panel mount	Wall mount	Wall mount	Wall mount	Wall mount	Wall mount
Caple entry	-	-	-	Ø10	Ø10	Ø10	Ø10
Protection rating	IP23	IP54	IP54	IP65	IP65	IP65	IP65
Certificates	CE	CE, UL	CE	-	-	-	-
Customization	-	-	Strong buzzer 105dB	-	-	-	-
Transistor	NPN type	NPN type		NPN type	-	NPN type	-



Model number(series)	QAP125H	QAP125BZ	SRN	SEN15	SEN25	SMP35	SMP50
Voltage	DC12V-24V AC110V-220V	DC12V, DC24V AC110V-220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V-24V AC110V-220V	DC12V, DC24V AC110V-220V
Dimension (mm)	Diameter	Ø116	Ø116	Ø125	130	130	145×177
	Height	149	149	-	-	-	-
	Depth	132	132	185(Length)	200(Length)	200(Length)	220(Length)
Materials	ABS	ABS	ABS	ABS	ABS	ABS	ABS
Sound & Volume	1 Tone Buzzer						Max. 105dB at 1m
	5 Signal Sounds			Max. 108dB at 1m	Max. 108dB at 1m	Max. 115dB at 1m	
	Voice			Max. 98dB at 1m	Max. 98dB at 1m	Max. 108dB at 1m	
	30 Signal Sounds	Max. 115dB at 1m					Max. 115dB at 1m
	31 Signal Sounds						
MP3	Max. 100dB at 1m					Max. 113dB at 1m	Max. 118dB at 1m
Other Sound							
Mount bracket	Wall mount	Wall mount	Self stand	Self stand	Self stand	Self stand	Self stand
Caple entry	Ø10	Ø10	Ø10	Ø10	Ø10	Ø21	Ø21
Protection rating	IP65	IP65	IP55	IP55	IP55	IP65	IP65
Certificates	-	-	CE	CE	CE	-	-
Customization	-	-	External sound pattern signal line	External sound pattern signal line	External sound pattern signal line	External sound pattern signal line	External sound pattern signal line
Transistor	NPN type	-	NPN type	NPN type	NPN type	NPN type	NPN type

Reference for Electric Horn/ Speaker/ Motor Siren/ Buzzer Horn/ Bell



Model number(series)	SN	SEHN25	SEHN50	SN-1	SM30	SM40	
Voltage	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V	DC12V, DC24V AC110V, AC220V	DC12V, DC24V AC110V, AC220V	
Dimension (mm)	Diameter	Ø119(Horn)	Ø158(Horn)	Ø167(Horn)	Ø135(Horn)	Ø77	Ø128
	Height						
	Depth	167(Length)	238(Length)	242(Length)	140(Length)	82(Length)	162(Length)
Materials	Housing-Steel	Housing-Steel	Housing-Steel	Housing-Steel	Housing-Steel	Housing-ABS	
Sound & Volume	1 Tone Buzzer						
	5 Signal Sounds	Max. 105dB at 1m	Max. 115dB at 1m	Max. 120dB at 1m	-	-	-
	Voice	Max. 95dB at 1m	Max. 108dB at 1m	Max. 115dB at 1m	-	-	-
	30 Signal Sounds						
	31 Signal Sounds						
MP3							
Other Sound	-	-	-	Max. 100dB at 1m	Max. 110dB at 1m	Max. 116dB at 1m	
Mount bracket	Self stand	Self stand	Self stand	Self stand	Self stand	Self stand	
Caple entry	Ø10	Ø21	Ø21	Ø10	Ø22	Ø22	
Protection rating	IP55	IP55	IP55	IP55	IP44	IP44	
Certificates	KIMM	KIMM	KIMM	-	-	-	
Customization	External sound pattern signal line	External sound pattern signal line	External sound pattern signal line	-	-	-	
Transistor	NPN type	NPN type	NPN type	-	-	-	



Model number(series)	SM200	SM400	SAB130	SAB200	QWH35	QWH50	
Voltage	DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC24V AC110V, AC220V	DC12V-24V AC110V-220V	DC12V, DC24V AC110V-220V	
Dimension (mm)	Diameter	Ø143	Ø165	Ø130(Bell)	Ø200(Bell)	136×179	168×222
	Height	-	-	238	269	-	-
	Depth	231(Length)	284(Length)	107	107	126	163
Materials	Housing-Steel	Housing-Steel	Bell-Steel Housing-ABS	Bell-Steel Housing-ABS	Horn-PC Housing-ABS	Horn-PC Housing-ABS	
Sound & Volume	1 Tone Buzzer						
	5 Signal Sounds						
	Voice						
	30 Signal Sounds						
	31 Signal Sounds	-	-	-	-	Max. 115dB at 1m	Max. 123dB at 1m
MP3	-	-	-	-	Max. 113dB at 1m	Max. 118dB at 1m	
Other Sound	Max. 120dB at 1m	Max. 123dB at 1m	Max. 95dB at 1m	Max. 95dB at 1m	-	-	
Mount bracket	Direct mount	Direct mount	Wall mount	Wall mount	Wall mount	Wall mount	
Caple entry	Ø9	Ø22	Ø26	Ø26	Ø21	Ø21	
Protection rating	IP44	IP44	IP56	IP56	IP66	IP66	
Certificates	CE						
Customization	-	-	2 way cable entries	2 way cable entries	-	-	
Transistor	-	-	-	-	NPN type	NPN type	

LED Work Lights for Industrial Purpose Specification List



Model number(series)	QWSL-150	QWSL-250	QWHL-150	QWHL-250
Voltage	DC24V	DC24V	DC24V	DC24V
Consumption of electrical power	11W	23W	10W	17W
Dimension (mm)	Direct mount (D type)	250(W)×110(L)×35(H)	150(W)×100(L)×35(H)	250(W)×110(L)×35(H)
	Bracket (K type)	150(W)×152(L)×35(H)	250(W)×162(L)×35(H)	150(W)×152(L)×35(H)
Material	Housing : Al, Lens : Tempered glass	Housing : Al, Lens : Tempered glass	Housing : Al, Lens : Tempered glass	Housing : Al, Lens : Tempered glass
Lens color	Translucent	Translucent	Transparent	Transparent
Lamp color	Cool white	Cool white	Cool white	Cool white
Intensity of illumination(at 1m)	570Lux	920Lux	3,200Lux	5,200Lux
Mounting	Direct mount(D type), Mount bracket(K type)	Direct mount(D type), Mount bracket(K type)	Direct mount(D type), Mount bracket(K type)	Direct mount(D type), Mount bracket(K type)
Protection rating	IP67	IP67	IP67	IP67
Certificates	CE	CE	CE	CE
Customization	M12 connector equipped	M12 connector equipped	M12 connector equipped	M12 connector equipped



Model Number(series)	QML-150	QML-250	QMHL-150	QMHL-250
Voltage	DC24V, AC110V, AC220V	DC24V, AC110V, AC220V	DC24V, AC110V, AC220V	DC24V, AC110V, AC220V
Consumption of electrical power	11-13W	23-29W	11-12W	23-25W
Dimension (mm)	Length	155(W)×105(L)×36(H)	255(W)×115(L)×36(H)	155(W)×105(L)×36(H)
	Width	155(W)×156(L)×36(H)	255(W)×166(L)×36(H)	155(W)×156(L)×36(H)
	Height	155(W)×191(L)×36(H)	255(W)×201(L)×36(H)	155(W)×191(L)×36(H)
Material	Housing : Al, Lens : Tempered glass	Housing : Al, Lens : Tempered glass	Housing : Al, Lens : Tempered glass	Housing : Al, Lens : Tempered glass
Lens color	Translucent	Translucent	Transparent	Transparent
Lamp color	Cool white	Cool white	Cool white	Cool white
Intensity of illumination(at 1m)	620Lux	890Lux	1,000Lux	1,900Lux
Mounting	Direct mount(D type), Mount bracket(K type), Revolving mount bracket (MF Type)	Direct mount(D type), Mount bracket(K type), Revolving mount bracket (MF Type)	Direct mount(D type), Mount bracket(K type), Revolving mount bracket (MF Type)	Direct mount(D type), Mount bracket(K type), Revolving mount bracket (MF Type)
Protection rating	IP67/ IP69K	IP67/ IP69K	IP67/ IP69K	IP67/ IP69K
Certificates	CE, UL, KC	CE, UL, KC	CE, UL, KC	CE, UL, KC
Customization	M12 connector equipped	M12 connector equipped	M12 connector equipped	M12 connector equipped



Model Number(series)	QFL-200/ 300/ 400/ 500/ 600/ 1200	QFLC-200/ 300/ 400/ 500/ 600/ 1200	QMFL-200/ 300/ 400/ 500/ 600	QMFHL-200/ 300/ 400/ 500/ 600
Voltage	DC24V, AC110V, AC220V	DC24V, AC110V, AC220V	DC24V, AC110V, AC220V	DC24V, AC110V, AC220V
Consumption of electrical power	5.5-53W	5.5-53W	7.5-32W	6-28W
Dimension (mm)	Length	240-1190	190-600	190-600
	Width	60	60	38
	Height	63	63	64
Material	Lens : PC, Side cover : Al	Lens : PC, Side cover : Al	Housing : Al, Lens : Tempered glass	Housing : Al, Lens : Tempered glass
Lens color	Translucent	Transparent	Translucent	Transparent
Lamp color	Cool white	Cool white	Cool white	Cool white
Intensity of illumination(at 1m)	120-1,200Lux	150-1,560Lux	200-650Lux	460-2,300Lux
Mounting	Mount bracket	Mount bracket	Mount bracket	Mount bracket
Protection rating	IP67	IP67	IP67/ IP69K	IP67/ IP69K
Certificates	CE, UL, KC	CE, UL, KC	CE, UL, KC	CE, UL, KC
Customization	M12 connector equipped	M12 connector equipped	M12 connector equipped	M12 connector equipped

LED Work Lights for Industrial Purpose Specification List



Model Number(series)	QPL200/ 300/ 400/ 500	QPLC200/ 300/ 400/ 500	QPHL200/ 300/ 400/ 500	QPHLC200/ 300/ 400/ 500
Voltage	DC24V, AC110V, AC220V	DC24V, AC110V, AC220V	DC24V, AC110V, AC220V	DC24V, AC110V, AC220V
Consumption of electrical power	4-11W	4-11W	4.8-11W	4.8-11W
Dimension (mm)	Length	200-500	200-500	200-500
	Width	39.4	39.4	39.4
	Height	24.4	24.4	24.4
Material	Lens : PC, Side cover : ABS	Lens : PC, Side cover : ABS	Lens : PC, Side cover : ABS	Lens : PC, Side cover : ABS
Lens color	Translucent	Transparent	Translucent	Transparent
Lamp color	Cool white	Cool white	Cool white	Cool white
Intensity of illumination(at 1m)	50-215Lux	65-265Lux	80-290Lux	100-375Lux
Mounting	Direct mount	Direct mount	Direct mount	Direct mount
Protection rating	IP65	IP65	IP65	IP65
Certificates	CE, UL, KC	CE, UL, KC	CE, UL, KC	CE, UL, KC
Customization				



Model Number(series)	QCML-200/ 300/ 400/ 500/ 600/ 900/ 1200/ 1500	QCMLC-200/ 300/ 400/ 500/ 600/ 900/ 1200/ 1500	QGL-200/ 300/ 400/ 500	QGLC-200/ 300/ 400/ 500
Voltage	DC24V	DC24V	DC24V, AC110V, AC220V	DC24V, AC110V, AC220V
Consumption of electrical power	5.5-28W	5.5-28W	4-12W	4-12W
Dimension (mm)	Length	257-1,557	200-500	200-500
	Width	33	33	38.4
	Height	26	26	33.6
Material	Lens : PC, Side cover : PC	Lens : PC, Side cover : PC	Lens : PC, Side cover : ABS	Lens : PC, Side cover : ABS
Lens color	Translucent	Transparent	Translucent	Transparent
Lamp color	Cool white, Warm white, Red, Amber	Cool white, Warm white, Red, Amber	Cool white	Cool white
Intensity of illumination(at 1m)	85-550Lux	100-600Lux	70-300Lux	85-370Lux
Mounting	Mount bracket	Mount bracket	Mount bracket	Mount bracket
Protection rating	IP67/ IP69K	IP67/ IP69K	Non Water-proof	Non Water-proof
Certificates	CE, UL	CE, UL	CE, KC	CE, KC
Customization				



Model Number(series)	QEL-200/ 300/ 400/ 500	QELT-200/ 300/ 400/ 500	QELS-200/ 300/ 400/ 500	QELTS-200/ 300/ 400/ 500
Voltage	DC24V, AC110V, AC220V	DC24V, AC110V, AC220V	DC24V, AC110V, AC220V	DC24V, AC110V, AC220V
Consumption of electrical power	3.5-8.5 W	3.5-8.5W	3.5-8.5W	3.5-8.5W
Dimension (mm)	Length	220-520	249-549	278-578
	Width	34.6	34.6	34.6
	Height	30.7	30.7	33.1
Material	Lens : PC, Side cover : ABS	Lens : PC, Side cover : ABS	Lens : PC, Side cover : ABS	Lens : PC, Side cover : ABS
Lens color	Translucent	Translucent	Translucent	Translucent
Lamp color	Cool white	Cool white	Cool white	Cool white
Intensity of illumination(at 1m)	80-200Lux	80-200Lux	80-200Lux	80-200Lux
Mounting	Mount bracket	Mount bracket	Mount bracket	Mount bracket
Protection rating	Non Water-proof	Non Water-proof	Non Water-proof	Non Water-proof
Certificates	CE, KC	CE, KC	CE, KC	CE, KC
Customization				

Waterproof and Dustproof Protection Structure

Comparing waterproof dustproof protection structure






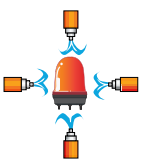
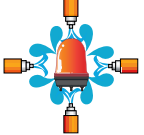
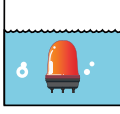

■ IP rating : Known as "Ingress Protection rating" indicated in two-digit code showing the amount of protection against solid and the liquid. (IEC60529)

IP 6 7

First Number Protection against solid

- 0  Test
No protection
- 1  Protected against solid objects over 50mm, e.g. accidental touch by persons hands.
- 2  Protected against solid objects over 12.5mm, e.g. persons fingers.
- 3  Protected against solid objects over 2.5mm (tools and wires).
- 4  Protected against solid objects over 1mm (tools, wires, and small wires).
- 5  Protected against dust limited ingress (no harmful deposit).
- 6  Totally protected against dust.

Second Number Protection against liquid

- 0  Test
No protection
- 1  Protection against vertically falling drops of water e.g. condensation.
- 2  Protection against direct sprays of water up to 15° from the vertical.
- 3  Protected against direct sprays of water up to 60° from the vertical.
- 4  Protection against water sprayed from all directions - limited ingress permitted.
- 5  Protected against low pressure jets of water from all directions - limited ingress.
- 6  Protected against temporary flooding of water, e.g. for use on ship decks - limited ingress permitted.
- 7  Protected against the effect of immersion between 15 cm and 1 m.
- 8  Protects against long periods of immersion under pressure.

※ The configurations below are mainly used. Other configurations tend to be illogical.

※ IP00/IP11, IP12/IP21, IP22, IP23/IP31, IP32, IP33, IP34/IP41, IP42, IP43, IP44/IP54, IP55, IP56/IP65, IP66, IP67

NEMA Protection Ratings

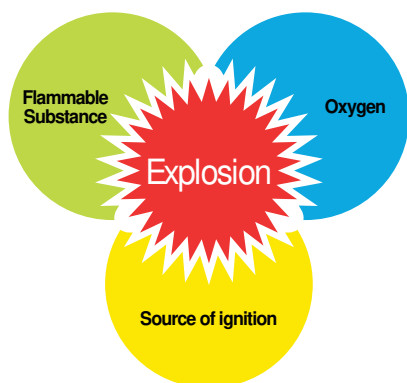
- **NEMA SIZE** : National Electrical Manufacturers Associations standard for enclosure protection rating, NEMA1~6 and 11~13 type is applicable in Non-Hazardous Locations, NEMA 7~10 is applicable in Hazardous Locations.

Type	Usage place	Environment	Protection Grade
1	Indoor Use	Non-explosion proof	Provides protection against falling dirt
2	Indoor Use	Non-explosion proof	Provides protection against falling dirt and dripping/light splashing water
3	Outdoor Use	Non-explosion proof	Provides protection against falling dirt, windblown dust, water (rain, sleet, snow); and prevents damage by the external formation of ice on the enclosure
3R	Outdoor Use	Non-explosion proof	Provides protection against falling dirt, water (rain, sleet, snow); and undamaged by the external formation of ice on the enclosure
3S	Outdoor Use	Non-explosion proof	Provides protection against falling dirt, water (rain, sleet, snow); and external mechanism operable when ice laden
4	Indoor/ Outdoor Use	Non-explosion proof	Provides protection against falling dirt, windblown dust, water (rain, sleet, snow splashing water, and hose directed water); undamaged by the external formation of ice on the enclosure
4X	Outdoor Use	Non-explosion proof	Same as Type4 with additional level of protection against corrosion
5	Indoor Use	Non-explosion proof	Provide protection against falling dirt and settling airborne dust, lint, fibers, and flyings, dripping/light splashing water
6	Indoor/ Outdoor Use	Non-explosion proof	Provides protection against falling dirt; and hose directed water and the entry of water during occasional temporary submersion at a limited depth
6P	Outdoor Use	Non-explosion proof	Provides protection against falling dirt; and hose directed water and the entry of water during prolonged submersion at a limited depth
7	Outdoor Use	Explosion proof	Enclosures constructed for indoor use in hazardous (classified) locations for gas
8	Indoor/ Outdoor Use	Explosion proof	Enclosures constructed for either indoor or outdoor use in hazardous (classified) locations for explosion proof construction by oil enclosure
9	Indoor Use	Explosion proof	Enclosures constructed for indoor use in hazardous (classified) locations for dust
10	Indoor/ Outdoor Use	Explosion proof	Enclosures constructed to meet the requirements of the Mine Safety and Health Administration, 30 CFR, Part 18.
11	Indoor Use	Non-explosion proof	Provides protection against the corrosive effects of liquids and gases
12	Indoor Use	Non-explosion proof	Provides protection to personnel against access to hazardous parts, against falling dirt and circulating dust, lint, fibers, and dripping/light splashing water
12K	Indoor Use	Non-explosion proof	Same as Type 12 for enclosures constructed with knockouts
13	Indoor Use	Non-explosion proof	Provide protection against falling dirt and circulating dust, lint, fibers, flyings, dripping/light splashing water, spraying, splashing, and seepage of oil and non-corrosive coolants.

- **NEMA Ratings and IP Ratings Equivalency Chart** : The chart below is for comparison between two enclosure ratings. It is only for reference and these two rating standards are not exactly converted.

NEMA ENCLOSURE TYPE	IP ENCLOSURE TYPE
1	IP23
2	IP30
3	IP64
4	IP66
4X	IP66
6	IP67
12	IP55 IP65
13	IP65

Explosion Proof Technical Data



Technical Data for Explosion Proof Products

- 3 elements of explosion**
 Flammable substance, ignition source, and oxygen are the 3 elements of an explosion. The explosion will occur when the three components are met. If one of the three components does not exist the explosion will not occur.
- What is explosion proof?**
 Preventing the combination of the 3 elements of explosion.
- Explosion proof product**
 Typically, products will include electrical parts that can be an explosion ignition source. However, explosion proof products are designed to prevent spark/ ignition.

Explosion Proof Structure Classifications

The data indicated below are some of the classification specifications by structure type of the explosion proof products. Furthermore, there are mold explosion proof structure, charging explosion proof structure and special explosion proof structure. The explosion proof classification structure is separated depending on product application areas.

Flame Proof		Ex d Zone1, 2		All electrical circuits are enclosed in a house strong enough to contain any explosion or fire that may take place on the inside.
Purged/ Pressurized		Ex p Zone1, 2		Type of protection in which the protective inert gas inside the enclosure is maintained at a higher pressure than that of the surrounding atmosphere.
Increased Safety		Ex e Zone1, 2		Electrical circuits incorporates special measures to reduce the probability of excessive temperatures and the occurrence of arcs and sparks in normal service.
Non-Sparking		Ex n Zone2		Method of protection for electrical equipment designed so that it will not ignite the surrounding explosive atmosphere in normal operation and under certain fault conditions specified in the standard.
Intrinsic Safety		Ex i Zone 0, 1, 2		The electrical energy available in circuits and equipment, is limited to a level to low to ignite the most easily ignitable mixtures in a hazardous area.
Dust Explosion Proof		Ex td Zone 21, 22		The apparatus is enclosed in a manner that will exclude ignitable amounts of dusts and will not permit arcs, sparks or heat generated or liberated inside the enclosures to cause ignition of exterior dust accumulations on the enclosure or of atmospheric dust suspensions in the vicinity of the enclosure.

Technical Data of Explosion Proof

Classification by Group

Explosion proof equipment is classified as below depending on the risk characteristic of explosive gas.

EXPLOSION GROUP FLAMMABLE	FLAMMABLE SUBSTANCE	FLAMMABILITY
I	Methane	
II A	Acetone, Petrol, Methanol, Propane, Toluene	Low
II B	Ethylene, City gas	High
II C	Hydrogen, Acetylene, Carbon sulphide	Very High

Temperature Class Definition

The temperature class is defined as below depending on the surface temperature of the explosion proof equipment.

The range of maximum surface temperature per temperature class	
The range of maximum surface temperature	temperature class
300°C - 450°C	T1
200°C - 300°C	T2
135°C - 200°C	T3
100°C - 135°C	T4
85°C - 100°C	T5
Below 85°C	T6

The Ignition Class and Temperature of The Explosive Gas

- 1) If the temperature class gets higher from T1 to T6, the ignition temperature gets lower.
- 2) If the explosion group changes from I to IIC, the explosion gets bigger.

	T1(G1)	T2(G2)	T3(G3)	T4(G4)	T5(G5)	T6(G6)
I	Methane					
II A	Acetone, Ethane Ethyl ethanoate Ammonia Benzol(Pure) Ethanoic acid Carbon oxide Methane, Methanol Propane, Toluene Acetic acid Ethyl acetate Ethyl chloride Carbon Monoxide Methylene Chloride Naphthalene, Phenol	Ethanol i-Amyl acetate n-Butane n-Butyl alcohol Ethyl alcohol Cyclohexane Acetic anhydride	Benzene Diesel fuel Aircraft fuel Heating oils n-Hexane Petroleum spirit - Gen Jet propulsion fuel Heating fuel DIN 51603	Acetaldehyde Ethyl ether		
II B	Town gas Coal gas (lighting gas)	Ethylene Ethylene oxide	Ethylene Ethylene oxide	Ethyl ether		
II C	Hydrogen	Ethine(Acetylene)				Carbon disulphide

Multifunctional Type Feature

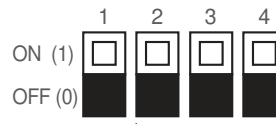
■ How to set up the multifunctional products(MP3)

- Multifunctional type products can play MP3 sounds by using an SDcard and can also play WS (5 Warning sounds), WP (5 special warning sounds 1st Group), WM (5 Melodies), WA (5 Alarms), WO (5 special warning sounds 2nd Group), and WN (5 special warning sounds 3rd Group) when not using a SDcard.
- Includes seven different functions. For example, it is able to playback the message continuously with the continuous playback function for warning message that needs to be repeated often.

■ Function setting



1 Sound setting switch



Group Choice in Bit Input Mode

- 001 : WS (5 Warning sounds)
- 010 : WP (5 special warning sounds 1st Group)
- 011 : WM (5 Melodies)
- 100 : WA (5 Alarms)
- 101 : WO (5 special warning sounds 2nd Group)
- 110 : WN (5 special warning sounds 3rd Group)

Sound Selection

- 0 : Built-in sound
- 1 : SDcard(MP3)

- #1 switch from the sound setting switch is for selecting Built-in sound/ SDcard
- #2 – #4 switch is for selecting a group of sound incase you have selected bit input mode

2 SDcards

- The SDcard is a compact flash memory card for storing MP3 files.
- After saving the MP3 files in the SDcard with the specified format, insert the card into the SDcard slot and switch the sound setting switch to ON so the product will be able to play sounds from the SDcard.

3 PLAY MODE setting switch

- PLAY MODE setting switch is used to choose the channel input method or select various play modes. Refer to the table below for switch features.
- Switch #0 and #9 is not used.

1	Bit Input Mode	5 sounds can be played from the selected group (choose one group from six groups) Play sound only once (if using sequential signal input or pulse signal input)
2	Binary Input Mode	Up to 30 sounds available for each model. Plays sound only once (sequential signal input only)
3	Bit Input Hold Playback Mode	5 sounds can be played from the selected group (choose one group from six groups) The sound is repeated if the input signal is maintained. (sequential signal input only) If the STOP signal is inputted, the sound is turned off, and if the STOP signal is disabled the sound is played repeatedly
4	Binary Input Hold Playback Mode	Up to 30 sounds available for each model The sound is repeated if the input signal is maintained. (sequential signal input only) If the STOP signal is inputted, the sound is turned off, and if the STOP signal is disabled the sound is played repeatedly
5	Bit Input Sound Reduction Mode	5 sounds can be played from the selected group (choose one group from six groups) You can reduce the volume(15dB) by using a separate volume reduction signal line (same as volume reduction signal input)
6	Binary Input Sound Reduction Mode	Up to 30 sounds available for each model You can reduce the volume(15dB) by using a separate volume reduction signal line (same as volume reduction signal input)
7	Bit Input Sequence Memory Playback Mode	5 sounds can be played from the selected group (choose one group from six groups) If the sound is inputted in a order, it will remember the order and play each sound about 3 seconds . The last input channel is fully played (bit input mode only)
8	Test Mode	In test mode, Ch1 of group is automatically played back repeatedly. To end the test mode, switch back to the other modes.

4 VOLUME

- You can adjust the speakers sound output by using the volume dial.

Sound Pattern and Combination for Multifunctional Product

■ Sound patterns for multifunctional products

- Multifunctional product has 30 pre-recorded sound tones.
- 30 sound tones in binary input mode supported. Bit input mode has 5 sound tones within 1 group among 6 groups.

• Bit input mode's sound tone combinations

ON = 1 / OFF = 0					Left channel switch allows user to select from 31 sound tones. Channel switch will be substituted for external wiring in case of LC type products.								
ON	Ch1	Ch2	Ch3	Ch4	Ch5	Sound	Ch	Sound Tone	Sound	Ch	Sound Tone		
OFF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WS	5 Warning Sounds	Ch1	Fire.A-ANG(560Hz~1.5kHz)	WA	5 Alarms	Ch1	Beep Intermittent
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch2			Emergency WA-U(Yelp)(600Hz~1.5kHz)	Ch2			Door Chime	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch3			Ambulance PI-PO(Hi-low)(450Hz~900Hz)	Ch3			Phone Ring	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch4			Machinery Fault(820Hz)	Ch4			PI.PI.PI Short	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch5			High Expansion(1kHz)	Ch5			Tripping Beat	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WP	5 Special Warning Sounds (1 st Group)	Ch1	Fire.A-ANG(560Hz~1.5kHz)	WO	5 Special Warning Sounds (2 nd Group)	Ch1	Rel rel rel(730Hz~920Hz)
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch2			Abandon Alarm(820Hz)	Ch2			Slow Ambulance PI-PO(820Hz~1.05kHz)	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch3			Machinery Fault(820Hz)	Ch3			Wye yong Wye yong(770Hz~1.2kHz)	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch4			High Expansion(1kHz)	Ch4			Phone ring 2(740Hz~910Hz)	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch5			7 Short Pl. / 1 Long(1kHz)	Ch5			Fire.A-ANG(770Hz~1.11kHz)	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WM	5 Melodies	Ch1	Sweet Home	WN	5 Special Warning Sounds (3 rd Group)	Ch1	Oit Oit(500Hz~1.11kHz)
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch2			For Elise	Ch2			Pi o Pi o(940Hz~2.19kHz)	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch3			Cuckoo's Waltz	Ch3			Slow Di o Di o(680Hz~840Hz)	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch4			Piano Sonata	Ch4			Li long Li ling(420Hz~470Hz)	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch5			Turkish March	Ch5			911 Siren(500Hz~1kHz)	

• Binary input mode's sound tone combinations

ON = 1 / OFF = 0						Left channel switch allows the user to select from 30 available sound tones. Channel switch will be substituted for external wiring in case of LC type products.		
ON	Ch1	Ch2	Ch3	Ch4	Ch5	No.	Sound tone	Frequency
OFF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	No sound	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	Fire.A-ANG	560Hz~1.5kHz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	Emergency WA-U(Yelp)	600Hz~1.5kHz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	Ambulance PI-PO(Hi-low)	450Hz~900Hz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	Pi-ik Pi-ik	820Hz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	Machinery Fault	820Hz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	High Expansion	1kHz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	Alarm	1kHz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	Sweet Home	-
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9	For Elise	-
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10	Cuckoo's Waltz	-
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11	Piano Sonata	-
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12	Turkish March	-
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13	Magic Flute	-
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14	Badinerie	-
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15	Pineapple Rag	-
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16	Beep Intermittent	-
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17	Door Chime	-
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18	Phone Ring	-
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19	PI.PI.PI Short	-
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20	Tripping Beat	-
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21	Rel rel rel	730Hz~920Hz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22	Slow Ambulance PI-PO	820Hz~1.05kHz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23	Wye yong Wye yong	770Hz~1.2kHz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24	Phone ring 2	740Hz~910Hz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25	Fire.A-ANG	770Hz~1.11kHz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26	Oit Oit	500Hz~1.11kHz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27	Pi o Pi o	940Hz~2.19kHz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28	Slow Di o Di o	680Hz~840Hz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29	Li long Li ling	420Hz~470Hz
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30	911 Siren	150Hz~1kHz

How to Use a MP3 Type Product

MP3-type models have 30 or 31 built-in alarm sounds and the users can play their voice messages or music files(MP3). You can choose two methods for playing up to 31 sounds with the binary input method. While the bit input method can only play 5 sounds from #1 to #5.

■ What is a MP3?

- MP3 is a audio compression technology(Audio layer-3) design by MPEG (Motion Picture Experts Group)
MP3 (MPEG-1 Audio Layer-3) is a standard technology and format for compressing a sound sequence into a very small file while preserving the original level of sound quality when it is played.
- Extension of the MP3 file can be found as “*.mp3”, and any voice message, alarm message, and music can be played and saved as MP3 files.

■ What is a SDcard?



SD memory card is a compact flash memory card for storing various data such as MP3s or document files, Models with MP3 features can save voice messages or alarm messages in the SDcard.

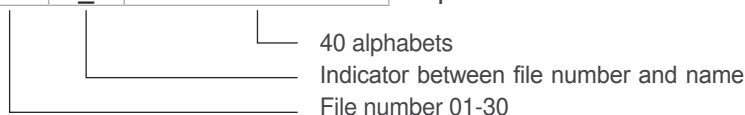
* SDcard sold separately.

Saving a MP3 file

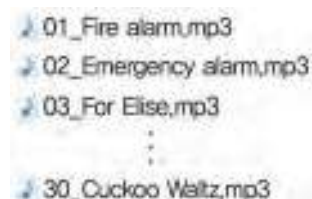
- MP3 file can be saved and played in accordance with the standards specified by filename.
- Using binary input method according to the specifications given in the file name, a SDcard which is used in special alarm type models(MP3) can save up to 31 sounds, multifunctional type models can save and play up to 30 sounds.
- Using bit input method according to the specifications given in the file name, you can select and play up to five sounds from the MP3 file.

User-defined sound(MP3) type

23 _ For Elise .mp3



[Example]



Binary input and Bit input method

Special alarm type models and multifunctional type models are divided into Binary input method or Bit input method depending on the source selection method.

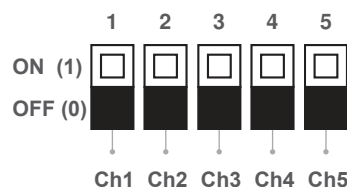
■ Binary input

ON = 1 / OFF = 0

	1	2	3	4	5
ON	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OFF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No.	1	2	3	4	5
0	0	0	0	0	0
1	0	0	0	0	1
2	0	0	0	1	0
:	:	:	:	:	:
31	1	1	1	1	1

You can only show 2 numbers with 1 switch “0”, “1”. With 5 switches you can have 31 combinations. Selecting one sound from 5 switches is the Binary input method.

■ Bit input



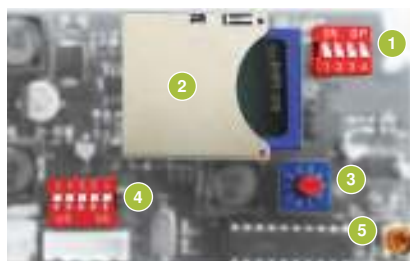
The Bit input method only recognizes one of the 5 switches at a time. This method doesn't support two inputs at once. The number of combinations is small, but it is much more convenient to remember the channel number.

How to Use a MP3 Type Product

■ MP3 supported model basic description

- MP3 supported products can play 30~31 built-in sounds or MP3 files saved in an SDcard.
- Binary input method can play up to 30 ~ 31 sounds, and Bit input method can play 5 sounds in accordance with the standards specified by filename.
- Can choose and play 5 sounds from #1 to #5.

<Switch select type>

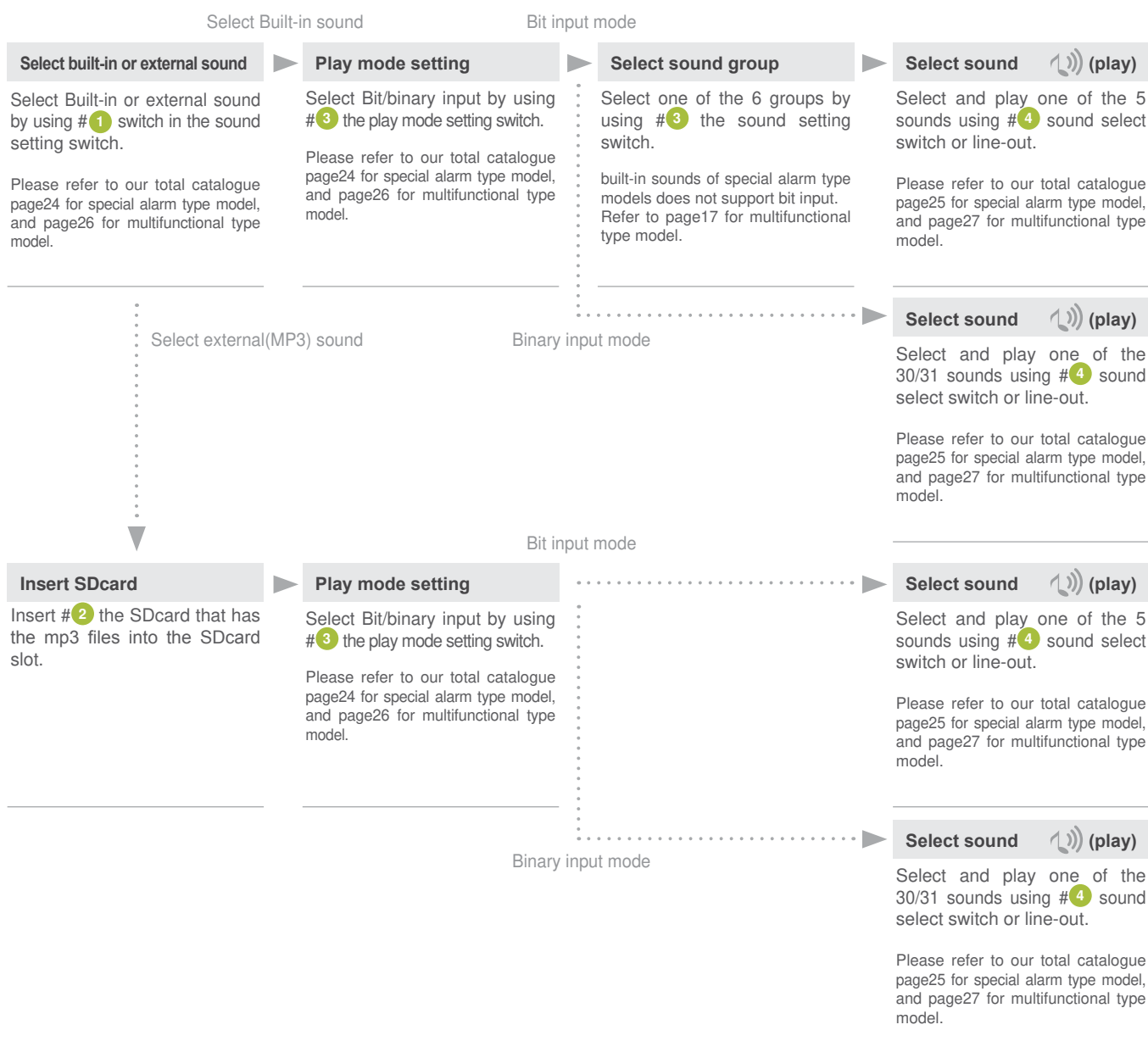


<Line-out type>



- ① Sound setting switch
- ② MP3 playable SDcard
- ③ Play mode setting switch
- ④ Sound select switch
- ⑤ Volume

■ How to set-up a MP3 type product



Wireless Networks System

- Ideal for factory automation environments. This system aims to increase productivity by periodically monitoring the operational ratio and the failure mode status of each equipment.
- Design for remote monitoring and control of equipment via wireless network and smartphone platform
- Control up to 768 devices using ZIGBEE wireless communication
- 1 wireless network system can contain up to 24 groups, each group consists of 32 devices.
- Using multiple GATEWAY ROUTERS with this system allows for redundancy and communication failure prevention in the event of a specific GATEWAY issue.
- Networks Topology : Mesh topology
- Communication Standard : ZigBee(IEEE802.15.4)
- Frequency : 2405Mhz- 2480Mhz
- Transmission Distance : 100 Meters between devices (Line of sight)

• Wireless Network System Components

PC Software	Mobile Application	GATEWAY	USB DONGLE	Warning Light

- PC Software : PC Software The computer program is used for monitoring and controlling the wireless network system. The program also enables smartphones to access the wireless network system by creating a web server.
- Mobile Application : The mobile application enables users to access, monitor, and control the wireless network system.
- GATEWAY : The gateway is connected to a computer via a USB (RS-232) or Ethernet connection. The Gateway is enable to transmit information from the wireless devices to the computer and is also enable to transmit control signals of the computer to the wireless devices.
- USB DONGLE : By using the USB interface, the USB dongle is enable to transmit information from the wireless devices to the computer and also enable to transmit control signals of the computer to the wireless devices.
- Warning Light : The wireless warning light executes commands received from the PC and function as a REPEATER to transmit the control signal to other devices.

1. Connection Methods depending on different System Type

1) USB Connection

CASE1. Communication via USB Dongle

Connect USB dongle to USB port. This connection method is suitable for systems that connects small number of devices to an individual wireless network.



CASE2. Communication via Gateway

Connect USB cable to USB PORT. This connection method is suitable for systems that connects small number of devices to an individual wireless network.



2) Ethernet Connection

CASE1. Communication via Ethernet

Ethernet cable to Ethernet port. This connection method is suitable for systems that connects small number of devices to an individual wireless network.



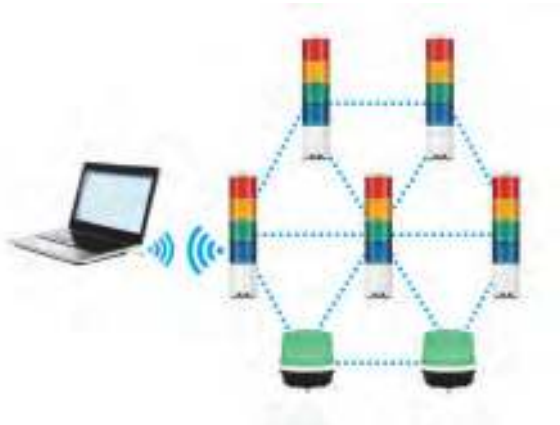
CASE2. Communication via a Gateway

This connection method is suitable for a factory automation environment that connects groups of equipment to a wireless network connection
Can control each equipment individually via smart phone

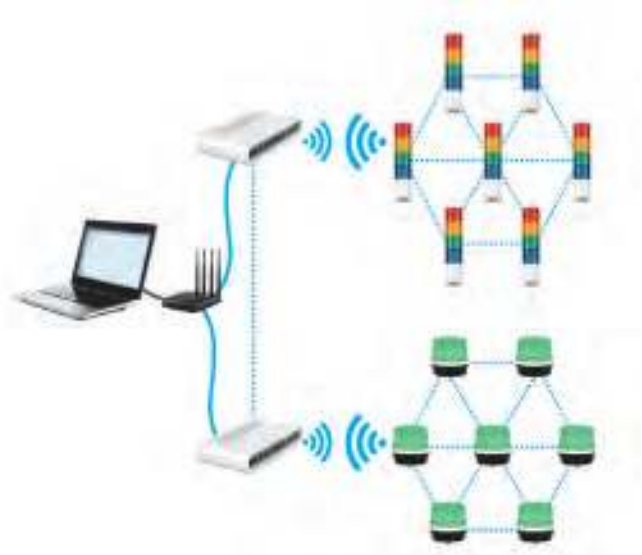


Wireless Networks System Configuration

2. System Configuration



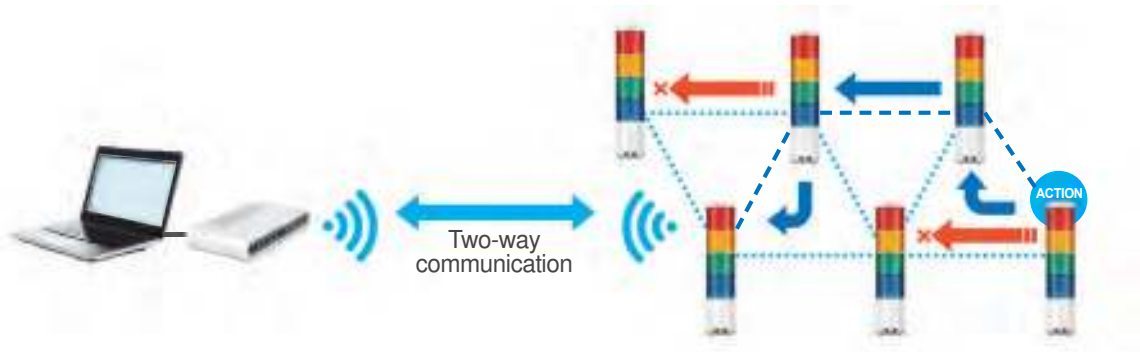
<Communication via USB Dongle>



<Communication via GATEWAY>

• Wireless Mesh Network

The Wireless Mesh Network automatically selects the optimal path of communication



Wireless Mesh Network Stable Wireless Route ———> Unstable Wireless Route - - - - - X

• Device Monitoring & Control

- The operation status of each equipment in the automation system is monitored and stored in a CSV file on a daily basis to analyze the operation rate of the equipment.
- The control room can control the entire network of equipment or a specific equipment while also delivering a notice to the operator.



• Alarm Notification Service

- The operator is able to check the status of system failure or device malfunction anytime and anywhere by a mobile phone.



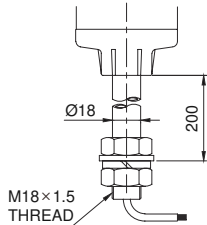


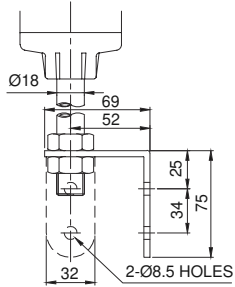

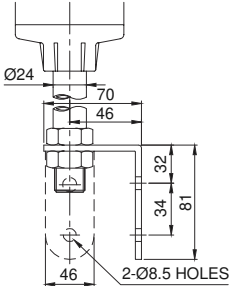


Tower Light Mounting Brackets

Tower Light Mounting Brackets



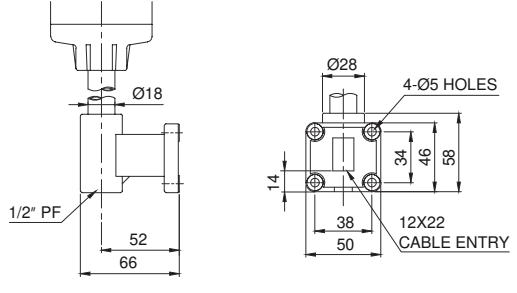


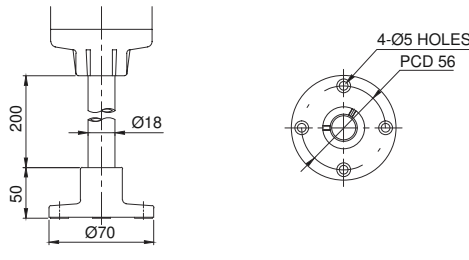

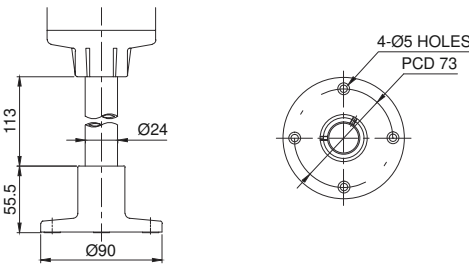
User can select from a variety of mounting brackets options depending on their application conditions.

(Units : mm)

Features	Product Image	Technical Diagram for Applicable Models
<p>Standard type pole mount installation. There is a screw at the end of the pole and it is equipped with nut for installation.</p> <p>Material : Steel</p> 	 <p>18mm SCREW & NUT (Standard Type)</p>	 <p>ST45B, ST45BF, ST45L, ST45LF, ST56B, ST56BF, ST56L, ST56LF, ST56EL, ST56ELF, STC45L, STC45EL, STC56L, QT50L, QT50LF, QT50LS, QT50LR, STG40L, STG40LF, STG50L, STG50LF, ST45L-ETN, ST56EL-ETN, ST56L-ETN, ST45L-USB, ST56EL-USB, ST56L-USB</p>
<p>L-type bracket is attached to the pole mount tower light for installation to the side of the equipment.</p> <p>Material : Steel</p> 	 <p>LB18</p>	 <p>ST45B, ST45BF, ST45L, ST45LF, ST56B, ST56BF, ST56L, ST56LF, ST56EL, ST56ELF, ST56WL, STC45L, STC45EL, STC56L, QT50L, QT50LF, QT50LS, QT50LR, STG40L, STG40LF, STG50L, STG50LF, ST45L-ETN, ST56EL-ETN, ST56L-ETN, ST45L-USB, ST56EL-USB, ST56L-USB</p>
	 <p>LB24</p>	 <p>ST80B, ST80BF, ST80L, ST80LF, ST80EL, ST80ELF, STC80L, STC80LF, STC80EL, STC80ELF, QT70L, QT70LF, QT70LS, QT70LR, ST80EL-ETN, ST80L-ETN, ST80EL-USB, ST80L-USB</p>



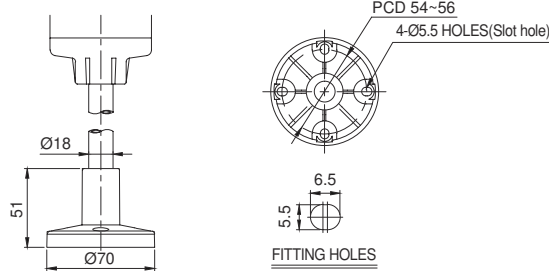


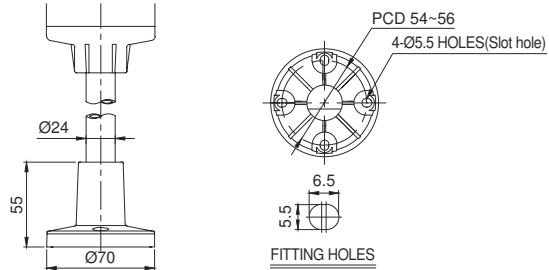


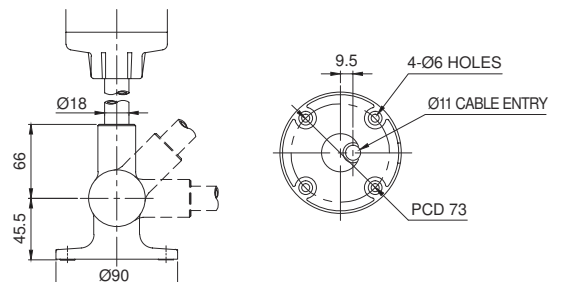


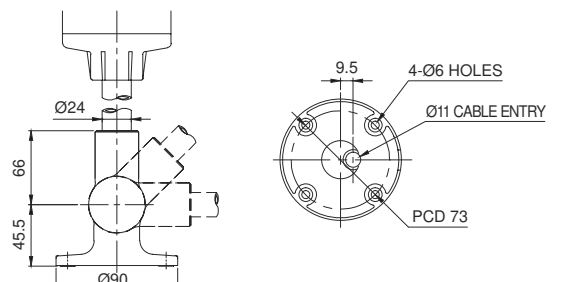
Tower Light Mounting Brackets

(Units : mm)

Features	Product Image	Technical Diagram for Applicable Models
<p>High-end L-type bracket is attached to the pole mount tower light for side of equipment installations. Wires can be threaded through the side of the bracket or come out at the bottom. The threads inside the bottom of the bracket can enable use of cable connectors.</p> <p>Material : PC Color : Ivory</p> 	 <p>LW18</p>	 <p>ST45B, ST45BF, ST45L, ST45LF, ST56B, ST56BF, ST56L, ST56LF, ST56EL, ST56ELF, STC45L, STC56EL, STC56L, QT50L, QT50LF, QT50LS, QT50LR, STG40L, STG40LF, STG50L, STG50LF</p>
<p>Round-shaped bracket for horizontal surface installation.</p> <p>Material : Al Color : Silver</p> 	 <p>SZ18</p>	 <p>ST45B, ST45BF, ST45L, ST45LF, ST56B, ST56BF, ST56L, ST56LF, ST56EL, ST56ELF, STC45, STC56EL, STC56L, QT50L, QT50LF, QT50LS, QT50LR, STG50L, STG40LF, STG50L, STG50LF</p>
	 <p>SZ24</p>	 <p>ST80B, ST80BF, ST80L, ST80LF, ST80EL, ST80ELF, STC80L, STC80LF, STC80EL, STC80ELF, QT70L, QT70LF, QT70LS, QT70LR</p>



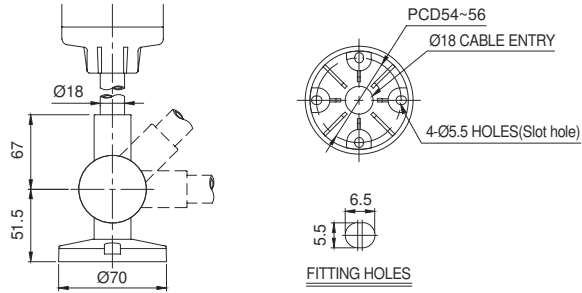

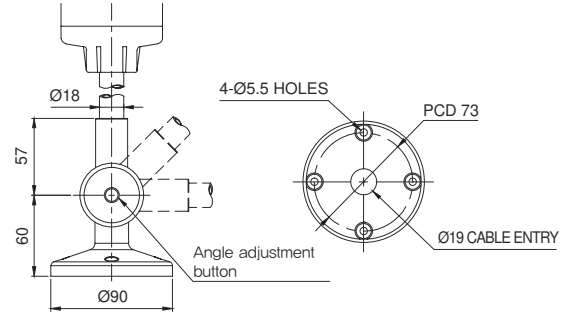


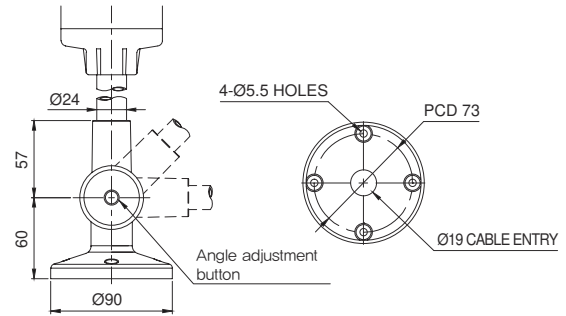
Tower Light Mounting Brackets

(Units : mm)

Features	Product Image	Technical Diagram for Applicable Models
<p>Round-shaped bracket for horizontal surface installation.</p> <p>Material : PC Color : Black</p> 	 <p>QZ18</p>	 <p>ST45B, ST45BF, ST45L, ST45LF, ST56B, ST56BF, ST56L, ST56LF, ST56EL, ST56ELF, STC45L, STC56EL, STC56L, QT50L, QT50LF, QT50LS, QT50LR, STG40L, STG40LF, STG50L, STG50LF</p>
<p>A angle adjustable bracket (15 degree intervals for a range of 0~180 degrees) enables easy vertical, horizontal, and slanted installation.</p> <p>Material : Al Color : Silver</p> 	 <p>QZ24</p>	 <p>ST80B, ST80BF, ST80L, ST80LF, ST80EL, ST80ELF, STC80L, STC80LF, STC80EL, STC80ELF, QT70L, QT70LF, QT70LS, QT70LR</p>
<p>A angle adjustable bracket (15 degree intervals for a range of 0~180 degrees) enables easy vertical, horizontal, and slanted installation.</p> <p>Material : Al Color : Silver</p> 	 <p>SL18</p>	 <p>ST45B, ST45BF, ST45L, ST45LF, ST56B, ST56BF, ST56L, ST56LF, ST56EL, ST56ELF, STC45L, STC56EL, STC56L, QT50L, QT50LF, QT50LS, QT50LR, STG40L, STG40LF, STG50L, STG50LF</p>
	 <p>SL24</p>	 <p>ST80B, ST80BF, ST80L, ST80LF, ST80EL, ST80ELF, STC80L, STC80LF, STC80EL, STC80ELF, QT70L, QT70LF, QT70LS, QT70LR</p>



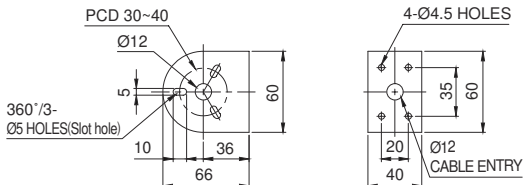


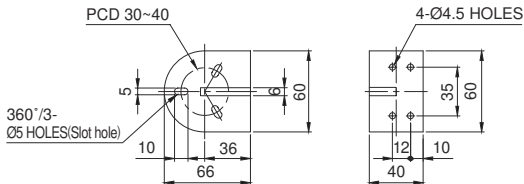


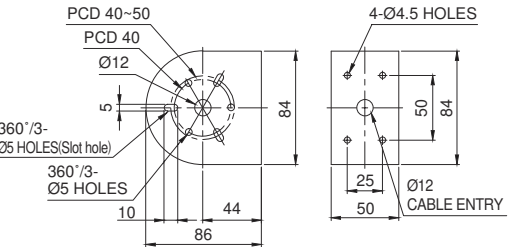


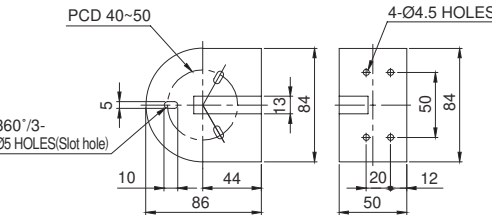
Tower Light Mounting Brackets

(Units : mm)

Features	Product Image	Technical Diagram for Applicable Models
<p>A angle adjustable bracket (5 degree intervals for a range of 0~180 degrees) enables easy vertical, horizontal, and slanted installation.</p> <p>Material : PC Color : Black</p> 	 <p>QL18</p>	 <p>ST45B, ST45BF, ST45L, ST45LF, ST56B, ST56BF, ST56L, ST56LF, ST56EL, ST56ELF, STC45, STC56EL, STC56L, QT50L, QT50LF, QT50LS, QT50LR, STG40L, STG40LF, STG50L, STG50LF</p>
<p>QLA bracket is angle-adjustable with the adjustment button located on the side. It enables 3 angle adjustments at 0, 45, 90 degrees.</p> <p>Material : PC Color : Black</p>	 <p>QLA18</p>	 <p>ST45B, ST45BF, ST45L, ST45LF, ST56B, ST56BF, ST56L, ST56LF, ST56EL, ST56ELF, STC45, STC56EL, STC56L, QT50L, QT50LF, QT50LS, QT50LR, STG40L, STG40LF, STG50L, STG50LF, STG40L, STG40LF, STG50L, STG50LF</p>
	 <p>QLA24</p>	 <p>ST80B, ST80BF, ST80L, ST80LF, ST80EL, ST80ELF, STC80L, STC80LF, STC80EL, STC80ELF, QT70L, QT70LF, QT70LS, QT70LR</p>



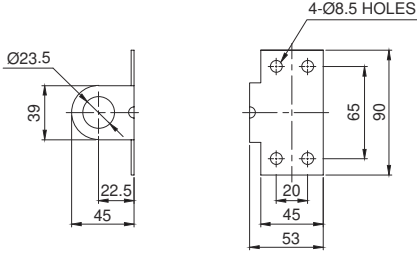

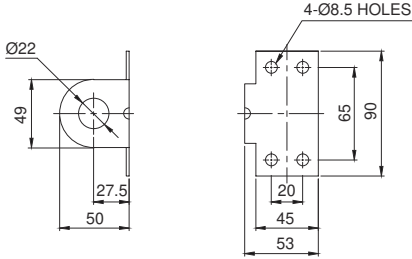
Tower Light Mounting Brackets

(Units : mm)

Features	Product Image	Technical Diagram for Applicable Models
<p>Bracket options for direct mount tower light installation.</p> <p>Material : Steel Color : Silver, Ivory</p> 	 <p>TWS45</p>	 <p>ST45MB, ST45MBF, ST45ML, ST45MLF, ST56MB, ST56MBF, ST56ML, ST56MLF, ST56MEL, ST56MELF, STG40ML, STG40MLF, STG50ML, STG50MLF, STG50MFL, STC45ML, STC45MLF, STC56ML, STC56MLF, STC56MEL, STC56MELF, QTG50ML, QTG50MLF, QTG60ML, QTG60MLF, QTC50ML, QTC50MLF, QTC60ML, QTC60MLF, QTR50ML, QTR50MLF, QTR60ML, QTR60MLF, QT50ML, QT50MLF, QT50MLS, QT50MLR</p>
<p>High-end bracket options for direct mount tower light installation. Bracket structure allows for contained and tidy wiring with no exposed wires.</p> <p>Material : PC Color : Black, Ivory</p> 	 <p>TWA45</p>	 <p>ST45MB, ST45MBF, ST45ML, ST45MLF, ST56MB, ST56MBF, ST56ML, ST56MLF, ST56MEL, ST56MELF, STG40ML, STG40MLF, STG50ML, STG50MLF, STG50MFL, STC45ML, STC45MLF, STC56ML, STC56MLF, STC56MEL, STC56MELF, QTG50ML, QTG50MLF, QTG60ML, QTG60MLF, QTC50ML, QTC50MLF, QTC60ML, QTC60MLF, QTR50ML, QTR50MLF, QTR60ML, QTR60MLF, QT50ML, QT50MLF, QT50MLS, QT50MLR</p>
<p>High-end bracket options for direct mount tower light installation. Bracket structure allows for contained and tidy wiring with no exposed wires.</p> <p>Material : PC Color : Black, Ivory</p> 	 <p>TWS80</p>	 <p>ST80MB, ST80MBF, ST80ML, ST80MLF, STC80ML, STC80MLF, QTG70ML, QTG70MLF, QTG70ML, QTC70ML, QTC70MLF, QTR70ML, QTR70MLF, QT70ML, QT70MLF, QT70MLS, QT70MLR</p>
<p>High-end bracket options for direct mount tower light installation. Bracket structure allows for contained and tidy wiring with no exposed wires.</p> <p>Material : PC Color : Black, Ivory</p> 	 <p>TWA80</p>	 <p>ST80MB, ST80MBF, ST80ML, ST80MLF, STC80ML, STC80MLF, QTG70ML, QTG70MLF, QTG70ML, QTC70ML, QTC70MLF, QTR70ML, QTR70MLF, QT70ML, QT70MLF, QT70MLS, QT70MLR</p>

Tower Light Mounting Brackets

(Units : mm)



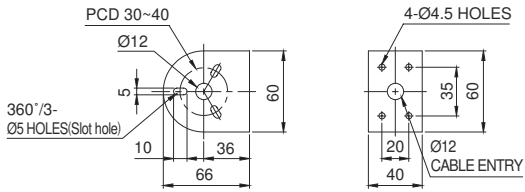

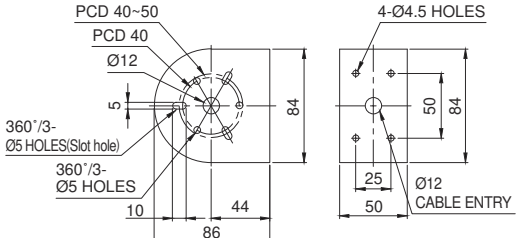


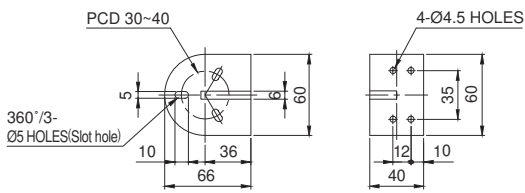

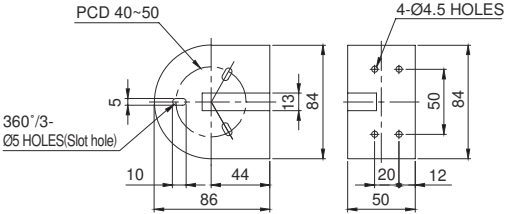
Features	Product Image	Technical Diagram for Applicable Models
<p>Bracket options for installation of the direct mount slim tower light to the side of equipment.</p> <p>Material : Steel Color : Silver, Ivory</p> 	 <p>STAWB25</p>	 <p>4-Ø8.5 HOLES</p> <p>Ø23.5 39 22.5 45</p> <p>20 45 53</p> <p>65 90</p> <p>STA25SLM, STA35SL, STA35SLM</p>
	 <p>STAWB45</p>	 <p>4-Ø8.5 HOLES</p> <p>Ø22 49 27.5 50</p> <p>20 45 53</p> <p>65 90</p> <p>STA45SLM</p>

Warning/ Signal Light Mounting Brackets

Bracket instructions for warning/ signal lights


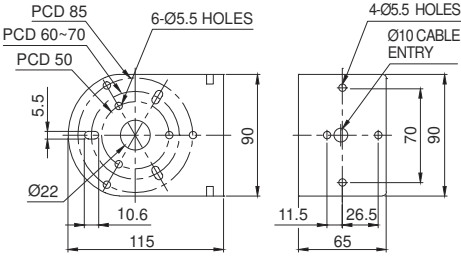

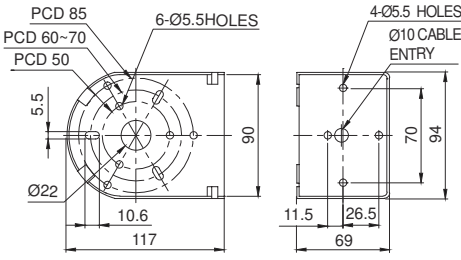
User can select from a variety of bracket options depending on their application conditions.

(Units : mm)

Features	Product Image	Technical Diagram for Applicable Models
<p>Bracket options for direct mount warning/ signal light installation.</p> <p>Material : Steel Color : Silver, Ivory</p> 	 <p>TWS45</p>	 <p>S50B, S50L, S60R, S60LR, S60L, MFL60</p>
<p>Bracket options for direct mount warning/ signal light installation.</p> <p>Bracket structure allows for contained and tidy wiring with no exposed wires.</p> <p>Material : PC Color : Black, Ivory</p>	 <p>TWS80</p>	 <p>S80R, S80RLR, S80U, S80LR, S80L, S80S, S80SOL, MFL80, SMCL80, QMCL80</p>
<p>Bracket options for direct mount warning/ signal light installation.</p> <p>Bracket structure allows for contained and tidy wiring with no exposed wires.</p> <p>Material : PC Color : Black, Ivory</p> 	 <p>TWA45</p>	 <p>S50B, S50L, S60R, S60LR, S60L, MFL60</p>
	 <p>TWA80</p>	 <p>S80R, S80RLR, S80U, S80LR, S80L, S80S, S80SOL, MFL80, SMCL80, QMCL80</p>

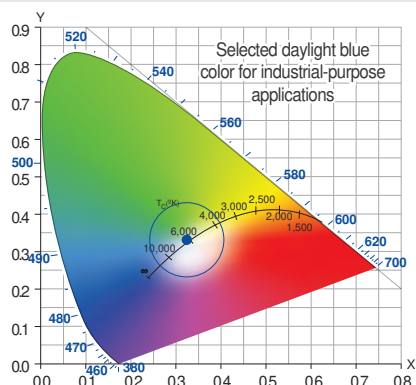
Warning/ Signal Light Mounting Brackets

(Units : mm)

Features	Product Image	Technical Diagram for Applicable Models
<p>Bracket options for direct mount warning/signal light installation.</p> <p>Material : Steel Color : Ivory</p>	 <p style="text-align: center;">SWP125</p>	 <p>S100R, S100E, S100RLR, S100UR, S100URLR, S100U, S100UA, S100LR, S100L, S100S, S125R, S125E, S125RL, S100D, S125D, STDL, STNDL, STND100, STND125</p>
<p>Bracket options for direct mount warning/signal light installation</p> <p>Bracket structure allows for contained and tidy wiring with no exposed wires.</p> <p>Material : PC Color : Ivory</p>	 <p style="text-align: center;">SWM125</p>	 <p>S100R, S100E, S100RLR, S100UR, S100URLR, S100U, S100UA, S100LR, S100L, S100S, S125R, S125E, S125RL, S100D, S125D, STDL, STNDL, STND100, STND125</p>

Technical Information on LED Work Lights

CIE 1931 Color Space Chart



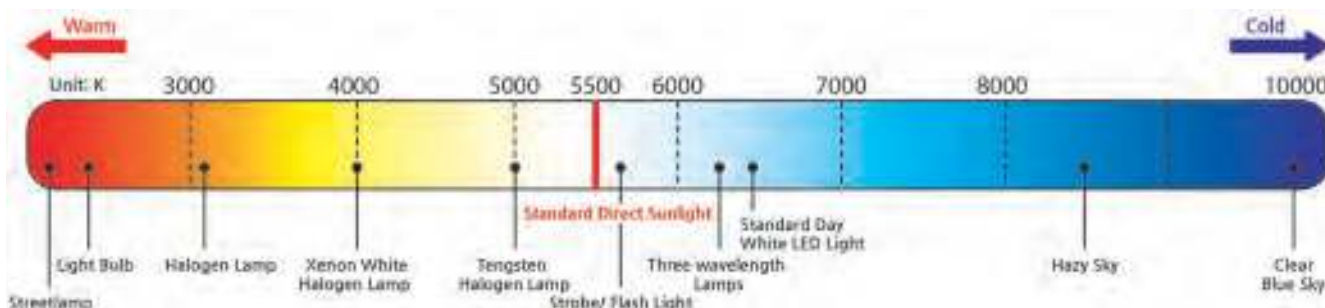
LED Colors are represented by the CIE 1931 RGB color space and CIE 1931 XYZ color space created by the International Commission on Illumination (CIE in 1931).

Color Space Chart is based on the brightness of the color. Green occupies the largest space since it has the largest effect on determining the brightness of colors, while blue color that shows the least effect occupies the smallest area. The mixing ratio of the brightness of the color is 3: 6: 1 (R: G: B), where the green portion occupies the largest space.

White color that is commonly used for work lights is composed of the color green, red, and blue. White color also varies due to the ratio of these three colors. The variation color ratios is referred as the color temperature.

Color Temperature

Unit : K(Kelvin)



The color temperature of a light source is the temperature of an ideal black-housing radiator that radiates light of comparable hue to that light source. The Temperature is conventionally stated in units of absolute temperature, known as Kelvin (K).

The black housing radiates red spectrum when it starts to heat up, and will radiate blue light when the temperature gets even higher.

- Before Sunset : 2,200K (Candlelight, incandescent lamp)
- 40minutes after sunset : 3,000K(Warm white fluorescent lamp, high pressure sodium lamp)
- 2 hours after sunset : 4,000K (White halogen fluorescent lamp)
- Sunlight at noon : 5,800K (Daylight fluorescent lamp)
- Cloudy day : 7,000K (Daylight blue, fluorescent mercury lamp)

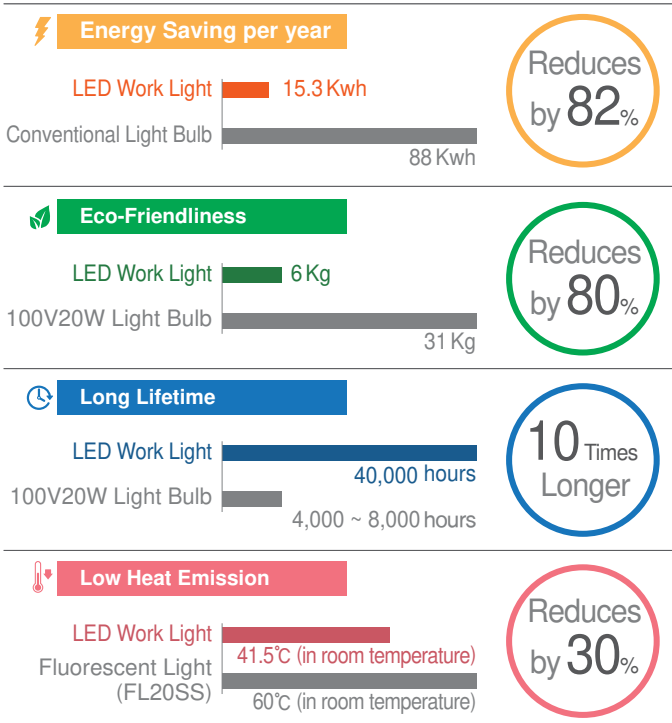
LED Color Wavelength

No.	Color	Wavelength(mm)
1	Red	618-632
2	Amber	585-595
3	Green	518-530
4	Blue	453-465

LED Color Temperature

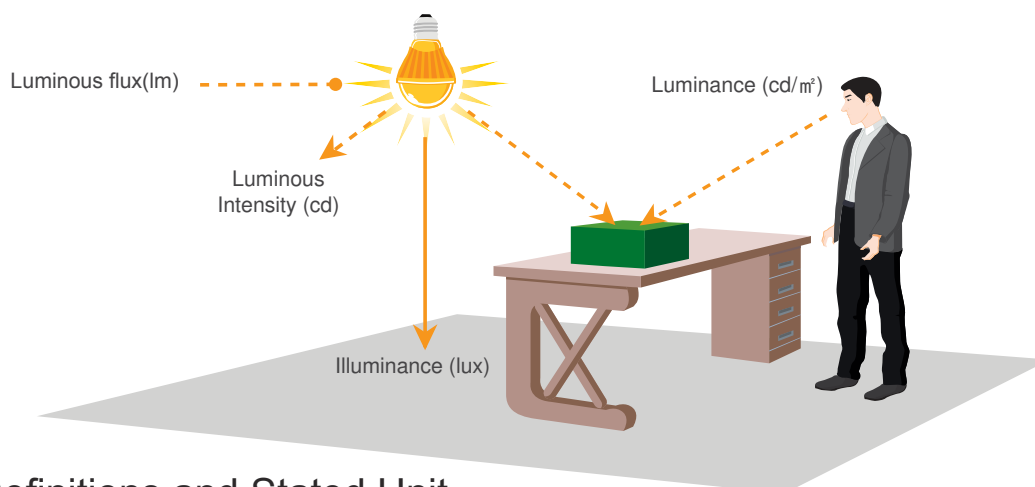
No.	Color	Color Temperature(K)
1	incandescent	2,500-3,500
2	warmwhite	3,500-4,500
3	daylight	4,500-5,500
4	cooldaylight	5,500-7,000

LED Light Energy Saving Chart



Technical Information on LED Work Lights

Understanding of Light Terms



Term Definitions and Stated Unit

Illuminance

Unit : lux

Illuminance is the total Luminous flux incident on a surface per unit area which is conventionally stated as a unit of lux. Specifically, 1 lux equals the amount of light that falls on a one-square-meter surface that is one meter away from a single candle with light speed of 1lm.

Luminous Intensity

Unit : cd

Luminous intensity is a measure of the wavelength-weighted power emitted by a light source in a particular direction per unit solid angle based on the luminosity function(a standardized model of the sensitivity of the human eye). The standard unit of luminous intensity is the candela.

Luminance

Unit : cd/m²

Luminance is a measure of the luminous intensity per unit area of light travelling in a given direction. It describes the amount of light that passes through, emitted or reflected from a particular area, and falls within a given solid angle. The standard unit for luminance is cd(luminance intensity per square meter (cd/m2)).

Luminous flux

Unit : lm

Luminous flux is the measure of the perceived power of light. Standard unit of Luminous flux is the lumen (lm). Usually Luminous flux may be understood as the power of light.

Color Rendering

Unit : Ra

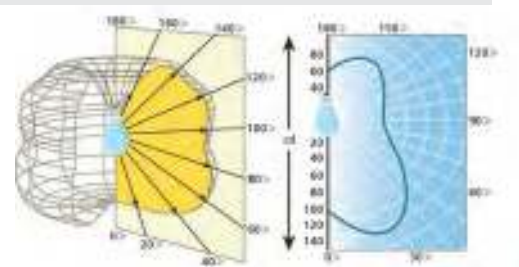
A color rendering index (CRI) is a quantitative measure of the ability of a light source to reveal the colors of various objects faithfully in comparison with an ideal or natural light source. Numerically, the highest possible CIE Ra value is 100, which would only be given to a source identical to standardized daylight or a body of black color, and its value drops to negative values for some light sources. The higher the CRI value is, the better the color rendering ability is. Light sources with a CRI of 85 to 90 are considered good at color rendering.



High Color Rendering(Ra80) Low Color Rendering(Ra70)

Light Distribution Curve

Light distribution curve, provides information on how light is emitted from a lamp or light fixture. The diagram represents a section cut through the fixture and shows the intensity of light emitted in each direction. The portion of the graph above the horizontal 90°-270° line indicates light that shines above the fixture (indirect), while the portion of the graph below represents light shining down (direct). The straight lines radiating from the center point identify the angle of the light emitted while the circles represent the intensity.



Technical Certification

Qlight products are designed to meet strict quality and technical standards. Thus, the Qlight brand is widely recognized for its high quality and technical innovations from leading institutions around the world.



ISO International Organization for Standardization

Qlight quality assurance systems have been certified by ISO by applying the ISO 9001:2008, KS Q ISO 9001:2009 regulation.



IECEX International Explosion Proof certification (IECEX)

Certified that Qlight's products are being manufactured and managed according to international standards.



ATEX The European Regulatory Framework of Manufacture, Installation and Use of Equipment in Explosive Atmospheres

Qlight explosion proof products comply with ATEX Directives 94/9/EC.



NEPSI National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation

Qlight's design and manufacturing system meets the People's Republic of China National explosion-proof Standard. (Chinese Standard-GB3836/GB12476)



KGS Korea Gas Safety Corporation

Approved from "Korea Gas Safety Corporation" that Qlight's design and manufacturing system meets the standard of KGS.



KOSHA Korea Occupational Safety and Health Agency

Approved by the "Korea Occupational Safety and Health Agency" that Qlight's design and manufacturing system meets the standard of KOSHA.



ABS American Bureau of Shipping

Qlight's design and quality assurance system has been certified by the American Bureau of Shipping.



LR Lloyd's Register

Qlight design and quality assurance system has been certified from Lloyd's Register.



CCS China Classification Society

Qlight design and quality assurance system has been certified by the China Classification Society.



RMRS Russian Maritime Register of Shipping

Qlight design and quality assurance system has been certified from Russian Maritime Register of Shipping.



KR Korean register of shipping

Qlight design and quality assurance system has been certified by the Korean register of shipping.



CE European Commission

Qlight has been certified by the European Commission.



UL Underwriters Laboratories

Qlight design and quality assurance system has been certified from UL to ensure the stability of consumption goods and to protect consumers.



KC Korea Safety Certification

Qlight products are certified by KC for preventing accident caused by fire.



CCC China Compulsory Certificate

Qlight products have acquired China Compulsory Certificate, a compulsory safety mark for products imported, sold or used in the Chinese market.



ICAO International Civil Aviation Organization

Qlight aviation obstruction light series are in compliance with ICAO/FAA standards.



E-mark Economic Commission of Europe (ECE)

Qlight warning lights for vehicles have acquired E-marking, a compulsory mark for vehicle safety system and component issued by EU committee, EC directive.



RoHS Restriction of Hazardous Substances Directive

Qlight complies with the Restriction of Hazardous Substances Directive by limiting its use of hazardous materials.



FOR YOUR
SAFETY

Specification and dimensions listed in this catalogue are subject to change without prior notice for product quality improvement. The newest product information is available on our web site. (www.qlight.com) Please read the Instruction Manual attached to the product carefully before installation and use.

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WARNING LIGHT | ELECTRONIC HORN | SIGNAL TOWER LIGHT | EMERGENCY LIGHT BAR | LED OBSTRUCTION LIGHT | LED WORK LIGHT