



## Multi-Layer Light Tower

Each light element can be mounted or replaced by user easily. No tool is necessary. Use of high-luminance LEDs (Light Emitting Diodes) to enhance the extra brightness for 05 series light tower. It can extend life-time of the operation so as to provide no requirement for maintenance.

## Multi-Layer Light Tower

Φ 30 mm	144-145
Φ 50 mm	146-147
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50/70mm White housing module	150-151
Accessories	152-153
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Linking your system

[www.ema-electronic.com](http://www.ema-electronic.com)

**Features**

- Size: Φ 30mm, Φ 50mm, Φ 70mm
- 5 stands selectable
- Long lifetime and brightness LEDs
- 360° view: excellent visibility with no block and no shadow
- Modular design for installation without tools
- Patent design for advancing brightness and easy installation
- The frequency of alarm: 60~80 times/min
- Buzzer volume: 85 ± 10 or 120 ± 10 dB/M
- Materials of construction: Layer-PC, lampshade-ABS , Stand-AL
- Materials in protection of corrosive
- Confirmative to CE
- Meets EEC RoHS Directive
- Protection rating: IP54, IP65



**The meaning of colors**

According to Machinery Directive IEC/EN 60204-1, the different colors of the light modular elements specify the meaning for the operating status. All selection of the colors are based on the demands of the user.



**Red**  
Dangerous status - immediate action



**Yellow**  
Abnormal status - in monitor or action



**Green**  
Normal status - no action



**Blue**  
Discontinuity status - action mandatory



**White**  
Other status - can be identified by the user

**Max. power**

LED Light Module	Color	Power	Current
0550 ultra bright	Red, Yellow	1.2W	Green, Blue, White
0550 standard	Red, Yellow	0.75W	Green, Blue, White
0570 ultra bright	Red, Yellow	1.7W	Green, Blue, White
0570 standrd	Red, Yellow	1W	Green, Blue, White
Buzzer	Color	Power	Current
0550 buzzer	Black, White	0.5W	
0570 buzzer	Black, White	0.75W	
0570 music buzzer	Black, White	12W	
0570 120dB buzzer	Black, White	DC=5W	DC<200mA AC<20mA

**LED makes your products more competitive**

Use of high-luminance LEDs (Light Emitting Diodes) to enhance the extra brightness for 05 series light tower. It can extend life-time of the operation so as to provide no requirement for maintenance.

**Benefits of LED:**

- Long life-time up to 50,000 hours
- Working in high-speed condition
- Anti-shock
- Durable and reliable
- Energy saving



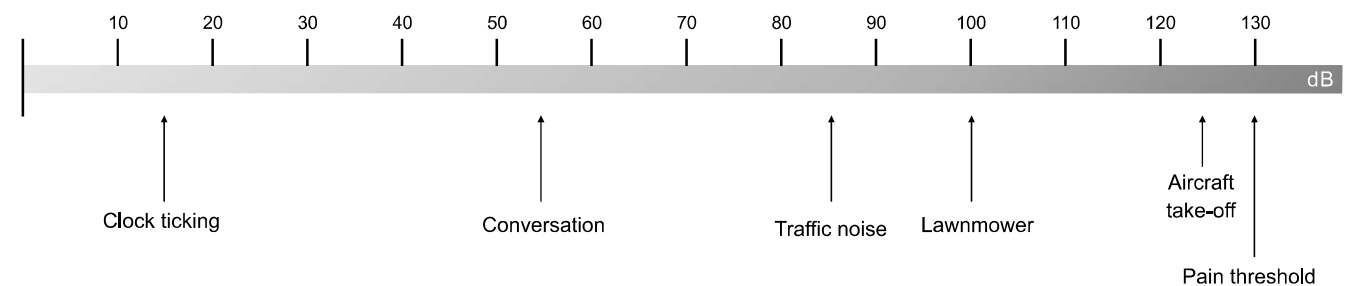
**Table of operating range**

dB is the unit of Volumn, higher dB means louder volumn, if dB increases 10 each time, then volumn will be ten times than that of before. That is, voulum power of 20dB is ten times than that of 10dB, volumn power of 30dB is ten times than that of 20dB. If 10dB sent out by 10 sound source at the same time, then the power will be ten times than that of 10dB, that is 20dB.

Distance(M)	Level of sound dB(A)																				
	120	118	116	114	112	110	108	106	104	102	100	98	96	94	92	90	85	80	75	70	65
1	120	118	116	114	112	110	108	106	104	102	100	98	96	94	92	90	85	80	75	70	65
2	114	112	110	108	106	104	102	100	98	96	94	92	90	88	86	84	79	74	69	64	59
3	110	108	106	104	102	100	98	96	94	92	90	88	86	84	82	80	75	70	65	60	55
5	106	104	102	100	98	96	94	92	90	88	86	84	82	80	78	76	71	66	61	56	51
10	100	98	96	94	92	90	88	86	84	82	80	78	76	74	72	70	65	60	55	50	45
20	94	92	90	88	86	84	82	80	78	76	74	72	70	68	66	64	59	54	49	44	39
30	90	88	86	84	82	80	78	76	74	72	70	68	66	64	62	60	55	50	45	40	35
50	86	84	82	80	78	76	74	72	70	68	66	64	62	60	58	56	51	46	41	36	
100	80	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	45	40			
200	74	75	70	68	66	64	62	60	58	56	54	52	50	48	46	44	39				
300	70	68	66	64	62	60	58	56	54	52	50	48	46	44	42	40					
500	66	64	62	60	58	56	54	52	50	48	46	44	42	40	38						
1000	60	58	56	54	52	50	48	46	44	42	40	38									

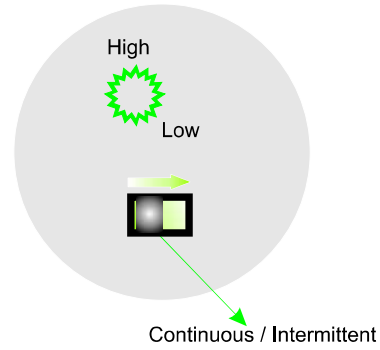
**Examples of noise**

Enviornental noise comes from four sources 1. Noise Sent out from traffice vehicles. include automobile,train and plane 2. Factory noise. for example,blower, turbine,loom and punching machine 3. Construction noise, like pile driving engine, excavating machineand concrete mixer4.Social life noise, for example, noise sent out from high voulmn horn, recorder.



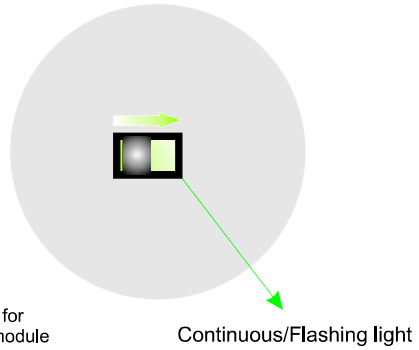
**Buzzer**

Switchable Continuous/intermittent buzzer and adjustable volume up to  $85 \pm 10$  or  $120 \pm 10$ dB/M at a distance of 1 meter which is more helpful for operators even in a noisy environment. The frequency of buzzer is 60~80 beeps per minute.



**Switchable continuous/flashing light**

Flashing light module can be switched by user manually to increase its agility and reduce your inventory.



Notice: Not available for 30mm flashing light module

**Innovative 70mm buzzer with high volume**

When using multi-layer light towers in the field with loud area or outdoors, customers express the demand of the buzzer with louder volume. ema develop an innovative  $\Phi 70$ mm buzzer up to 120dB/M with voltage in 12~24VDC. This new model enhances the volume of buzzer extremely. Moreover, it can be installed in any position and there is no limit to be installed on the top of tower. This new feature provides customers with more flexible, convenient options on installation. The volume and the mode of signaling of this buzzer can be adjusted by a switch inside.



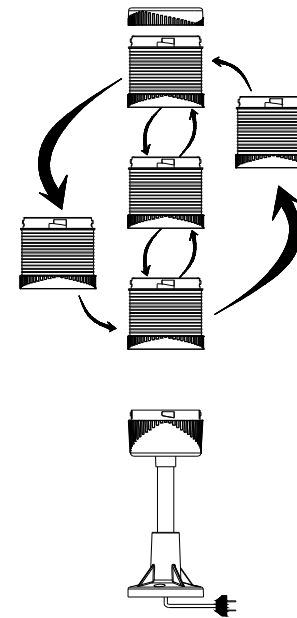
**Wide range of voltage**

05 Series with DC voltage offer reversal polarity protection to secure your connection. A wide range rated voltage of 12~24VDC or 85~275VAC can support you in promotion of your system to worldwide.



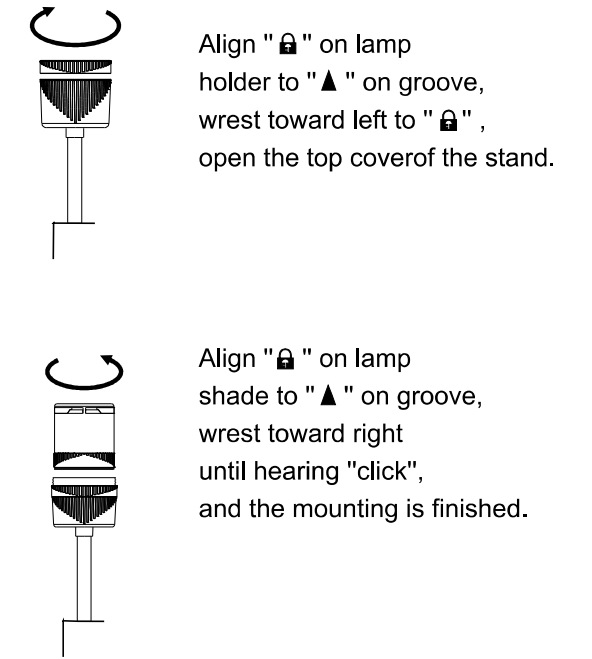
**Modular design**

Each light element can be mounted or replaced by user easily. No tool is necessary.



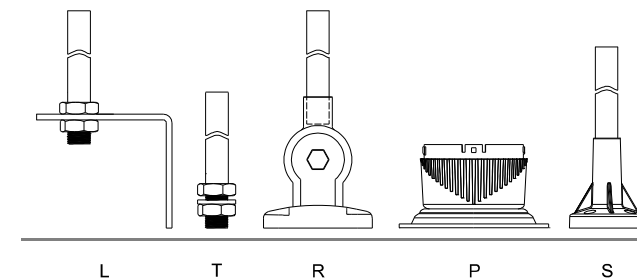
**Easy installation**

Thanks for modular design, the user can turn the light element slightly until it cannot move.



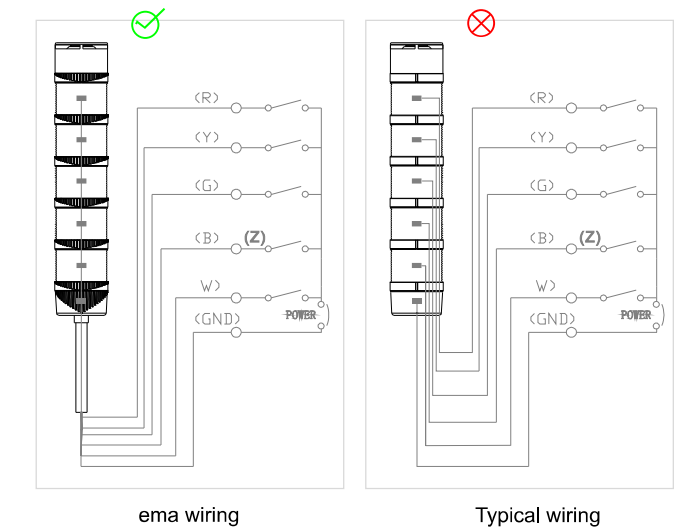
**Easy mounting**

Easy and quick selections of mounting with integrated stands. Custom length of stand is available.



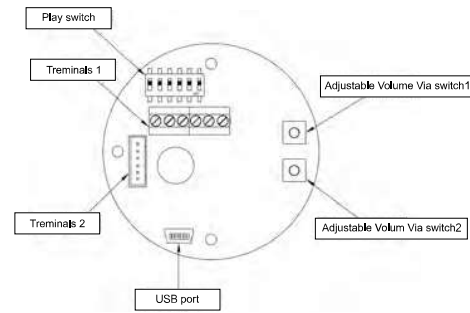
**Easy connection**

No need to wire the cable from the top light element to the end. It is convenient to open the cap of stand for wiring – Save material cost and installation time.



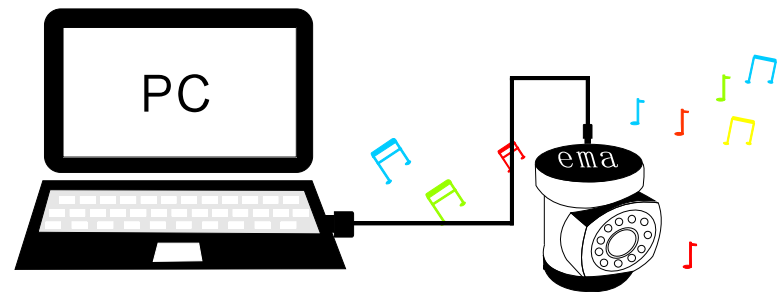
Φ 70mm Music Buzzer

NEW



You can input any voice into ema music buzzer as you wish! No matter it is human voice, pop music, tone, melody, natural sound or even symphony. What is more, no software is needed to DIY this audible device. Music buzzer could be used for much more conditions, for example, the warning in different conditions/areas/equipments. Furthermore, the user can choose any melody or voice as an alarm to play under any failure circumstance. Each light tower module has sound and muffler features. You can flexibly adjust the position and create various combinations of light module and alarm. No other buzzer makes DIY the songs this much fun.

Incredible audible device – the volume of 70mm ema Music Buzzer is up to  $85 \pm 10$  dB/M. A variety of music can make the alarm highly recognizable compared to the general tone which is commonly used in most industrial environments. In brief, ema Music Buzzer provides the user with a quick response for failure when there is personally music coming out in the air. What is more, it is easy and flexible to be assembled in any layer of light tower, either in the top or bottom or in the middle of light tower. The volume of the buzzer sound can be adjusted through the DIP switches. The product is flexible and features a wide range of 12 ~ 24VDC voltage, which perfectly saves your inventory. That is, no need to worry about different voltages if you have ema Music Buzzer. The function of the ema Music Buzzer is a great hit. The accessory 1.5-meter USB cable is available. (Order no.: UP0007)

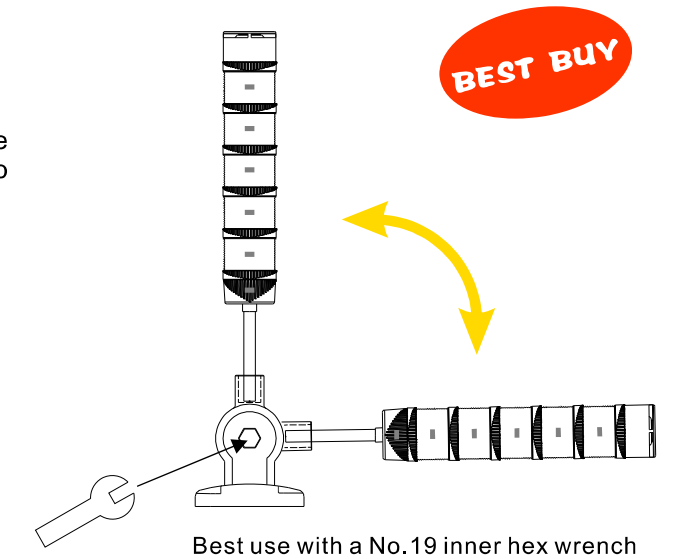


Application examples:

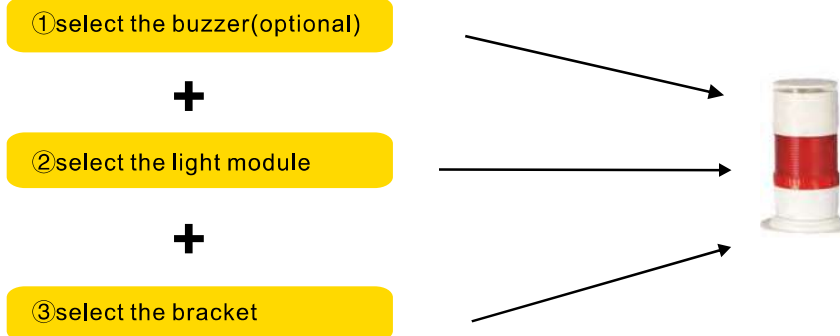
1. Different area in factory (such as area A and area B)
2. Different type/function equipments
3. Different malfunctions
4. Different language for different countries

Best Choice: R type bracket

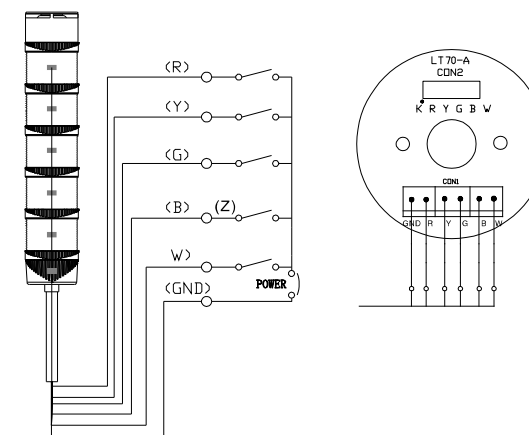
ema R type bracket is designed to provide the convenience for machine delivery and to avoid damage during shipping.



How to select the modular light tower



Wiring instruction



input voltage connect with GND(black wire) and W(white wire) buzzer2(Continuous)  
 input voltage connect with GND(black wire) and B(blue wire) buzzer2(Intermittent)  
 input voltage connect with GND(black wire) and G(green wire) Green module light on  
 input voltage connect with GND(black wire) and Y(yellow wire) Yellow module light on  
 input voltage connect with GND(black wire) and R(red wire) Red module light on

PLC can be connected with anode or cathode

Notice: When you use the PLC to control continuous light (DC 12~24V and AC 85~275V), it is ideal method to use RELAY to protect PLC.



- Indicator with long life lights, insert 8 ultra bright LED diode
- Modular design for installation without tools
- Patent design for advancing brightness and easy installation
- Good looking and well practical stand
- The frequency of alarm: 60~80 times per minute
- Main material:light module-PC,bracket-ABS, tube-Aluminum
- Materials in protection of corrosive
- Protection rating:IP54、IP65



For the convenience of your inventory control and the alternation of accessories, you can choose themodule. Also it is unnecessary for you to buy the whole set of the product while the circuit or only certain light element is out of work .Our module design makes your inventory and maintenance expense lowest.

Type of Stand

Bracket Shape	S Type	T Type	L Type	R Type
<p><b>Drawing</b></p> <p>H means the real length of tube h means customers selected tube length</p>				

LED Light Module Drawing No.: M4(Page 154)

05	30	Y	DW	L	H
Series	Size	Layer color	Power supply	Type of light	Protection
05	Φ30mm	■ R=Red	DW=12~24VDC	L=Continuous	H=IP65
		■ Y=Yellow		F=Flashing	Omission=IP54
		■ G=Green			
		■ B=Blue			
		■ W=White			

Notice:1. AW85~275VDC is available only for ultra-bright type  
2.30mm flashing type light module can not be set to lighting type, need be ordered separately

Stand Module

05	30	TB	S	01	K	H
Series	Size	Stand	Type of Stand	Length	Body color	Protection
05	Φ30mm	TB	S=S Type	01=10mm	W=White	H=IP65
			T=T Type	10=100mm	K=Black	Omission=IP54
			L=L Type	25=250mm		
			R=R Type			

Notice:30mm type bracket is connected with a 0.5m cable.

Light Tower Module Drawing No.: M1(Page 154)

05	30	RYG	DW	S10	W	L	H
Series	Size	Layer color	Power supply	Type of Stand	Body color	Type of light	Protection
05	Φ30mm	■ R=Red	DW=12~24VDC	S01、S10、S25	W=White	L=Continuous	H=IP65
		■ Y=Yellow		T01、T10、T25	K=Black	F=Flashing	Omission=IP54
		■ G=Green		L01、L10、L25			
		■ B=Blue		R01、R10、R25			
		■ W=White					

16mm Control Switches

22/25/30mm Control Switches

16/22mm Stainless Steel Switches

30/50/70mm Multi-Layer Light Tower



- Long life-time and brightness LED lamp embedded
- Modular design for installation without tools
- Patent design for advancing brightness and easy installation
- Good looking and well practical stand
- The frequency of alarm: 60~80 times per minute
- Buzzer volume: 85±10 dB/M
- Materials in protection of corrosive
- Protection rating: IP54, IP65



For the convenience of your inventory control and the alternation of accessories, you can choose the module. Also it is unnecessary for you to buy the whole set of the product while the circuit or only certain light element is out of work. Our module design makes your inventory and maintenance expense lowest.

Type of Stand

Bracket Shape	S Type	T Type	L Type	R Type	P Type
<p><b>Drawing</b></p> <p>H means the real length of tube h means customers selected tube length</p>					

LED Light Module Drawing No.:M5(Page 154)

05	50	Y	DW	L	E	H
Series	Size	Layer color	Power supply	Type of light	LED brightness	Protection
05	Φ50mm	■ R=Red	DW=12~24VDC	L=Continuous	Omission=extra	H=IP65
		■ Y=Yellow	AW=85~275VAC	F=Flashing	E=standard	Omission=IP54
		■ G=Green				
		■ B=Blue				
		■ W=White				

Notice:1. AW85~275VDC is available only for ultra-bright type  
2.LE or LEH is standard type with 6 LEDs embedded

Buzzer Module Drawing No.:M7(Page 154)

05	50	Z	DW	F	K	H
Series	Size	Buzzer	Power supply	Type of Tone	Body color	Protection
05	Φ50mm	□ Z	DW=12~24VDC	F=Continuous, Intermittent can be adjusted	W=White	H=Protection
			AW=85~275VAC		K=Black	Omission=IP54

Stand Module

05	50	TB	S	01	K	H
Series	Size	Stand	Type of Stand	Length	Body color	Protection
05	Φ50mm	TB	S=S Type	01=10mm	W=White	H=Protection
			T=T Type	10=100mm	K=Black	Omission=IP54
			L=L Type	25=250mm		
			R=R Type			
			P=P Type			

Light Tower Module Drawing No.:M2(Page 154)

05	50	RYG	DW	S10	W	L	H
Series	Size	Layer color	Power supply	Type of Stand	Body color	Type of light	Protection
05	Φ50mm	■ R=Red	DW=12~24VDC	S01,S10,S25	W=White	L=Continuous	H=Protection
		■ Y=Yellow	AW=85~275VAC	T01,T10,T25	K=Black	F=Flashing	Omission=IP54
		■ G=Green		L01,L10,L25			
		■ B=Blue		R01,R10,R25			
		■ W=White		P			
		□ Z=Buzzer					



- Long life-time and brightness LED lamp embedded
- Modular design for installation without tools
- Patent design for advancing brightness and easy installation
- Good looking and well practical stand
- The frequency of alarm: 60~80 times per minute
- Buzzer volume: 85±10 or 120±10 dB/M
- Materials in protection of corrosive
- Protection rating:IP54、IP65



For the convenience of your inventory control and the alternation of accessories, you can choose the module. Also it is unnecessary for you to buy the whole set of the product while the circuit or only certain light element is out of work. Our module design makes your inventory and maintenance expense lowest.

Type of Stand

Bracket Shape	S Type	T Type	L Type	R Type	P Type
Drawing H means the real length of tube h means customers selected tube length					

LED Light Module Drawing No.:M6(Page 154)

05	70	Y	DW	L	E	H
Series	Size	Layer color	Power supply	Type of light	LED brightness	Protection
05	φ70mm	■ R=Red	DW=12~24VDC	L=Continuous	Omission=extra	H=IP65
		■ Y=Yellow	AW=85~275VAC	F=Flashing	E=standard	Omission=IP54
		■ G=Green				
		■ B=Blue				
		■ W=White				

Notice:1. AW85~275VDC is available only for ultra-bright type  
2.LE or LEH is standard type with 12 LEDs embedded

Buzzer Module Drawing No.:M8(Page 154)

05	70	Z	DW	F	K	H
Series	Size	Buzzer	Power supply	Type of Tone	Body color	Protection
05	φ70mm	□ Z=85 ± 10dB	DW=12~24VDC	F=Continuous, Intermittent can be adjusted	W=White	H=IP65
			AW=85~275VAC		K=Black	Omission=IP54

Music Buzzer and 120dB Buzzer Drawing No.:M9(Page 154)

05	70	P	DW	A	K	H
Series	Size	Music Buzzer	Power supply	Soud Section	Body color	Protection
05	φ70mm	P=MP3	DW=12~24VDC	A=5 Section	K=Black	H=IP65
					W=White	Omission=IP54

Notice:music buzzer can be used with a 1.5m USB wire, order No.: UP0007

05	70	S	DW	F	K	H
Series	Size	120dB Buzzer	Power supply	Type of Tone	Body color	Protection
05	φ70mm	S=120 ± 10dB	DW=12~24VDC	F=Volume, frequency	K=Black	H=IP65
			AW=85~275VAC		W=White	Omission=IP54

Stand Module

05	70	TB	S	01	K	H
Series	Size	Stand	Type of Stand	Length	Body color	Protection
05	φ70mm	TB	S=S Type	01=10mm	W=White	H=IP65
			T=T Type	10=100mm	K=Black	Omission=IP54
			L=L Type	25=250mm		
			R=R Type			
			P=P Type			

Light Tower Module Drawing No.:M3(Page 154)

05	70	RYG	DW	S10	W	L	H
Series	Size	Layer color	Power supply	Type of Stand	Body color	Type of light	Protection
05	φ70 mm	■ R=Red	DW=12~24VDC	S01,S10,S25	W=White	L=Continuous	H=IP65
		■ Y=Yellow	AW=85~275VAC	T01,T10,T25	K=Black	F=Flashing	Omission=IP54
		■ G=Green		L01,L10,L25			
		■ B=Blue		R01,R10,R25			
		■ W=White		P			
		□ Z=Buzzer					

16mm Control Switches  
22/25/30mm Control Switches  
16/22mm Stainless Steel Switches  
30/50/70mm Multi-Layer Light Tower



- White high transparency shell
- Long life-time and brightness LED lamp embedded
- Modular design for installation without tools
- Patent design for advancing brightness and easy installation
- Good looking and well practical stand
- The frequency of alarm: 60~80 times per minute
- Main material:light module-PC,bracket-ABS, tube-Aluminum
- Materials in protection of corrosive
- Protection rating:IP54、IP65



For the convenience of your inventory control and the alternation of accessories, you can choose the module. Also it is unnecessary for you to buy the whole set of the product while the circuit or only certain light element is out of work .Our module design makes your inventory and maintenance expense lowest.

Type of Stand

Bracket Shape	S Type	T Type	L Type	R Type	P Type
<p><b>Drawing</b></p> <p>H means the real length of tube h means customers selected tube length</p>					

50mm LED Light Module Drawing No.:M5(Page 154)

05	50	W	R	DW	L	H
Series	Size	Body color	LED color	Power supply	Type of light	Protection
05	Φ50mm	W=White	R=Red	DW=12~24VDC	L=Continuous	H=IP65
			Y=Yellow	AW=85~275VAC	F=Flashing	Omission=IP54
			G=Green			
			B=Blue			
			Omission=White			

Notice:1.AW85~275VDC is available only for ultra-bright type

70mm LED Light Module Drawing No.:M6(Page 154)

05	70	W	R	DW	L	H
Series	Size	Body color	LED color	Power supply	Type of light	Protection
05	Φ70 mm	W=White	R=Red	DW=12~24VDC	L=Continuous	H=IP65
			Y=Yellow	AW=85~275VAC	F=Flashing	Omission=IP54
			G=Green			
			B=Blue			
			Omission=White			

Light Tower Module

05	70	W	RYG	DW	S10	K	L	H
Series	Size	Layer color	LED color	Power supply	Type of Stand	Body color	Type of light	Protection
05	Φ50mm	W=White	R=Red	DW=12~24VDC	S01、S10、S25	W=White	L=Continuous	H=IP65
	Φ70 mm		Y=Yellow	AW=85~275VAC	T01、T10、T25	K=Black	F=Flashing	Omission=IP54
			G=Green		L01、L10、L25			
			B=Blue		R01、R10、R25			
			Omission=White		P			


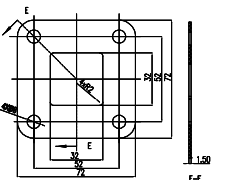

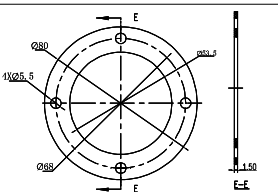

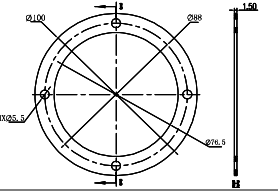

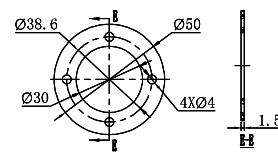

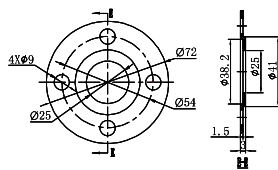

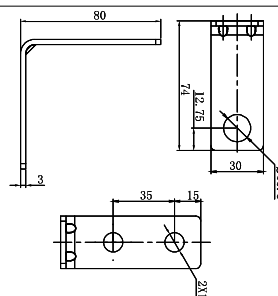

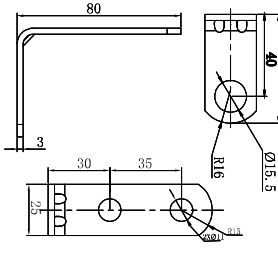
16mm Control Switches


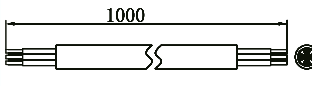

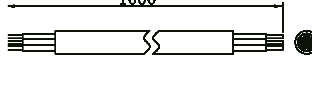

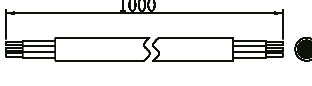

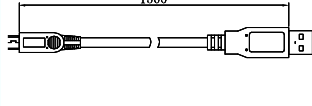
22/25/30mm Control Switches

16/22mm Stainless Steel Switches

30/50/70mm Multi-Layer Light Tower



Order No.	Gasket	Description	Drawing
05R01		Waterproof gasket for R type bracket, 1.5mm thickness, silicon rubber, suitable for 0530/0550/0570	
05P01		Waterproof gasket for P type bracket, 1.5mm thickness, silicon rubber, suitable for 0550	
05P02		Waterproof gasket for P type bracket, 1.5mm thickness, silicon rubber, suitable for 0570	
05S01		Waterproof gasket for S type bracket, 1.5mm thickness, silicon rubber, suitable for 0530/0550	
05S02		Waterproof gasket for S type bracket, 1.5mm thickness, silicon rubber, suitable for 0570	
Order No.	L type bracket	Description	Drawing
05TBL		L type bracket, L:80mm, W:74mm, H:30mm, T:3mm, suitable for 0530/0550/0570	
05TBL1		L type bracket, L:80mm, W:53mm, H:25mm, T:3mm, suitable for 0530/0550/0570 Standard type with L shape bracket	

Order No.	Wire	Description	Drawing
C01N4C		1M, 4 core PVC wire	
C01N5C		1M, 5 core PVC wire	
C01N6C		1M, 6 core PVC wire	
UP0007		1.5M USB cable for music buzzer	

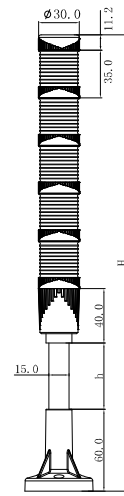
16mm Control Switches

22/25/30mm Control Switches

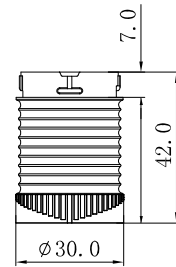
16/22mm Stainless Steel Switches

30/50/70mm Multi-Layer Light Tower

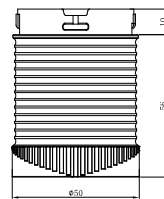
Drawing



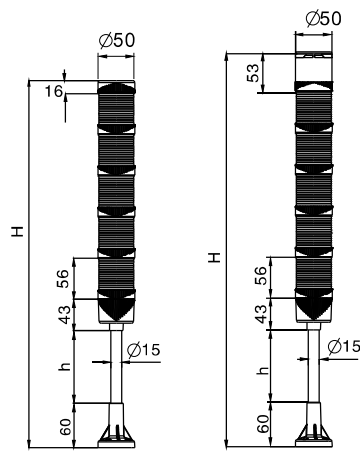
M1



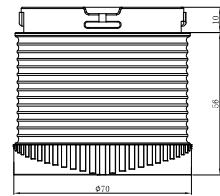
M4



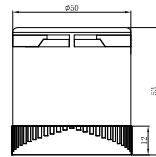
M5



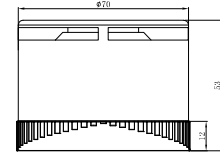
M2



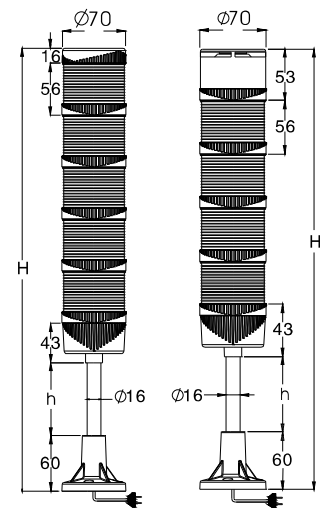
M6



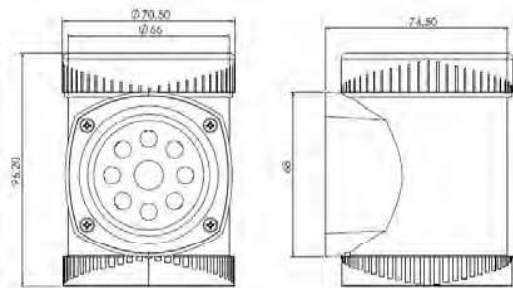
M7



M8

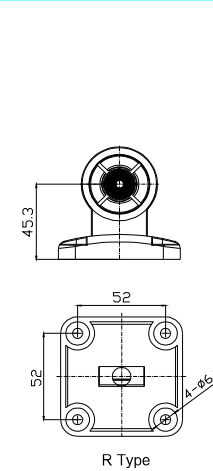


M3

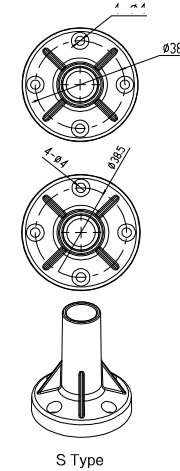


M9

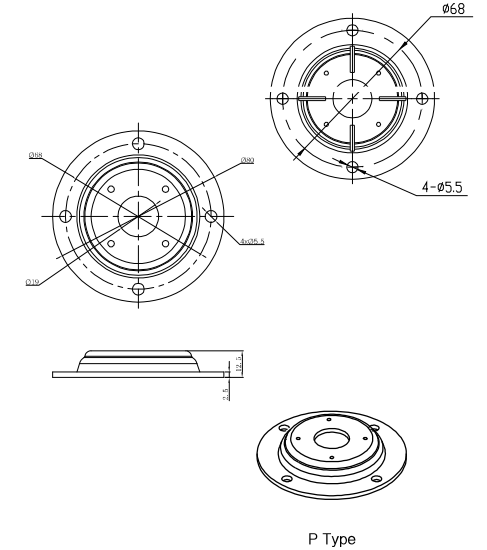
Φ 30mm/50mm Base



R Type

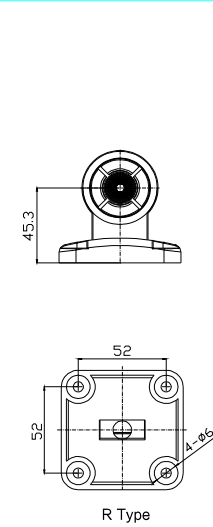


S Type

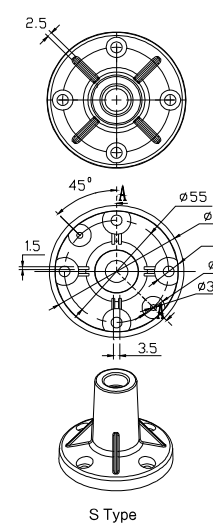


P Type

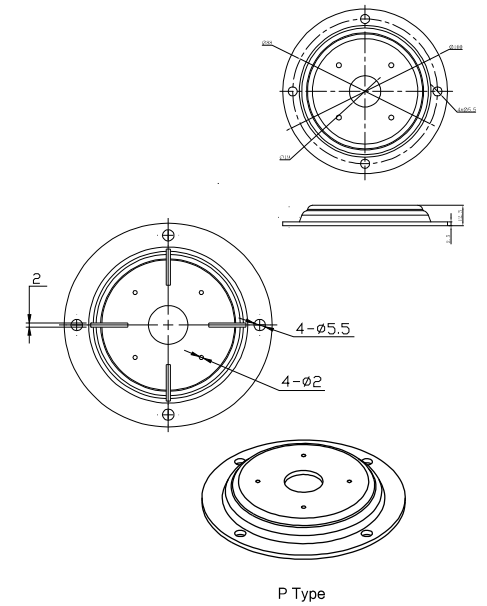
Φ 70mm Base



R Type



S Type



P Type