

# 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	118 – 119
Φ 50 mm	120 – 121
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50/70mm White housing module	124 – 125
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Linking your system  
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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-AI
- 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	0550 ultra bright	Red, Yellow	1.2W	Green, Blue, White	1.7W
	0550 standard	Red, Yellow	0.75W	Green, Blue, White	1W
	0570 ultra bright	Red, Yellow	1.7W	Green, Blue, White	2.3W
	0570 standrd	Red, Yellow	1W	Green, Blue, White	1.2W
Buzzer	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



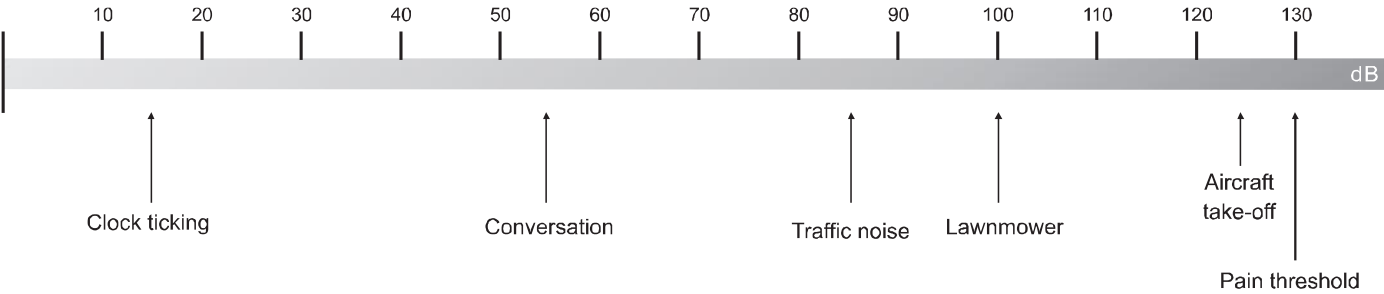
Table of operating range

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, volumn 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)																			
	1	2	3	5	10	20	30	50	100	200	300	500	1000	1	2	3	5	10	20	30
1	120	118	116	114	112	110	108	106	104	102	100	98	96	94	92	90	85	80	75	70
2	114	112	110	108	106	104	102	100	98	96	94	92	90	88	86	84	79	74	69	64
3	110	108	106	104	102	100	98	96	94	92	90	88	86	84	82	80	75	70	65	60
5	106	104	102	100	98	96	94	92	90	88	86	84	82	80	78	76	71	66	61	56
10	100	98	96	94	92	90	88	86	84	82	80	78	76	74	72	70	65	60	55	50
20	94	92	90	88	86	84	82	80	78	76	74	72	70	68	66	64	59	54	49	44
30	90	88	86	84	82	80	78	76	74	72	70	68	66	64	62	60	55	50	45	40
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	72	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

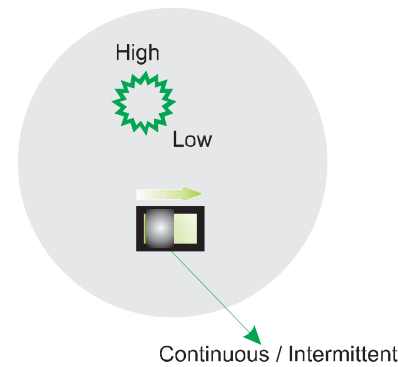
Enviornmental noise comes from four sources 1. Noise Sent out from traffice vehicles. include automobile,train and plane 2. Factory noise. for example,blower, turbine,loom and punching machine 3. Construction noise, like pile driving engine, excavating machineand concrete mixer4.Social life noise, for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





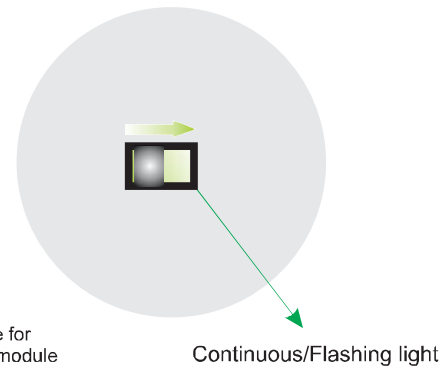
### Buzzer

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.



### 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.



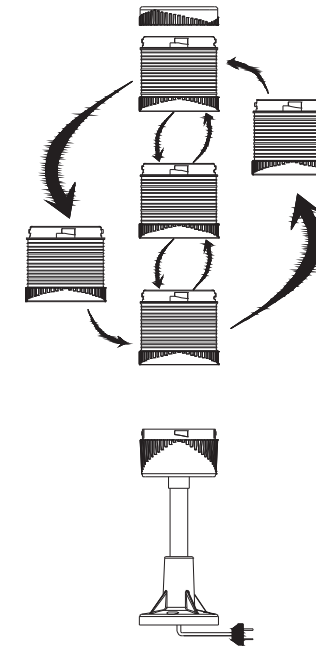
### Wide range of voltage

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.



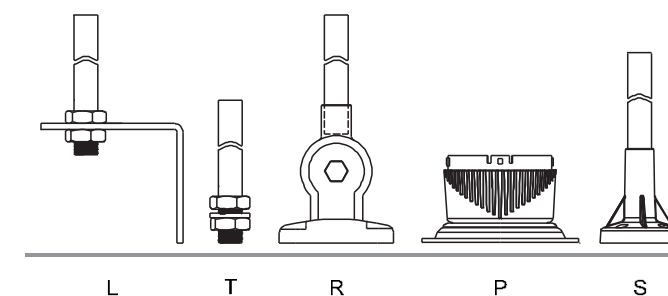
Align "🔒" on lamp holder to "▲" on groove, wrest toward left to "🔒", open the top cover of the stand.



Align "🔒" on lamp shade to "▲" on groove, wrest toward right until hearing "click", and the mounting is finished.

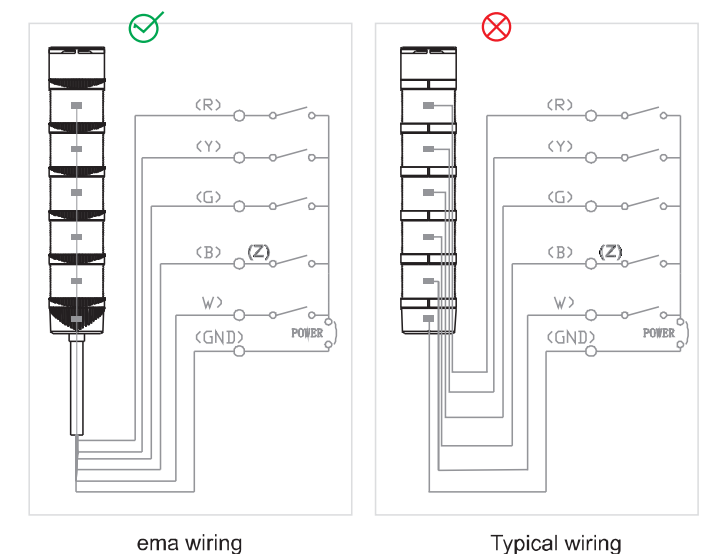
### Easy mounting

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



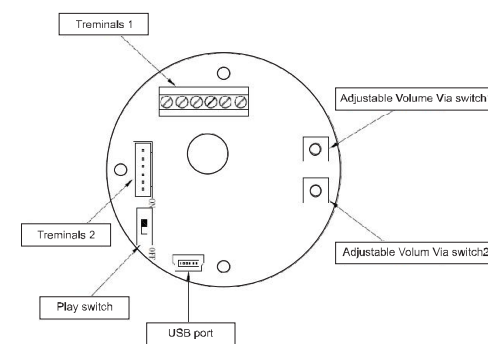
### Easy connection

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.



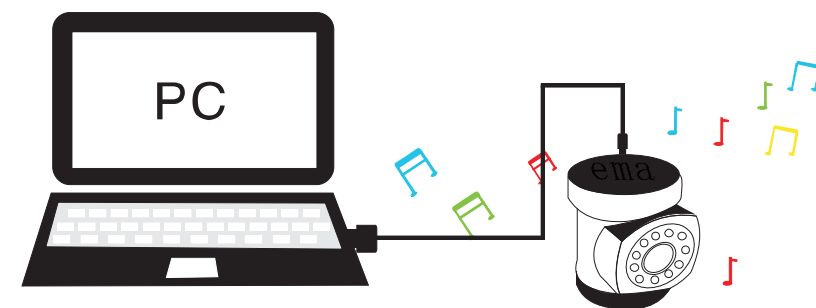
## Φ 70mm Music Buzzer

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 condition for example the warning in different condition/area/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  $85 \pm 10 \text{ dB/M}$ . A variety of music can make the alarm highly recognizable compared to the general tone which commonly use in most industrial environment. In brief, ema Music Buzzer provide the user the quick response for the failure when there is a 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 feature with wide range of 12 ~ 24VDC voltage which is perfectly save your inventory. That is no need to worry about different voltage if you have ema Music Buzzer. The function about the ema Music buzzer is a great hit. The accessory 1.5 meter USB cable is available. (Order no.: UP0007)

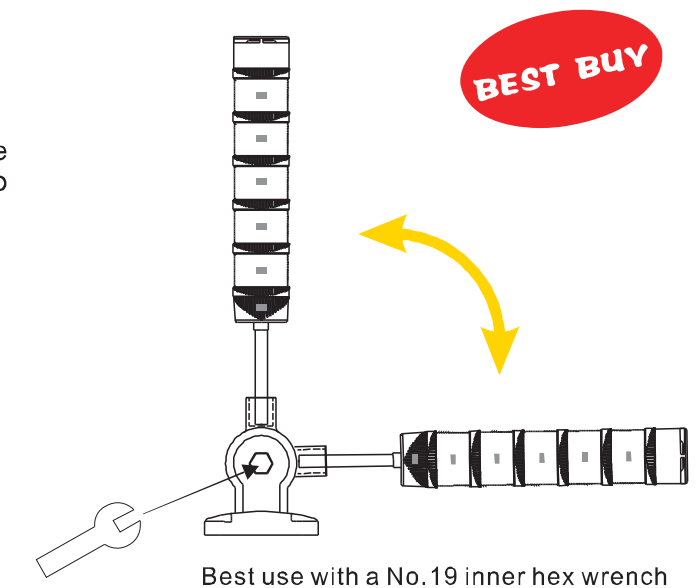


Application examples:

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 the damage during the shipping.



## How to select the modular light tower

① select the buzzer(optional)

+

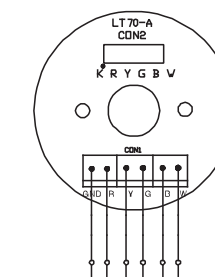
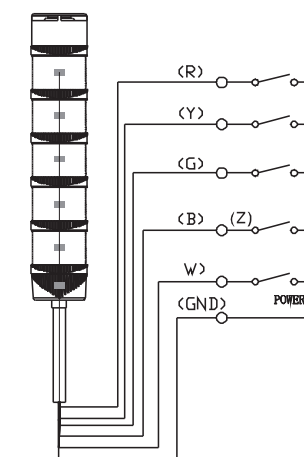
② select the light module

+

③ select the bracket



## 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
Drawing H means the real length of tube h means customers selected tube length				

LED Light Module Drawing No.: M4(Page 127)

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 127)

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

30/50/70mm  
Multi-Layer  
Light Tower



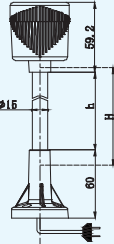
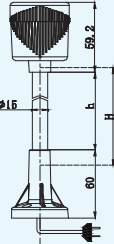
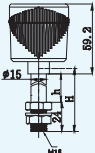
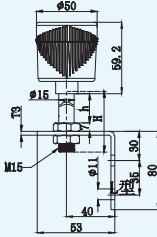
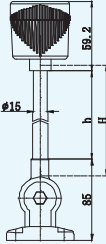
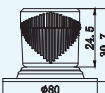


- Long life-time and brightness LED lamp embedded
- Modular design for installation without tools
- Patent design for advancing brightness and easy installation
- Good looking and well practical stand
- The frequency of alarm: 60~80 times per minute
- Buzzer volume: 85±10 dB/M
- Materials in protection 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 127)

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.Incandescent BA9S only light type is available,voltage is 24VDC,110VAC,220VAC







**Buzzer Module** Drawing No.:M7(Page 127)

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 127)

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








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## 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.:M6(Page 127)

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. Incandescent BA9S only light type is available, voltage is 24VDC, 110VAC, 220VAC

## Buzzer Module

Drawing No.:M8(Page 127)

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 127)

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	Φ 70mm	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 127)

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					



- 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



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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					

50mm LED Light Module Drawing No.:M5(Page 127)

05	50	W	R	DW	L	H
Series	Size	Body color	LED color	Power supply	Type of light	Protection
05	Φ50mm	W=白	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 127)

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


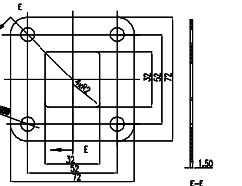

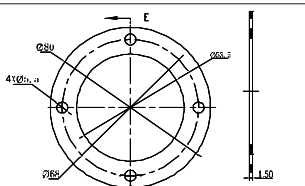

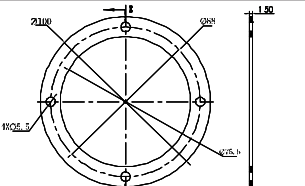

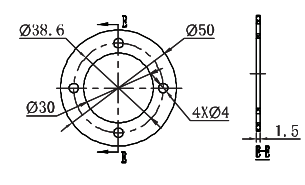

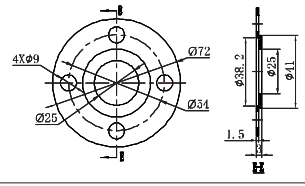

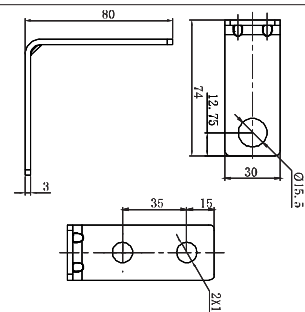

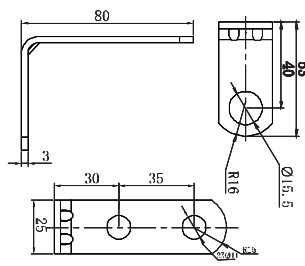
05	70	W	RYG	DW	S10	K	L	H
Series	Size	Layer color	LED color	Power supply	Type of Stand	支架颜色	Type of light	Protection
05	Φ50mm	W=White	R=Red	DW=12~24VDC	S01、S10、S25	W=White	L=Continuous	H=IP65
	Φ70 mm		Y=Yellow	AW=85~275VAC	T01、T10、T25	K=Black	F=Flashing	Omission=IP54
			G=Green		L01、L10、L25			
			B=Blue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

16mm  
Control Switches

22/25/30mm  
Control Switches


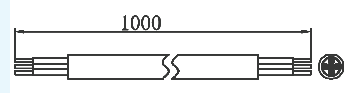

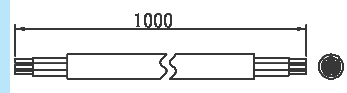

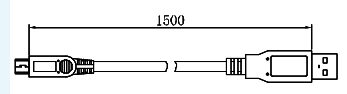
30/50/70mm  
Multi-Layer  
Light Tower



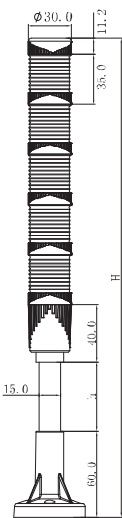
ema Human Machine Interface		30/50/70mm Light Tower	Accessories
Order No.	Gasket	Description	Drawing
05R01		Waterproof gasket for R type bracket,1.5mm thickness, silicon rubber,suitable for 0530/0550/0570	
05P01		Waterproof gasket for P type bracket,1.5mm thickness, silicon rubber,suitable for 0530	
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 for L shape bracket	

ema<sup>®</sup>

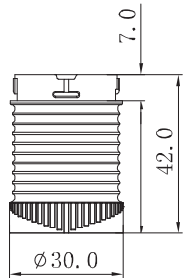
www.ema-electronic.com

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

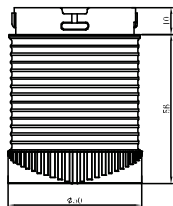
Drawing



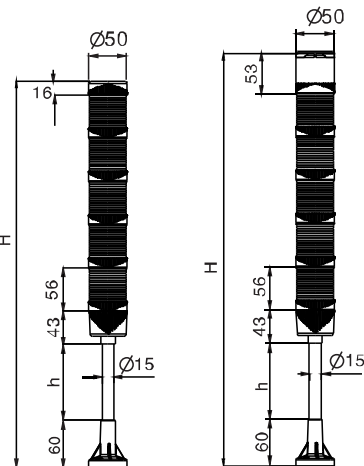
M1



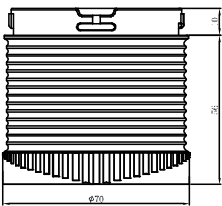
M4



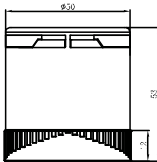
M5



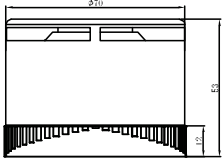
M2



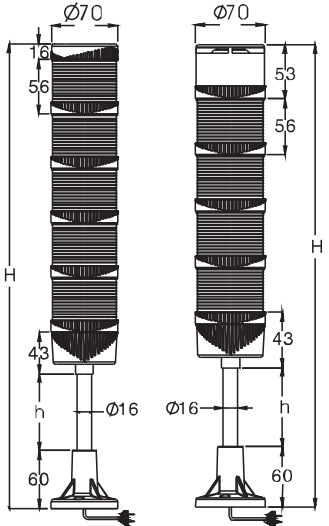
M6



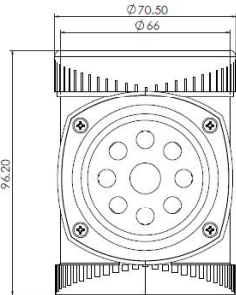
M7



M8

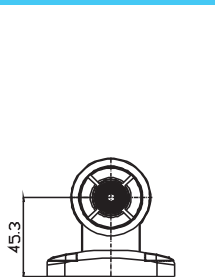


M3

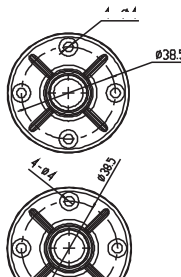


M9

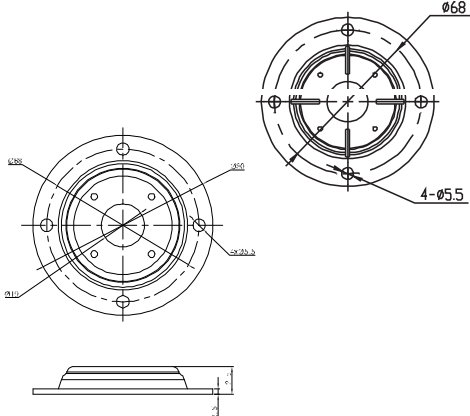
Φ 30mm/50mm Base



R Type

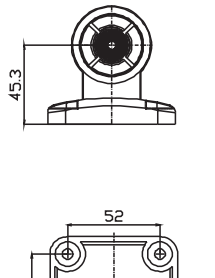


S Type

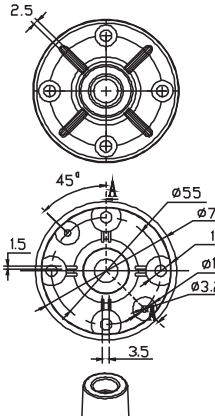


P Type

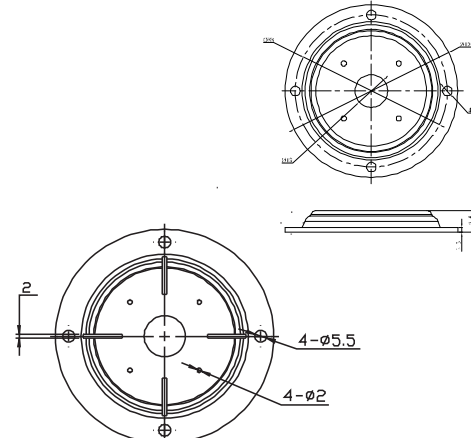
Φ 70mm Base



R Type



S Type



P Type