

# MS86L Series D86mm LED Steady / Flashing Signal Lights



MS86L series LED Dome Indicator Light The dome shape provides increased visibility and the LEDs provide years of maintenance-free operation.



## ◀ Dome head type

- Ultra bright LED
- Wide light distribution with prism-cut dome-shaped lens
- Outstanding visibility at distance
- Selectable Steady or Flashing Modes for LED lights
- Red, Yellow, Green, Blue and lens available
- IP65 rated

## ▼ Low head type



## Ordering Information

MS86L - F 02 - R - F  
 ① ② ③ ④

### 1. Light Style

<b>F</b>	LED Steady + Flashing
<b>B</b>	LED Steady + Flashing + Buzzer

### 2. Power Supply

<b>02</b>	24V AC/DC
<b>FF</b>	90~240V AC

### 3. Lens Colors

<b>R</b>	Red
<b>Y</b>	Yellow
<b>G</b>	Green
<b>B</b>	Blue
<b>C</b>	Clear

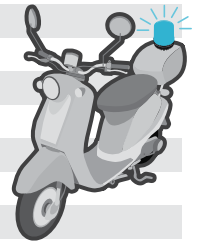


### 4. Lens cap Style

	Dome type lens cap
<b>F</b>	Low head type lens cap

## Specifications

Operation/Function	Steady , Flashing , Buzzer
Power Supply	AC/DC 24V , AC 90 ~ 240V (50/60 Hz)
Buzzer Sound Level	Approx. 80±5 dB (at 1M)
Lens Color	Red, Yellow, Green, Blue & Clear
Lens Diameter	86 mm
Flash Rate	80 times/ minute
Vibration	0.75mm at 10~55Hz
Ambient Temperature	-20°C~40°C
Storage Temperature	-40°C ~ 70°C
Ambient Humidity	45~85% RH
Degree of Protection	IP65
Approvals	UL, RoHS
Recommended Wire Size	PUR Ø5 / PVC Ø1.25 2P 0.3SQ, 300mm
Weight	Approx.150g

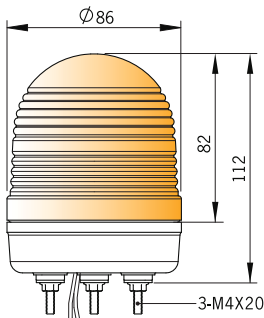


## Current consumption (Maximum current consumption when LED is lit.)

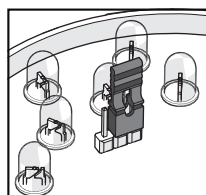
Power Spec	24V	90-240V AC	Buzzer
Red LED	330mA	30~60mA	30mA
Yellow LED			
Green LED	460mA		
Blue LED			
White LED			

\* Outside dimension and performance of the product are subject to change without notice to improve the product.

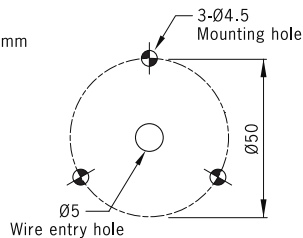
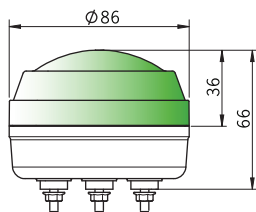
## Dimensions (unit: mm)



## Lights or Flashing Conversion dip Switch

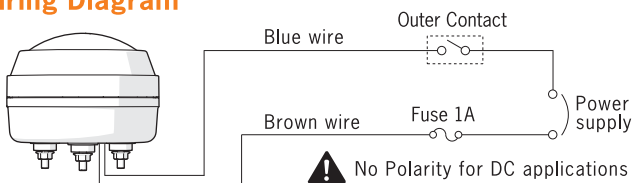


Power supply wire From wire exit 300mm



## ▲ Stud Mount hole layout

## Wiring Diagram



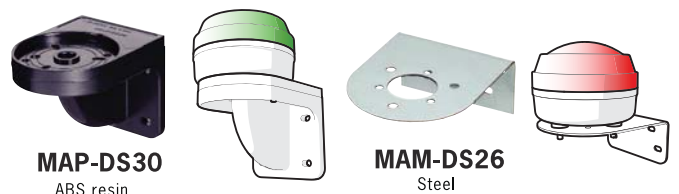
## Optional Orders

### 1. Mounting Pole



SAM-A31 SAM-T31 SAM-D31 SAM-M31

### 2. Wall Mount Brackets



MAP-DS30  
ABS resin

MAM-DS26  
Steel

See Page 40 ~ 42  
for Mounting Options and Accessories.

# MS86W Series

## Low-head Multi-function indicator Light D86mm LED Steady/Flashing/Rotating Lights



The MS86W series is an LED beacon featuring three selectable light patterns of Flashing or rotation for diversified uses. The clear lens makes it easier to see the light, even in bright ambient conditions.



### Product Features

- Flashing, Rotation, Continuous
- Enhanced Illumination: Use of long-life, super bright LED.
- Energy Efficient: Low power consumption.
- Main Body: heat resistant ABS resin.
- Cap Lens: impact and heat resistant polycarbonate resin.
- Installation: Indoor
- Available Colors: Red, Yellow, Green, Blue, Clear

### Ordering Information

**MS86W - R 0 0 - R**

① ② ③

#### 1. Light Style

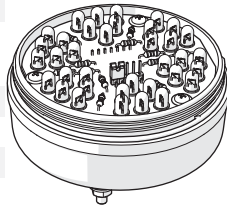
<b>R</b>	LED Steady + Flashing + Rotating
<b>B</b>	LED Steady + Flashing + Rotating + Buzzer <Buzzer function - DC 24V Only>

#### 2. Power Supply

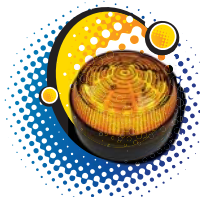
<b>00</b>	12~24V DC
<b>02</b>	24V DC

#### 3. Lens Colors

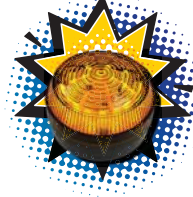
<b>R</b>	Red	<b>B</b>	Blue
<b>Y</b>	Yellow	<b>C</b>	Clear
<b>G</b>	Green		



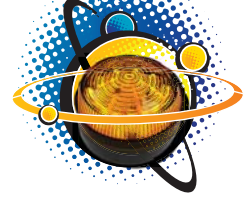
Max 80dB at 1m  
(24V DC Only)



■ Steady light



■ Flashing light



■ Rotating light

### Functional Specifications

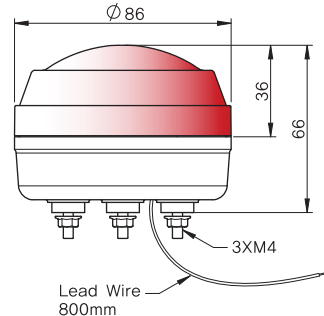
LED Color Code		R (red), Y (yellow), G (green), B (blue), C (Clear)		
Current	Illumination Color	Red / Yellow	Green / Blue / Clear	Buzzer
	12V	280mA	260mA	30mA
24V	400mA			
Flashing Cycle		Approx. 80 ±10 flashes per minute		
Continuous Flashing		Approx. 320 ±10 flashes per minute		
Rotating Cycle		Approx. 130 ±20 rpm (Clockwise rotation)		
Buzzer sound level		80dB ±5dB (at 1M)		

Note: Life of the LED varies according to operating conditions and environment.

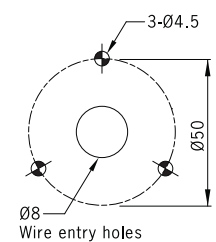
### General Specifications

Size	86mm diameter
Input Voltage Options	12~24V DC , 24V DC
Functions Available	Continuous , Flashing, Rotating , Buzzer
Operating Humidity	45 to 85% RH (no condensation)
Ambient Temperature	-15°C ~ 40°C (no freezing)
Storage Temperature	-40°C ~ 70°C (no freezing)
Insulation Resistance	100MΩ minimum (500V DC megger)
Vibration Resistance	Operating extremes: 10 to 55Hz, amplitude 0.75mm
Body Color	Black
Material	- Body: ABS resin - Cap lens: PC resin - Fixing bolt: Steel
Mounting Options	- Body direct mount - L-shaped bracket - Installation: Indoor & Outdoor Use
Available Colors	Red / Yellow / Green / Blue / Clear
Protection	RoHS
Degree of Protection	IP65
Function control	Lead wire
Wire specifications	22AWG (UL1007)
Weight	170g

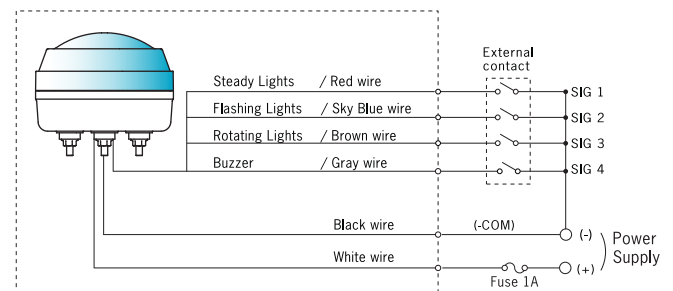
### Dimensions (Unit:mm)



### ► Hole Mounting



### Wiring Diagram



### Optional Parts See page 40~42 for dimension

#### 1. Mounting Pole



SAM-A31

SAM-T31

SAM-D31

SAM-M31

#### 2. Wall Mount Bracket



MAP-DS30  
Plastic



MAM-DS26  
Steel



# MS86T Series Multi-functional D86mm LED Steady/Flashing/Rotating Signal Lights



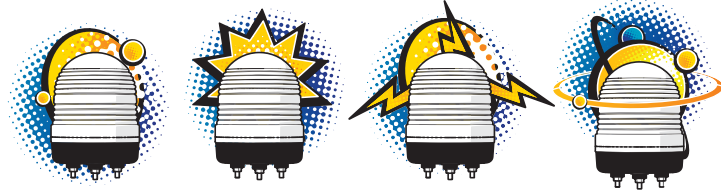
LED Strobe Light of High Brightness, Excellent Visibility from a Distance. Improving Visibility by Employing Special Scattering Lens.

Extremely high light output using unique LED technology



Min10 ~Max 100dB at 1m (Adjustable volume)

- Extremely high light output using unique LED technology
- Wide light distribution with prism-cut dome-shaped lens
- Outstanding visibility at distance
- Flashing Cycles: 2 patterns (Selectable by a switch)
- Adjustable flashing or rotating cycles
- Built-in buzzer (adjustable volume)
- Red, Yellow, Green, Blue and Clear lens available



■ Steady light ■ Flashing light-1 ■ Flashing light-2 ■ Rotating light

## Ordering Information

MS86T - F 0 0 - R  
 ① ② ③

### 1. Light Style

F	LED Lights + Flashing
R	LED Lights + Flashing + Rotating
B	LED Lights + Flashing + Rotating + Buzzer

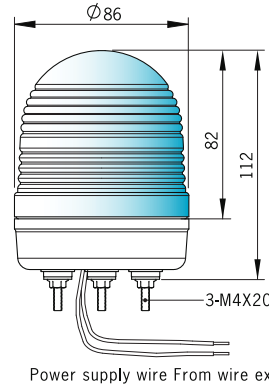
### 2. Power Supply

00	12~24V DC	FF	90~240V AC
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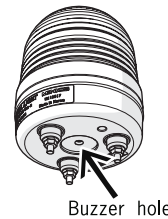
### 3. Lens Colors

R	Red	G	Green	C	Clear
Y	Yellow	B	Blue		

## Dimensions (unit: mm)

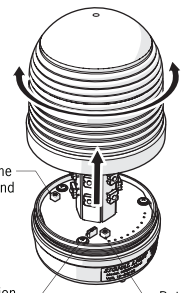
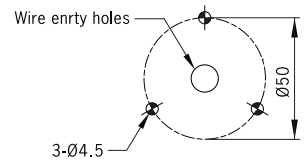


Power supply wire From wire exit 800mm



Buzzer hole

## Base Hole Mounting



Adjusting the buzzer sound volume  
 Function selection switch to flashing  
 Rotational speed control volume

## Specifications

Operation/Function	Steady , Flashing , Rotating , Buzzer				
Power Supply	AC/DC 12~24V , AC 90~240V (50/60Hz)				
Lens Diameter	86mm				
Lens Materials	PC resin	Body Materials: ABS resin			
Buzzer Sound Level	10 ~ 100 ±5 dB ( at 1m ) volume adjustable				
Flashing Rate ( Internal PCB board is dip switch controls )	F1: 80 ±5 flashes per minute F3: Continuous 4 flashes - 80 ±5 flashes per minute ( Emergency Signal lights )				
Rotating Rate	Min 60 ~ Max 300 rpm (Clockwise rotation)				
Feature set	Lead wire Connection				
Insulation Resistance	100 MΩ minimum (500V DC megger)				
Ambient Temperature	-20°C~40°C (no freezing)				
Storage Temperature	-40°C ~ 70°C (no freezing)				
Ambient Humidity	45~85% RH (no condensation)				
Degree of Protection	IP65	Vibration			
Approvals	RoHS	0.75mm at 10~55Hz			
Recommended Wire Size	1007 UL / 22AWG				
Weight	Approx. 170g				

Note: Life of the LED varies according to operating conditions and environment.

## Current Draw (Steady standards and current value)

Power Supply	Red / Yellow	Green	Blue	Clear	Buzzer
12V	170mA	120mA	200mA	120mA	150mA
24V	200mA	170mA			
90~240V	30~50 mA				

## Wiring diagram

Note: See page 32 for MS115T wiring diagram

## Optional Parts

### 1. Mounting Pole



SAM-A31 SAM-T31 SAM-D31 SAM-M31

### 2. Wall Mount Bracket



MAP-DS30 Plastic

MAM-DS26 Steel

Note: See page 40~42 for dimension

# MS86M Series LED Multi Color D86mm LED 3 Colors in 1 Signal Strob Lights



With high-brightness LED as its light source, the flashing light has a high effect of radiating signal light to ensure an accurate signal transmission even under worse conditions such as permanent fog and dust.



Min10 -Max 100dB at 1m (Adjustable volume)

- 3 colors in 1 LED modular components
- High Brightness LED light distribution through prism-cut lenses
- DC multi-voltage version (DC 12~24V)
- Shockproof and vibration resistant
- The streamlined warning light is suitable for patrol cycles, emergency, vehicles and ambulance cars.
- Extremely high light intensity

Extremely high light output using unique LED technology



## Ordering Information

MS86M - F 00 - RYG

① ② ③

### 1. Light Style

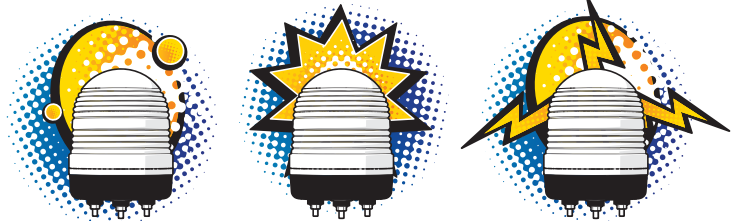
F	LED Steady + Flashing
B	LED Steady + Flashing + Buzzer

### 2. Power Supply

00	12~24V DC
FF	90~240V AC

### 3. LED Colors

RYG	Red, Yellow, Green
RGB	Red, Green, Blue



■ Steady light ■ Flashing light-1 ■ Flashing light-2

## General Specifications

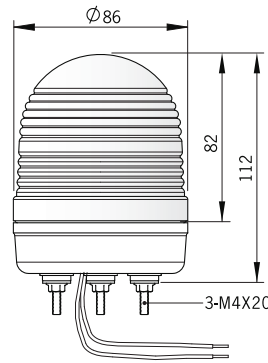
Operation/Function	LED Steady , Flashing , Buzzer	
Power Supply	AC/DC 12~24V , AC 90~240V	
Buzzer Sound Level	10 ~ 100 ±5 dB ( at 1M ) volume adjustable	
Lens Diameter	86 mm	Lens Color: Clear
Body Materials	ABS	Cap Materials: PC
Flashing Rate ( Internal PCB board is dip switch controls )	F1: 80 ±5 flashes per minute F3: Continuous 4 flashes - 80 ±5 flashes per minute ( Emergency Signal lights )	
Feature set	Lead wire Connection	
Insulation Resistance	100 MΩ minimum (500V DC megger)	
Vibration	0.75mm at 10~55Hz	
Ambient Temperature	-20°C~40°C	
Storage Temperature	-40°C ~ 70°C	
Ambient Humidity	45~85% RH	
Degree of Protection	IP65	
Approvals	RoHS	
Recommended Wire Size	1007 UL / 22AWG	
Weight	Approx. 150g	

## Current Draw (Steady standards and current value)

Volt.	LED	Red , Yellow , Green , Blue LED	Buzzer
12V		Max. 600 mA	
24V		Max. 600 mA	150mA
90~240V		30~80 mA	

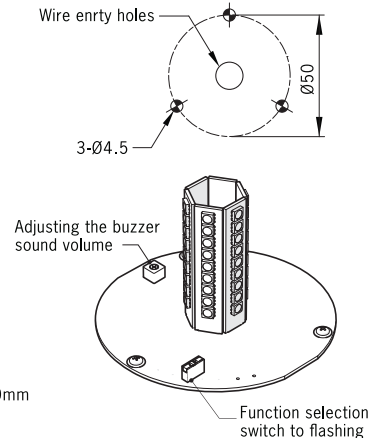
See Page 40 ~ 42 for Mounting Options and Accessories.

## Dimensions (unit: mm)



Power supply wire From wire exit 800mm

## Base Hole Mounting



## Wiring diagram

Note: See page 33 for MS115M wiring diagram

## Optional Parts

### 1. Mounting Pole

### 2. Wall Mount Bracket



LED SIGNAL LIGHT



# MS86S Series D86mm Xenon lamp Strobe Lights



Strobe Light of High Brightness, Excellent Visibility from a Distance  
Improving Visibility by Employing Special Scattering Lens



- Xenon lights
- Wide light distribution with prism-cut dome-shaped lens
- Outstanding visibility at distance
- PCB module style Xenon lamp
- Fast and easy replacement of lamp
- Red, Yellow, Green, Blue and lens available
- IP65 rated

## Ordering Information

**MS86S - S 0 0 - R**

①      ②      ③

### 1. Light Style

<b>S</b>	Xenon Strobe Lamp (molding type)
<b>N</b>	Xenon Strobe Lamp (non molding type)

### 2. Power Supply

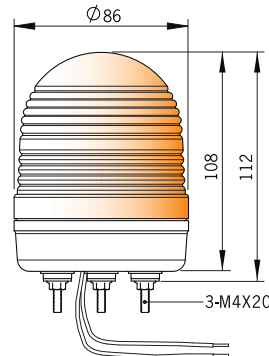
<b>00</b>	12~24V AC/DC
<b>10</b>	110V AC (non molding type)
<b>20</b>	220V AC (non molding type)

### 3. Lens Colors

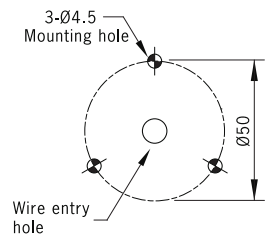
<b>R</b>	Red
<b>Y</b>	Yellow
<b>G</b>	Green
<b>B</b>	Blue
<b>C</b>	Clear



## Dimensions (unit: mm)



### ► Stud Mount hole layout

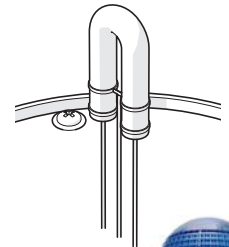
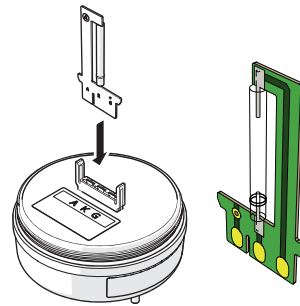


Power supply wire From wire exit 300mm

## Xenon lamp Application

► 12 ~ 24 AC/DC Type  
3W Lamp  
Replacement PCB Module

► 110V, 220V AC Type  
6W Lamp  
One body Type

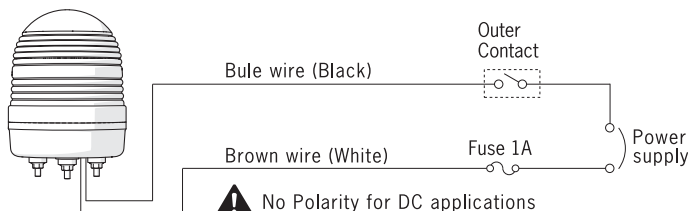


## Specifications

Size	86mm
Light source	Xenon strobe
Power Supply	12 ~24V AC/DC, 110V AC, 220V AC
Mounting	Body direct mount, L-shaped bracket
Lens colors	Red, Yellow, Green, Blue, Clear (Material: PC resin)
Flash per minute	Approx. 60 time/minute
Current Consumption	- 12 ~ 24V: 200mA 3W (Max dash current: 600mA) - 110V: 220mA 6W - 220V: 220mA 6W
Vibration	0.75mm at 10~55Hz
Ambient Temperature	-20 ~ 40°C
Storage Temperature	-40 ~ 70°C
Ambient Humidity	45 ~ 85% RH
Degree of Protection	IP65
Approvals	RoHS
Recommended Wire Size	PUR Ø5 / PVC Ø1.25 2P 0.3SQ, 300mm
Weight	Approx.300g - Mold type, Approx.200g - Standard

\* Specifications are subject to change without notice.

## Wiring Diagram



## Optional Orders

### 1. Mounting Pole



### 2. Wall Mount Brackets



See Page 40 - 42  
for Mounting Options and Accessories.

# Replacement Bulbs

Bulb Type	No	Wattag	ITEM No.	Product Series
 T10 / BA9S	1	12V 5W	<b>MAB-T09-S-012-05</b>	<b>45mm</b> <b>MT4 series</b> <b>PS / PL series</b>
	2	24V 5W	<b>MAB-T09-S-024-05</b>	
	3	130V 5W	<b>MAB-T09-S-130-05</b>	
	4	240V 5W	<b>MAB-T09-S-240-05</b>	
 G19 / BA15S	5	12V 5W	<b>MAB-T15-S-012-05</b>	<b>86mm</b> <b>AS series</b> <b>SL series</b>
 T16 / BA15S	6	12V 8W	<b>MAB-T15-S-012-08</b>	<b>56mm PR /PO series</b> <b>66mm ML series</b> <b>86mm AS series</b> <b>86mm SL series</b>
	7	24V 8W	<b>MAB-T15-S-024-08</b>	
	8	130V 8W	<b>MAB-T15-S-130-08</b>	
	9	240V 8W	<b>MAB-T15-S-240-08</b>	
 T16 / BA15D	10	12V 10W	<b>MAB-T15-D-012-10</b>	<b>56mm MT5 series</b> <b>86mm MT8 series</b>
	11	24V 10W	<b>MAB-T15-D-024-10</b>	
	12	130V 10W	<b>MAB-T15-D-130-10</b>	
	13	240V 10W	<b>MAB-T15-D-240-10</b>	
 T22 / BA15D	14	12V 25W	<b>MAB-T15-D-012-25</b>	<b>AVG series</b> <b>MSGs series</b>
	15	24V 25W	<b>MAB-T15-D-024-25</b>	
	16	130V 25W	<b>MAB-T15-D-130-25</b>	<b>AVG series</b>
	17	240V 25W	<b>MAB-T15-D-240-25</b>	
 Xenon Lamp	18	3W	<b>STROBE LAMP</b> AC/DC 12 ~ 24V	<b>86mm</b> <b>MS86S series</b>  <b>115mm</b> <b>MS115S series</b>
 Xenon Lamp *	19	6W	<b>STROBE LAMP</b> AC 110V / 220V	<b>86mm MS86S series</b> <b>115mm MS115S series</b> <b>66mm ML series</b> <b>86mm AS series</b>

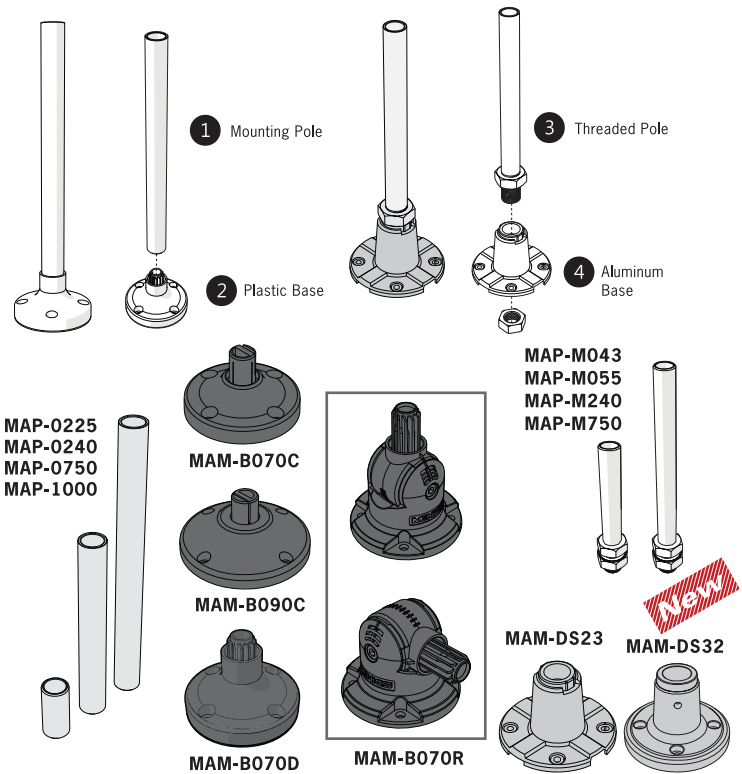
\*Please contact us.

# Tower Light Mounting Options

PTE , PTM , PTD , PME , MT5C/8C , MT4B/5B/8B

## Pole Mounting with Base

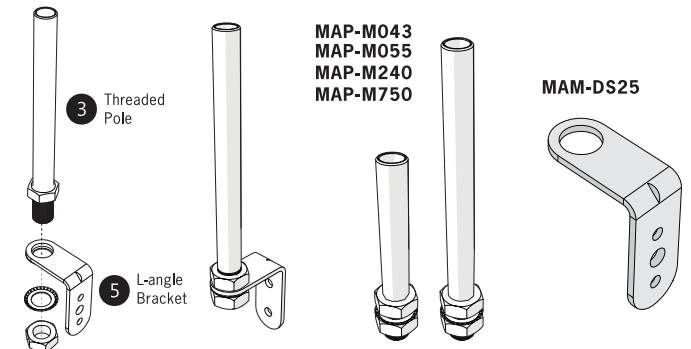
No	Part #	Description
1	MAP-0225	Ø20mm, 8.86 in (Length 225mm) Pole
	MAP-0240	Ø20mm, 9.45 in (Length 240mm) Pole
	MAP-0750	Ø20mm, 29.53 in (Length 750mm) Pole
	MAP-1000	Ø20mm, 39.37 in (Length 1000mm) Pole
2	MAM-B070C	Ø70mm Plastic Base
	MAM-B070D	Ø70mm Plastic Base With Water-Proof Rubber Gasket
	MAM-B070R	Ø70mm Plastic Base With 180° Rotating Pole Base
	MAM-B090C	Ø90mm Plastic Base
3	MAP-M043	Ø20mm, 1.69 in (Length 43mm) Pole Threaded pole With 2 Nut (M20 x 1.5Pitch)
	MAP-M055	Ø20mm, 2.17 in (Length 55mm) Pole Threaded pole With 2 Nut (M20 x 1.5Pitch)
	MAP-M240	Ø20mm, 9.45 in (Length 240mm) Pole Threaded pole With 2 Nut (M20 x 1.5Pitch)
	MAP-M750	Ø20mm, 29.53 in (Length 750mm) Pole Threaded pole With 2 Nut (M20 x 1.5Pitch)
4	MAM-DS23	Ø18, 20mm Aluminum Base - Die Casting
	MAM-DS32	Ø20mm Aluminum pole mount base - Die Casting



\* Aluminum Pole Length Options

## L-angle Mounting with Bracket

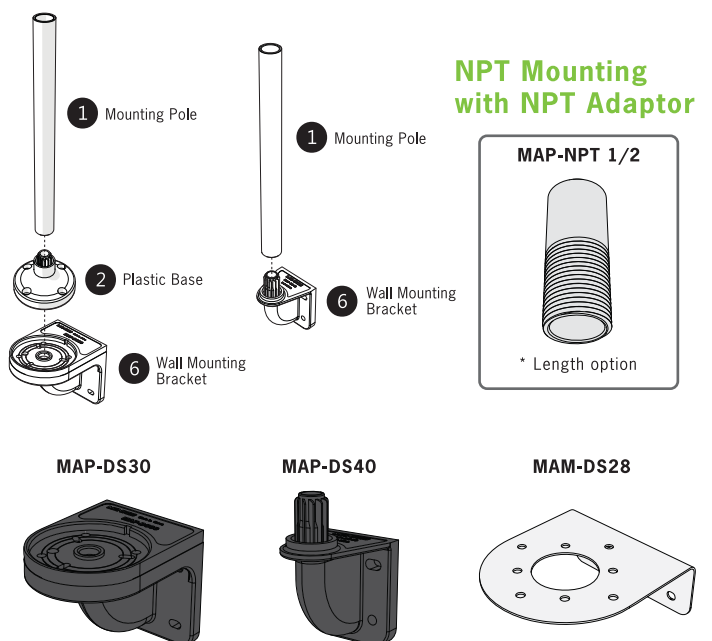
No	Part #	Description
3	MAP-M043	Ø20mm, 1.69 in (Length 43mm) Pole Threaded pole With 2 Nut
	MAP-M240	Ø20mm, 9.45 in (Length 240mm) Pole Threaded pole With 2 Nut
	MAP-M750	Ø20mm, 29.53 in (Length 750mm) Pole Threaded pole With 2 Nut
5	MAM-DS25	L-angle Bracket



\* Aluminum Pole Length Options

## Wall Mounting with Bracket

No	Part #	Description
1	MAP-0225	Ø20mm, 8.86 in (Length 225mm) Pole
	MAP-0240	Ø20mm, 9.45 in (Length 240mm) Pole
	MAP-0750	Ø20mm, 29.53 in (Length 750mm) Pole
	MAP-1000	Ø20mm, 39.37 in (Length 1000mm) Pole
2	MAM-B070C	Ø70mm Plastic Base
	MAM-B070D	Ø70mm Plastic Base With Water-Proof Rubber Gasket
6	MAP-DS30-BLK	Plastic Wall Mounting Bracket, Black Color (Pole & Base required)
	MAP-DS30-BGE	Plastic Wall Mounting Bracket, Beige Color (Pole & Base required)
	MAP-DS40-BLK	Plastic Wall Mounting Bracket, Black Color (Pole & Base required)
	MAP-DS40-BGE	Plastic Wall Mounting Bracket, Beige Color (Pole & Base required)
	MAM-DS28	Matal Wall Mounting Bracket (Pole & Base required)



\* Aluminum Pole Length Options

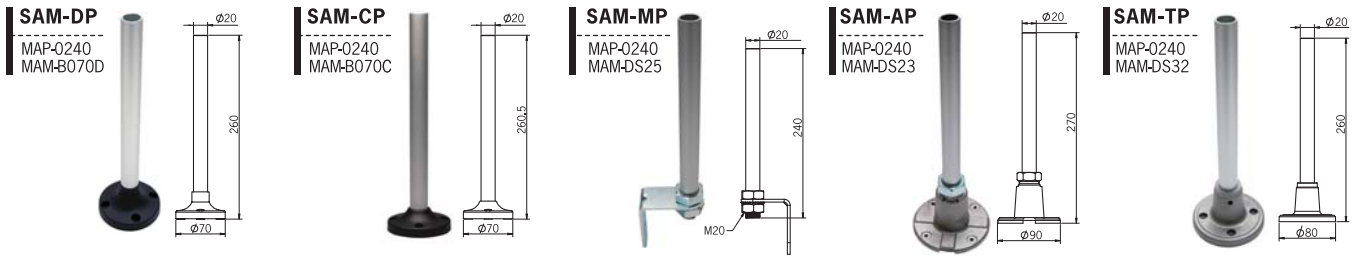
# Accessories

## Ordering information and Dimensions (UNIT : mm)

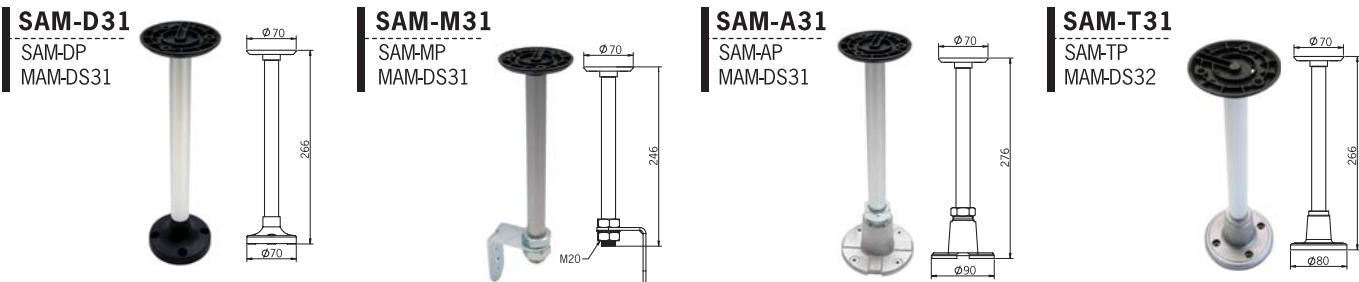
### Semi-assembled pole mounting base

LED type: PTE, PTM, PTD, PME series

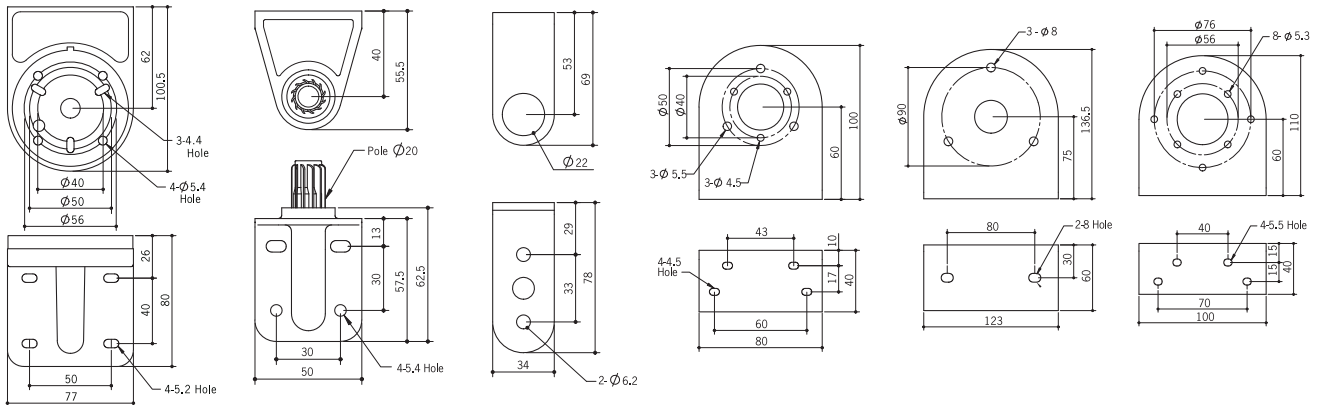
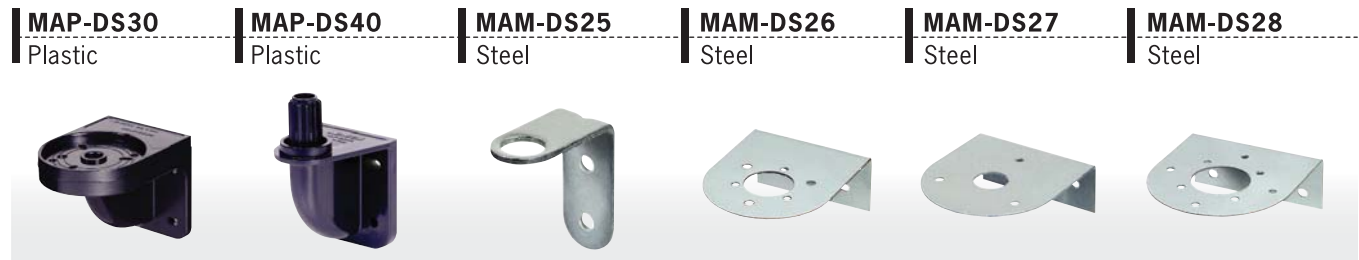
Bulb type: MT4, MT5, MT8 series



### MS86 series dedicated part

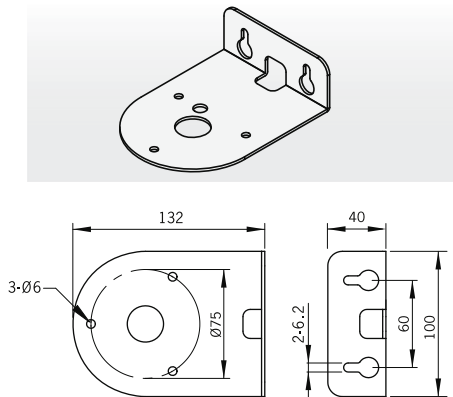


### Wall Mounting Bracket



### MAM-DS29

Steel



### Model

### Available Product

MAP-DS30-BLK	Plastic Wall Mounting Bracket, Black Color
MAP-DS30-BGE	Plastic Wall Mounting Bracket, Beige Color
MAP-DS40-BLK	Plastic Wall Mounting Bracket, Black Color
MAP-DS40-BGE	Plastic Wall Mounting Bracket, Beige Color
MAM-DS25	L-angle Steel Bracket
MAM-DS26	Wall Mounting Bracket (ML and AS Series, MS86 Series)
MAM-DS27	Wall Mounting Bracket (AVG Series)
MAM-DS28	Wall Mounting Bracket (Tower Light)
MAM-DS29	Wall Mounting Bracket (MS115 Series)





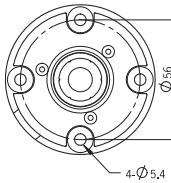
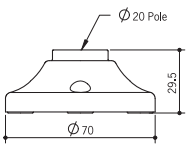
# Accessories

## Ordering information and Dimensions (UNIT : mm)

### Mount Base

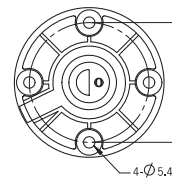
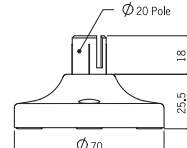
**MAM-B070B**

Plastic



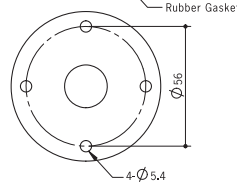
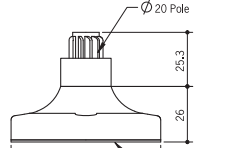
**MAM-B070C**

Plastic



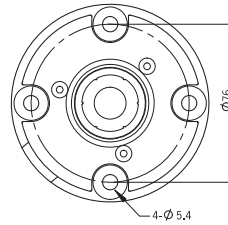
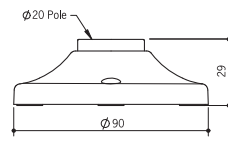
**MAM-B070D**

Plastic



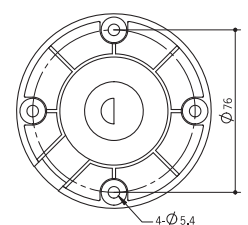
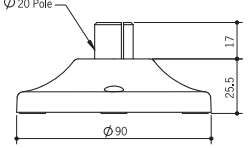
**MAM-B090B**

Plastic



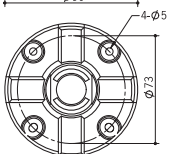
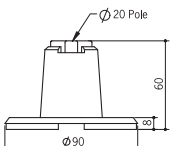
**MAM-B090C**

Plastic



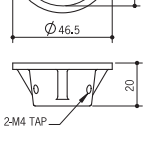
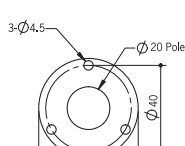
**MAM-DS23**

Aluminum



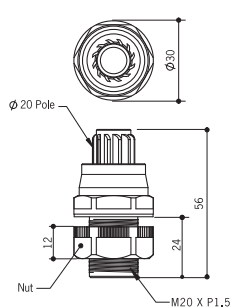
**MAM-DS24**

Aluminum



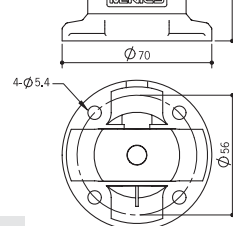
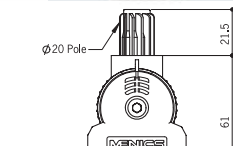
**MAM-I025**

Plastic



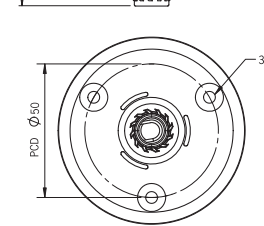
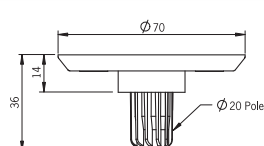
**MAM-B070R**

Plastic



**MAM-DS31**

Plastic



**Model**

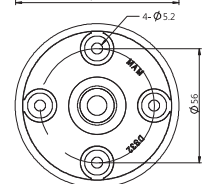
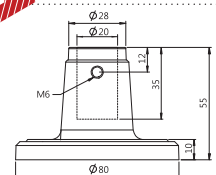
**Available Product**

MAM-B070B	Tower Light Diameter 45, 56mm Series Base Bracket (Direct mounting)
MAM-B070C	Tower Light Diameter 45, 56mm Series Base Bracket
MAM-B070D	Tower Light Diameter 45, 56mm Series Base Bracket
MAM-B070R	Tower Light Diameter 45, 56mm Series Rotaet Base Bracket (180°)
MAM-B090B	Tower Light Diameter 86mm Series Base Bracket (Direct mounting)
MAM-B090C	Tower Light Diameter 86mm Series Base Bracket
MAM-I025	Ø20mm Plastic Pole Adaptor, Screw:M20X1.5P, Color: Ivory
MAM-DS23	Ø20mm Aluminum pole mount base - Die Casting
MAM-DS24	Ø20mm Aluminum Pole Adaptor - - Die Casting
MAM-DS31	MS86 Series, Plastic Pole Adaptor
MAM-DS32	Ø20mm Aluminum pole mount base - Die Casting

**MAM-DS32**

Aluminum

**New**



ACCESSORIES