

TOWER & SIGNAL LIGHTS **CONTROL SWITCHES**



TOWER LIGHTS



- LED modular components
- Bright & even light distribution through prism-cut lenses
- Fast & easy assembly with inter-locking construction
- 3 base body options
- Optional 85dB Buzzer (fixed or adjustable volume)
- NEMA 4x / IP65 rated
- RoHS compliant



Order Information

Body Units

Body Type		Voltage	Part Number	
			Steady	Steady & Flashing
Lead Wire Connection	Pole Mounting	AC 90~240V	PTE-A-FF	PTE-AF-FF
		DC/AC 24V	PTE-A-02	PTE-AF-02
	Surface Mounting	AC 90~240V	PTE-S-FF	PTE-SF-FF
		DC/AC 24V	PTE-S-02	PTE-SF-02
Terminal Connection	Pole Mounting	AC 90~240V	PTE-TP-FF	PTE-TPF-FF
		DC/AC 24V	PTE-TP-02	PTE-TPF-02
	Surface Mounting	AC 90~240V	PTE-TC-FF	PTE-TCF-FF
		DC/AC 24V	PTE-TC-02	PTE-TCF-02

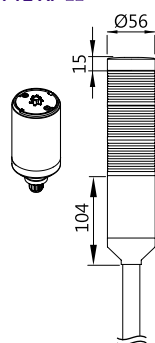
Dimensions

unit: mm

Lead Wire Connection

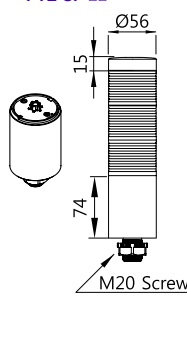
Pole Mounting

PTE-A-□□
PTE-AF-□□



Surface Mounting

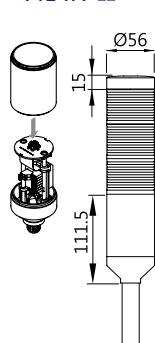
PTE-S-□□
PTE-SF-□□



Terminal Connection

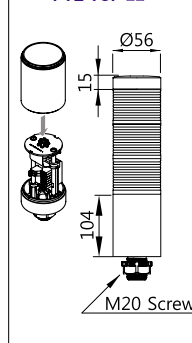
Pole Mounting

PTE-TP-□□
PTE-TPF-□□

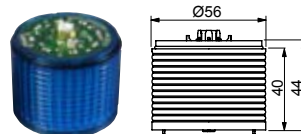


Surface Mounting

PTE-TC-□□
PTE-TCF-□□



Standard Modules



Dome Head Modules



LED Modules

LED Color	Part Number	
	Standard Module	Dome Head Module
RED	PTE-02R	PTD-02R
Yellow	PTE-02Y	PTD-02Y
Green	PTE-02G	PTD-02G
Blue	PTE-02B	PTD-02B
*Clear	PTE-02C	PTD-02C

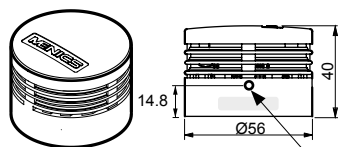
*Clear Module cannot be used with Buzzer.

Locking Bolts

Number of LED Stacks	Part Number	Size
1 Stack	B-PTE-1	M4, 65mm
2 Stacks	B-PTE-2	M4, 105mm
3 Stacks	B-PTE-3	M4, 145mm
4 Stacks	B-PTE-4	M4, 185mm
5 Stacks	B-PTE-5	M4, 225mm

*Note: Do NOT count Buzzer as a stack.

Buzzer Kits



Sound Level Adjuster

Buzzer Kits (Optional)

Buzzer Style	Part Number
Fixed Sound Level	MPZ-56F
Adjustable Sound Level	MPZ-56G

*Note: Max. number of tier including Buzzer is 5.

See Page 13-14
for Mounting Options and Accessories.



Specifications

Body Units

Operation/Function	Steady/ Flashing	
Power Supply	AC/DC 24V (±10%)	AC 90~240V 50/60 Hz (±10%)
Buzzer Sound Level	Fixed: 85dB Adjustable: 10~85dB	
Lens Color	Red, Yellow, Green, Blue & Clear	
Lens Diameter	56 mm (2.2 inch)	
Maximum Tier	5	
Flash Rate	80 times/ minute	
Vibration	3mm at 10~55Hz	
Ambient Temperature	-15°C~40°C	
Storage Temperature	-40°C ~ 70°C	
Ambient Humidity	45~85% RH	
Degree of Protection	NEMA 4x, IP65 / IP50 (with Buzzer)	
Approvals	CE , UL, RoHS	
Recommended Wire Size	1007 UL / 22 AWG	

LED Modules

		Red	Yellow	Green	Blue	Clear
Current / Power	Standard Module	27mA / 0.65W		35mA / 0.84W		
	Dome Head Module	58mA / 2.64W		52mA / 1.25W		53mA / 1.27W
Weight		Standard Module: 42.8g Dome Head Module: 53g				

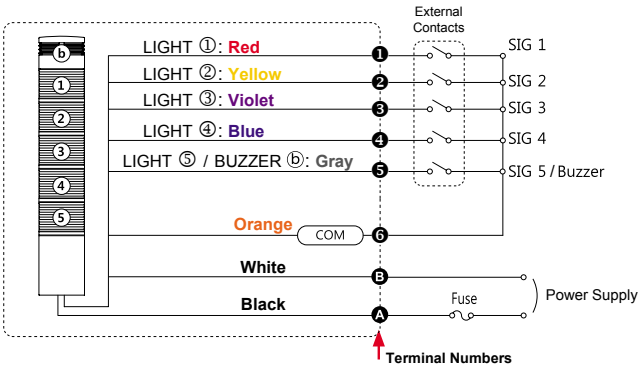
Buzzer Kits

Model	MPZ-56F	MPG-56G
Style	Fixed Sound Level	Adjustable Sound Level
Sound Level	85 dB	10~85 dB
Current Consumption / Power	30mA / 0.72W	30mA / 0.72W
Weight	32.2g	33g

Wiring Diagram

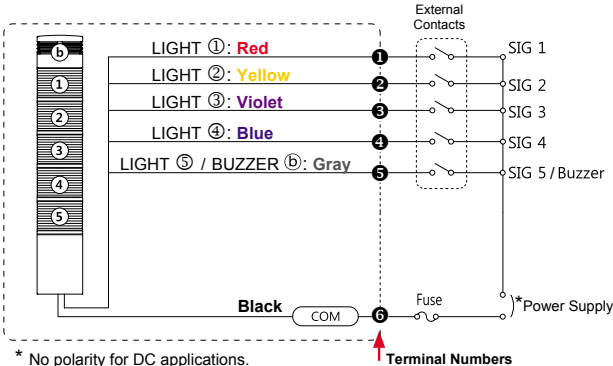
AC 90~240V
Steady Lights

PTE-A-FF PTE-S-FF PTE-T□-FF



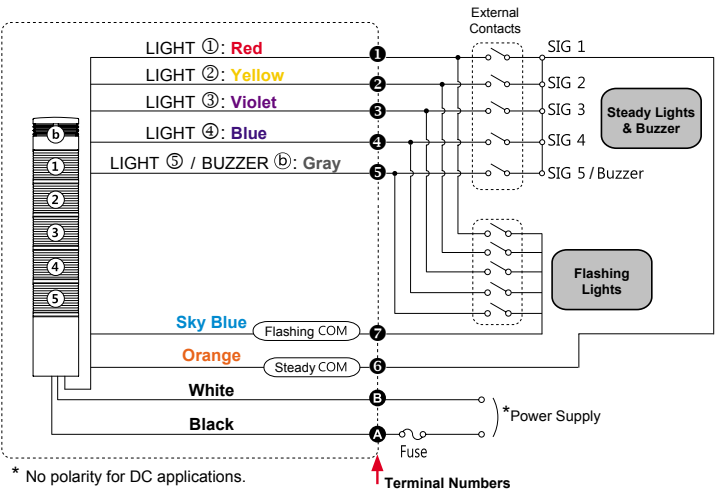
DC/AC 24V
Steady Lights

PTE-A-02 PTE-S-02 PTE-T□-02

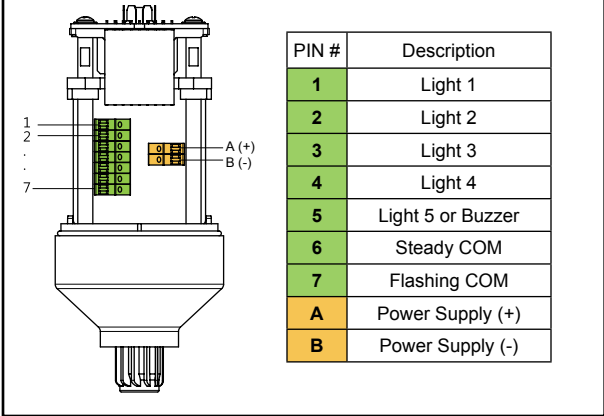


AC 90~240V
DC/AC 24V
Steady & Flashing Lights

PTE-AF-02 PTE-AF-FF
PTE-SF-02 PTE-SF-FF
PTE-T□F-02 PTE-T□F-FF



Terminal Connections



PIN #	Description
1	Light 1
2	Light 2
3	Light 3
4	Light 4
5	Light 5 or Buzzer
6	Steady COM
7	Flashing COM
A	Power Supply (+)
B	Power Supply (-)

PTM Ø56mm *LED 3 colors in 1* Steady & Flashing with Buzzer

TOWER LIGHTS



- 3 colors in 1 LED modular components
- Bright & even light distribution through prism-cut lenses
- Fast & easy assembly with inter-locking construction
- 3 base body options
- Optional 85dB Buzzer (fixed or adjustable volume)
- NEMA 4x / IP65 rated
- RoHS compliant



Order Information

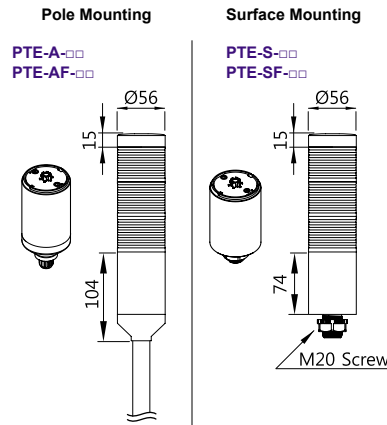
Body Units

Body Type		Voltage	Part Number	
			Steady	Steady & Flashing
Lead Wire Connection	Pole Mounting	AC 90~240V	PTE-A-FF	PTE-AF-FF
		DC/AC 24V	PTE-A-02	PTE-AF-02
	Surface Mounting	AC 90~240V	PTE-S-FF	PTE-SF-FF
		DC/AC 24V	PTE-S-02	PTE-SF-02
Terminal Connection	Pole Mounting	AC 90~240V	PTE-TP-FF	PTE-TPF-FF
		DC/AC 24V	PTE-TP-02	PTE-TPF-02
	Surface Mounting	AC 90~240V	PTE-TC-FF	PTE-TCF-FF
		DC/AC 24V	PTE-TC-02	PTE-TCF-02

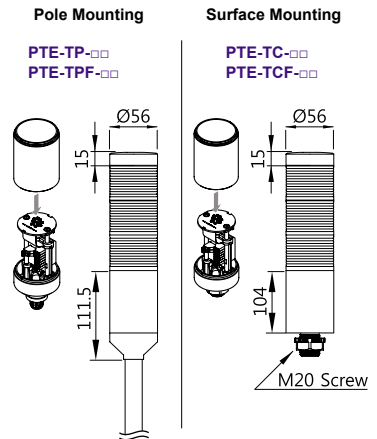
Dimensions

unit: mm

Lead Wire Connection



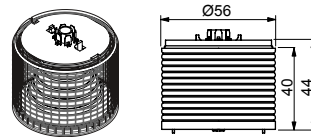
Terminal Connection



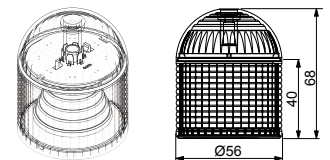
LED Modules

LED Color		Part Number	
		Standard Module	Dome Head Module
3 colors in 1	R/Y/G	PTM-02RYG	PTMD-02RYG
	R/B/G	PTM-02RBG	PTMD-02RBG

Standard Modules



Dome Head Modules



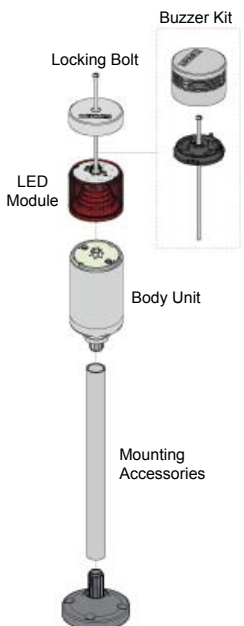
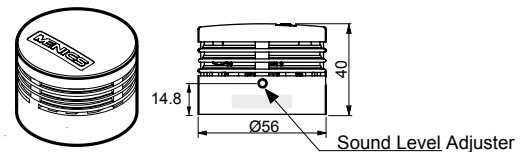
Locking Bolts

Part Number	Size
B-PTE-1	M4, 65mm

Buzzer Kits (Optional)

Buzzer Style	Part Number
Fixed Sound Level	MPZ-56F
Adjustable Sound Level	MPZ-56G

Buzzer Kits



See **Page 13-14**
for Mounting Options and Accessories.

Specifications

Body Units

Operation/Function	Steady/ Flashing	
Power Supply	AC/DC 24V (±10%)	AC 90~240V 50/60 Hz (±10%)
Buzzer Sound Level	Fixed: 85dB Adjustable: 10~85dB	
Lens Color	3 colors in 1 module: Red/Yellow/Green, Red/Blue/Green	
Lens Diameter	56 mm (2.2 inch)	
Maximum Tier	2	
Flash Rate	80 times/ minute	
Vibration	3mm at 10~55Hz	
Ambient Temperature	-15°C~40°C	
Storage Temperature	-40°C ~ 70°C	
Ambient Humidity	45~85% RH	
Degree of Protection	NEMA 4x, IP65 / IP50 (with Buzzer)	
Approvals	CE , UL, RoHS	
Recommended Wire Size	1007 UL / 22 AWG	

LED Modules

Color		3 colors in 1			
		R/Y/G		R/B/G	
Current / Power	Standard Module	R	30mA / 0.72W	R	30mA / 0.72W
		Y		G	
		G	25mA / 0.6W	B	25mA / 0.6W
	Dome Head Module	R	58mA / 2.64 W	R	58mA / 2.64 W
		Y		G	
		G	52mA / 1.25W	B	52mA / 1.25W
Weight		Standard Module: 42.8g		Dome Head Module: 53g	

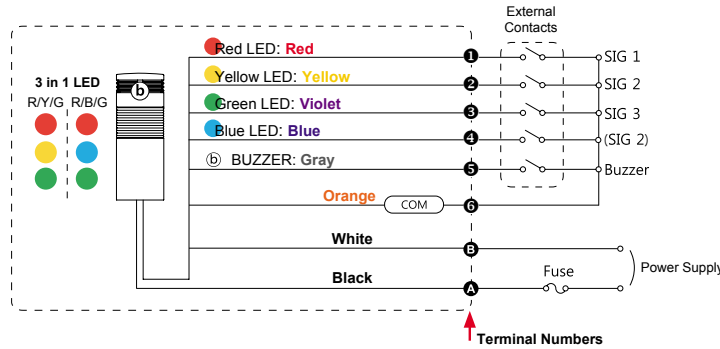
Buzzer Kits

Model	MPZ-56F	MPG-56G
Style	Fixed Sound Level	Adjustable Sound Level
Sound Level	85 dB	10~85 dB
Current Consumption / Power	30mA / 0.72W	30mA / 0.72W
Weight	32.2g	33g

Wiring Diagram

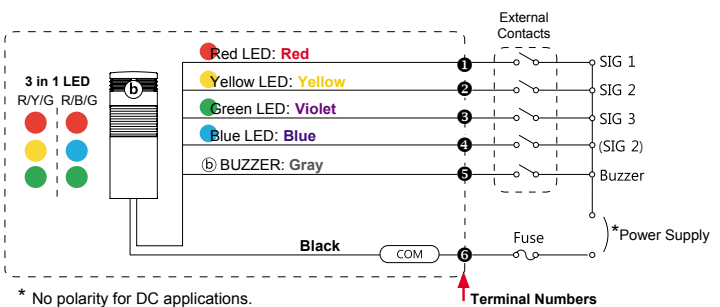
AC 90~240V
Steady Lights

PTE-A-FF PTE-S-FF PTE-T□-FF



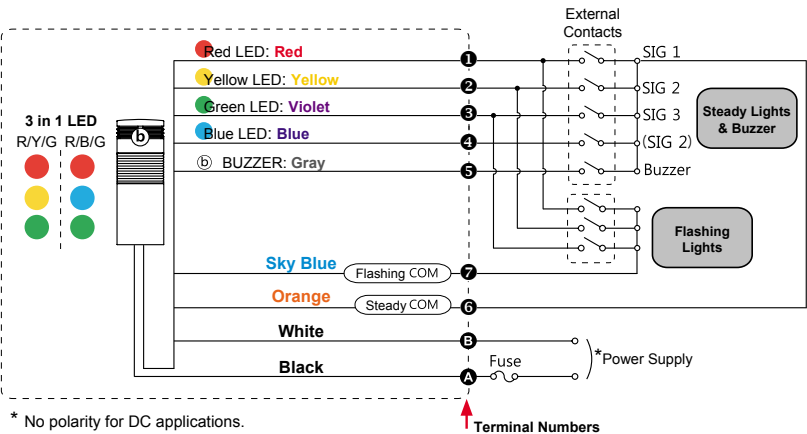
DC/AC 24V
Steady Lights

PTE-A-02 PTE-S-02 PTE-T□-02

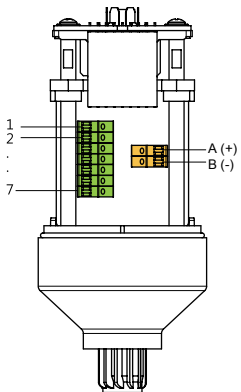


AC 90~240V
DC/AC 24V
Steady & Flashing Lights

PTE-AF-02 PTE-AF-FF
PTE-SF-02 PTE-SF-FF
PTE-T□F-02 PTE-T□F-FF



Terminal Connections



PIN #	Description
1	Red LED
2	Yellow LED
3	Green LED
4	Blue LED
5	Buzzer
6	Steady COM
7	Flashing COM
A	Power Supply (+)
B	Power Supply (-)

PRE Ø56mm LED Steady & Flashing with Buzzer

TOWER LIGHTS



- Long life and reliability
- Prism-cut lenses for even light distribution
- Surface, Pole or Wall Mounted (Order poles & bases separately)
- Wire leads
- Add-on Buzzer (80 dB) kit available



Order Information

PRE	F	5	01	RYGBC
①	②	③	④	
① Light Style			Steady	
	F		Steady & Flashing	
② Number of Stacks	1		1 Light	
	2		2 Lights	
	3		3 Lights	
	4		4 Lights	
	5		5 Lights	
③ Power Supply	01		DC/AC 12V	
	02		DC/AC 24V	
	10		AC 110V	
	20		AC 220V	
④ Lens Colors (top to bottom)	R		Red	
	Y		Yellow	
	G		Green	
	B		Blue	
	C		Clear	

Optional Orders

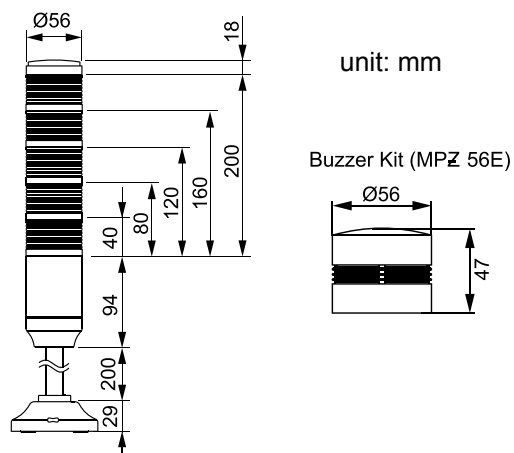
PART	PART NUMBER	DESCRIPTION
Buzzer	MPZ-56E	Ø56mm, 80dB (30mA), 24~240V DC/AC *Buzzer is not available for 12V DC/AC.

Replacement Parts

LED	PRELED-5(□)	24~240V AC/DC
	PRELED-5(□)-12	12V AC/DC
Lens	PEL-5(□)	—

(□): indicates color of LED or Lens; R, Y, G, B or C

Dimensions



Specifications

Power Supply		12V AC/DC	24V AC/DC	120/240V AC
Current Draw	1 Stack	54 mA	28 mA	25 mA
	2 Stack	109 mA	62 mA	57 mA
	3 Stack	169 mA	102 mA	91 mA
	4 Stack	223 mA	136 mA	124 mA
	5 Stack	275 mA	169 mA	155 mA
	Buzzer	—	30 mA	—
Sound Level		—	80 dB	—
Flashing rate		80 times/minute		
Rating		IP 56		

See Page 13-14
for Mounting Options and Accessories.

PME Ø45mm LED Steady & Flashing

TOWER LIGHTS

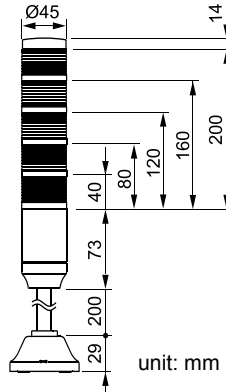


- Long life and reliability
- Prism-cut lenses for even light distribution
- Surface, Pole or Wall Mounted (Order poles & bases separately)
- Wire leads



Specifications

Power Supply		12V AC/DC	24V AC/DC	100-220V AC
Current Draw	1 Stack	41 mA	27 mA	28 mA
	2 Stack	89 mA	57 mA	60 mA
	3 Stack	149 mA	95 mA	99 mA
	4 Stack	204 mA	125 mA	131 mA
	5 Stack	240 mA	155 mA	163 mA
Flashing rate		80 times/minute		
Rating		IP 56		



Order Information

PME	F	5	01	RYGBC
①	②	③	④	
① Light Style	F	Steady		
		Steady & Flashing		
② Number of Stacks	1	1 Light		
	2	2 Lights		
	3	3 Lights		
	4	4 Lights		
	5	5 Lights		
③ Power Supply	01	DC/AC 12V		
	02	DC/AC 24V		
	FF	AC 90~240V		
④ Lens Colors (top to bottom)	R	Red		
	Y	Yellow		
	G	Green		
	B	Blue		
	C	Clear		

Replacement Parts

LED	PMELED-4(□)	24~240V AC/DC
	PMELED-4(□)-12	12V AC/DC
Lens	PML-4(□)	—

(□): indicates color of LED or Lens; R, Y, G, B or C

See Page 13-14
for Mounting Options and Accessories.

PAE Ø25mm LED Steady & Flashing

TOWER LIGHTS

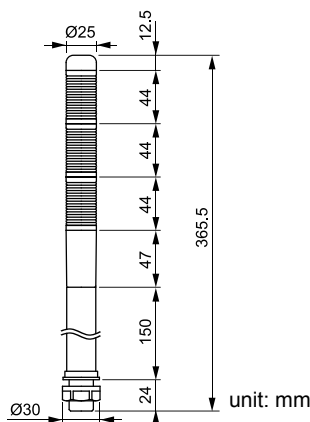


- Long life and reliability
- Prism-cut lenses for even light distribution
- Surface, Pole or Wall Mounted (Order poles & bases separately)
- Wire leads



Specifications

Power Supply		12V AC/DC	24V AC/DC
Current Draw	1 Stack	30 mA	25 mA
	2 Stack	65 mA	60 mA
	3 Stack	100 mA	90 mA
	4 Stack	135 mA	120 mA
	5 Stack	170 mA	150 mA
Flashing rate		80 times/minute	
Rating		IP 56	



Order Information

PAE	F	M	G	5	01	RYGBC
①	②	③	④	⑤	⑥	
① Light Style	F	Steady				
		Steady & Flashing				
② Mounting	M	Standard				
		Pole Mount				
		90° Bracket				
③ Pole Length	P	No Pole				
		51mm pole				
		150mm pole				
④ Number of Stacks	1	1 Light				
	2	2 Lights				
	3	3 Lights				
	4	4 Lights				
	5	5 Lights				
⑤ Power Supply	01	DC/AC 12V				
	02	DC/AC 24V				
⑥ Lens Colors (top to bottom)	R	Red				
	Y	Yellow				
	G	Green				
	B	Blue				
	C	Clear				

Steady Lights

* No polarity for DC applications.

Steady & Flashing Lights

* No polarity for DC applications.

* No polarity for DC applications.

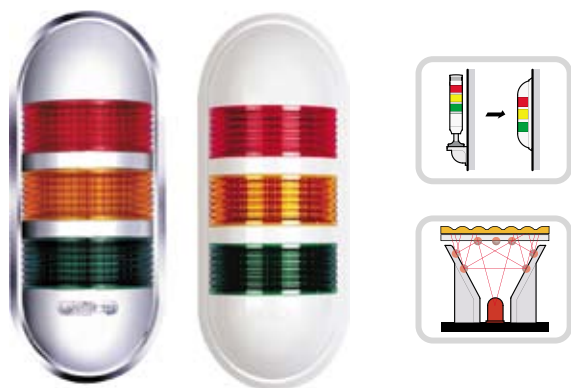
* No polarity for DC applications.

Black FUSE Power Supply

Block Erase

PWE Wall Mounted **LED** Tower Lights with Buzzer

TOWER LIGHTS



- Slim Profile Wall Mount
- Easy Mounted vertically and horizontally
- Equivalent brightness in every angle
- Steady and flashing lights
- Vibration and moisture resistant
- Chrome or tan colored body

Order Information

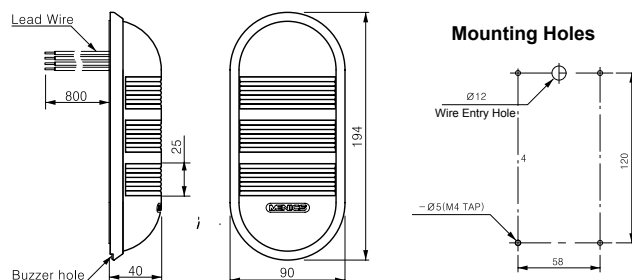
PWE **C** **F** - **3** **02** - **RYG**
 ① ② ③ ④ ⑤

① Housing Color		Cream
	C	Chrome
② Light Style		Steady
	F	Steady & Flashing
	B	Steady with Buzzer
	Z	Steady & Flashing with Buzzer
③ Number of Stacks	1	1 Light
	2	2 Lights
	3	3 Lights
④ Power Supply	02	DC/AC 24V
	FF	AC 90~240V
⑤ Lens Colors (top to bottom)	R	Red
	Y	Yellow
	G	Green

Specifications

Power Supply		24V AC/DC	90~240V AC
Current Draw	1 Stack	28 mA	30 mA
	2 Stack	63 mA	65 mA
	3 Stack	103 mA	100 mA
Sound Level		85 dB	
Flashing rate		80 times/minute	
Rating		IP 65/ IP 56 with Buzzer	

Dimensions

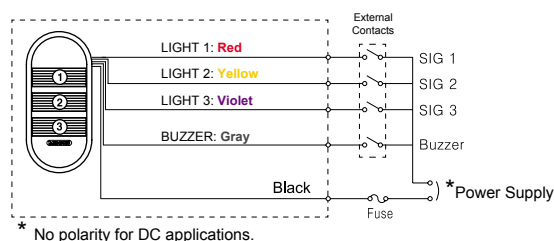


Wiring Diagram

DC/AC 24V

Steady Lights (with Buzzer)

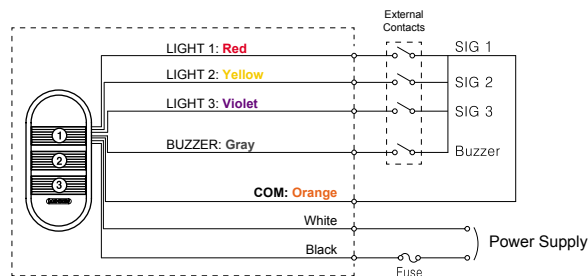
PWE-002-000 PWEB-002-000



AC 90~240V

Steady Lights (with Buzzer)

PWE-0FF-000 PWEB-0FF-000



AC 90~240V

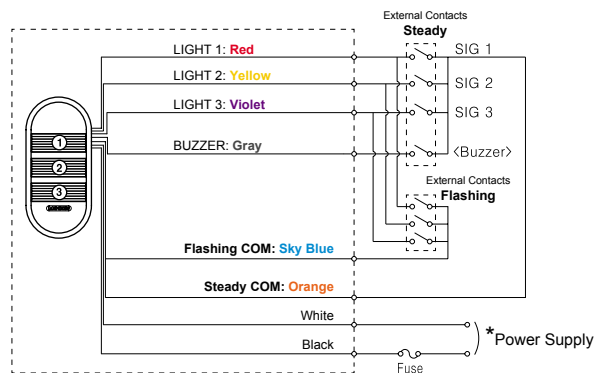
DC/AC 24V

Steady & Flashing Lights (with Buzzer)

PWEF-002-000

PWEZ-002-000

PWEF-0FF-000



MT5C/8C Ø56mm / Ø85mm Steady & Flashing with Buzzer

TOWER LIGHTS



Incandescent or **LED**

- Optional LED bulbs available
- Selectable Steady or Flashing Modes
- Prism-cut lenses for even light distribution
- Surface, Pole or Wall Mounted (Order poles & bases separately)
- Wire leads or Terminal connection
- Add-on Buzzer (80 dB) kit available
- NEMA 12, 3R / IP56 rated



Order Information

MT 5 C 5 A L - RYGB C
① ② ③ ④ ⑤ ⑥

① Lens Diameter	5	Ø56mm
	8	Ø85mm
② Light Style	C	Steady & Flashing
③ Number of Stacks	1	1 Light
	2	2 Lights
	3	3 Lights
	4	4 Lights
	5	5 Lights
④ Power Supply	A	DC/AC 24V
	B	AC 110~120V
	C	AC 220~240V
⑤ Connection	L	Lead Wires
	T	Screw Terminals
⑥ Lens Colors (top to bottom)	R	Red
	Y	Yellow
	G	Green
	B	Blue
	C	Clear

Optional Orders

Buzzer Kits

MPZ - 56 A

Power Supply	
A	DC/AC 24V, 80dB (30mA)
B	AC 110~120V, 80dB (30mA)
C	AC 220~240V, 80dB (30mA)
Buzzer Size (Diameter)	
56	Ø56mm (for MT5C Series)
85	Ø85mm (for MT8C Series)

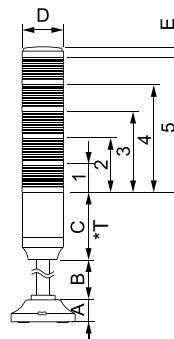
Replacement Parts

LED		LED-T15-D-24-(□)	DC 24V
		LED-T15-D-110-(□)	AC 110~120V
		LED-T15-D-220-(□)	AC 220~240V
BULB		MAB-T15-D-024-10	DC/AC 24V, 10W
		MAB-T15-D-120-10	AC 110~120V, 10W
		MAB-T15-D-240-10	AC 220~240V, 10W
Lens	—	MAL-5(□)	Ø56mm
		MAL-8(□)	Ø85mm

(□): indicates color of LED or Lens; R, Y, G, B or C

Specifications

Power Supply		24V AC/DC	110~120V AC	220~240V AC
Current Draw	Bulb	1 Stack	54 mA	28 mA
		2 Stack	109 mA	57 mA
		3 Stack	169 mA	91 mA
		4 Stack	223 mA	124 mA
		5 Stack	275 mA	155 mA
	LED	Per Stack	180 mA	35 mA
Buzzer		28 mA		
LED Life-Span		10,000 hours (minimum)		
Sound Level		80 dB		
Flashing rate		80 times/minute		
Rating		NEMA 12, 3R / IP 56		
Approvals		UL, cUL, CE		



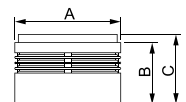
Symbol	Model	
	MT5C	MT8C
A	29	29
B	185	185
C	95	108
*T	173	188
D	56	85
E	15	15
1	68	68
2	136	136
3	204	204
4	272	272
5	340	340

*T: Terminal board style

unit: mm

Buzzer Kit

MPZ-56
MPZ-85



Symbol	MPZ-56	MPZ-85
A	56	86
B	48	50
C	54	56

See Page 13-14
for Mounting Options and Accessories

MT4B/5B/8B Ø45mm / Ø56mm / Ø86mm Steady

TOWER LIGHTS



Incandescent or LED

- Optional LED bulbs available (12VDC & 24VDC ONLY)
- Long life and reliability
- Prism-cut lenses for even light distribution
- Surface, Pole or Wall Mounted
(Order poles & bases separately)
- Wire leads or Terminal connection
- NEMA 12, 3R / IP56 rated



Order Information

MT	4	B	5	A	L	-	RYGBC
	①	②	③	④	⑤		⑥
① Lens Diameter		4	Ø45mm				
		5	Ø56mm				
		8	Ø85mm				
② Light Style		B	Steady				
③ Number of Stacks		1	1 Light				
		2	2 Lights				
		3	3 Lights				
		4	4 Lights				
		5	5 Lights				
④ Power Supply		D	DC/AC 12V				
		A	DC/AC 24V				
		B	AC 110~120V				
		C	AC 220~240V				
⑤ Connection		L	Lead Wires				
⑥ Lens Colors (top to bottom)		R	Red				
		Y	Yellow				
		G	Green				
		B	Blue				
		C	Clear				

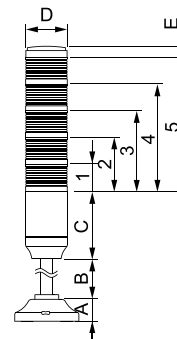
Optional Orders

Replacement Parts

MT4B	LED		LED-T09-S-12-(□)	DC 12V
			LED-T09-S-24-(□)	DC 24V
	BULB		MAB-T09-S-012-05	DC/AC 12V, 5W
			MAB-T09-S-024-05	DC/AC 24V, 5W
			MAB-T09-S-130-05	AC 110~120V, 5W
			MAB-T09-S-240-05	AC 220~240V, 5W
Lens	—	MAL-4(□)	Ø45mm	
MT5B MT8B	LED		LED-T15-D-12-(□)	DC 12V
			LED-T15-D-24-(□)	DC 24V
			LED-T15-D-110-(□)	AC 110~120V
			LED-T15-D-220-(□)	AC 220~240V
	BULB		MAB-T15-D-012-10	DC/AC 12V, 10W
			MAB-T15-D-024-10	DC/AC 24V, 10W
			MAB-T15-D-120-10	AC 110~120V, 10W
			MAB-T15-D-240-10	AC 220~240V, 10W
	Lens	—	MAL-5(□)	Ø56mm
			MAL-8(□)	Ø86mm

(□): indicates color of LED or Lens; R, Y, G, B or C

Dimensions



unit: mm

Symbol	Model		
	MT4B	MT5B	MT8B
A	29	29	29
B	185	185	185
C	72	95	108
D	45	56	86
E	10.5	15	15
1	46	68	68
2	92	136	136
3	138	204	204
4	184	272	272
5	230	340	340

Specifications

Power Supply		12V AC/DC	24V AC/DC	100-220V AC
Current Draw	1 Stack	41 mA	27 mA	28 mA
	2 Stack	89 mA	57 mA	60 mA
	3 Stack	149 mA	95 mA	99 mA
	4 Stack	204 mA	125 mA	131 mA
	5 Stack	240 mA	155 mA	163 mA
Flashing rate		80 times/minute		
Rating		IP 56		

See Page 13-14
for Mounting Options and Accessories

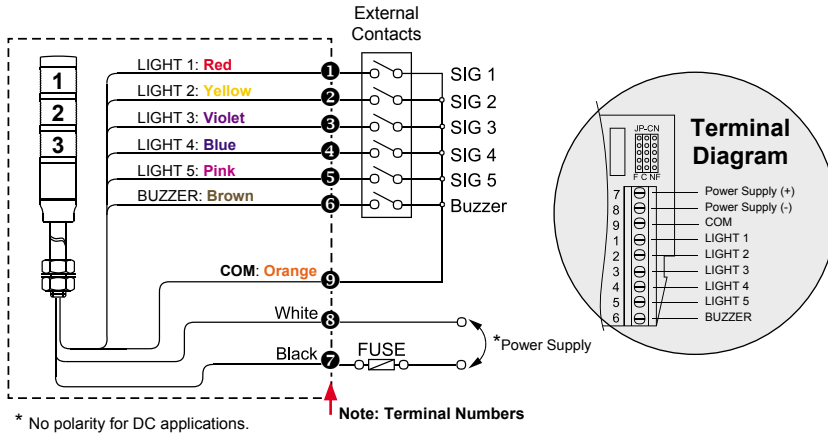
MT5C/8C & MT4B/5B/8B Wiring Diagram

MT5C/8C

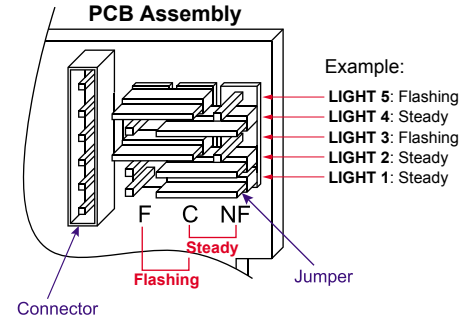
DC/AC 24V

Steady or Flashing (with Buzzer)

MT5C□AL-□□□□ MT8C□AL-□□□□
MT5C□AT-□□□□ MT8C□AT-□□□□



Steady/Flashing Selection

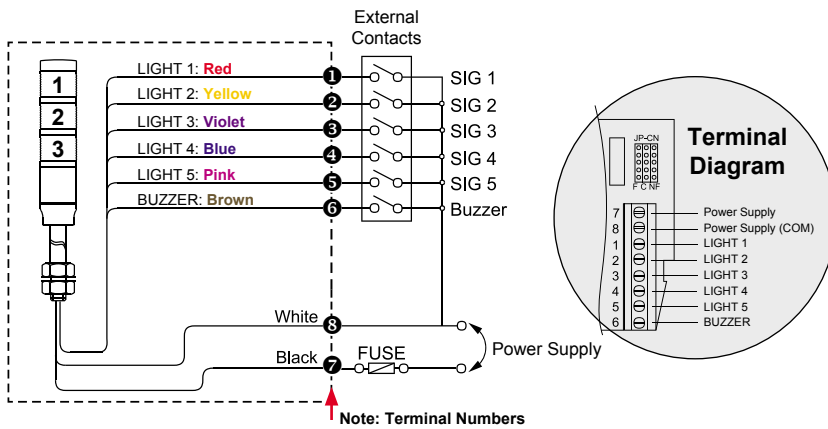


AC 110~120V

AC 220~240V

Steady or Flashing Lights (with Buzzer)

MT5C□BL-□□□□ MT8C□BL-□□□□
MT5C□BT-□□□□ MT8C□BT-□□□□
MT5C□CL-□□□□ MT8C□CL-□□□□
MT5C□CT-□□□□ MT8C□CT-□□□□



MT4B/5B/8B

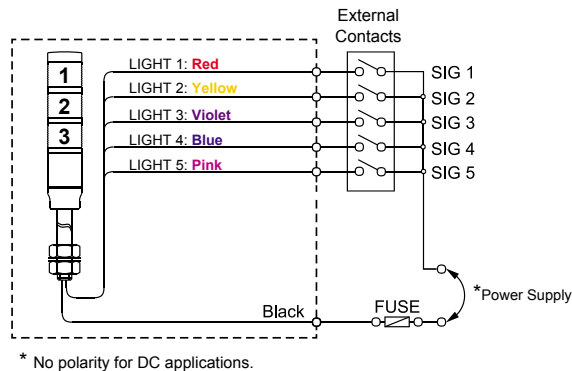
AC/DC 12V

AC/DC 24V

Steady Lights

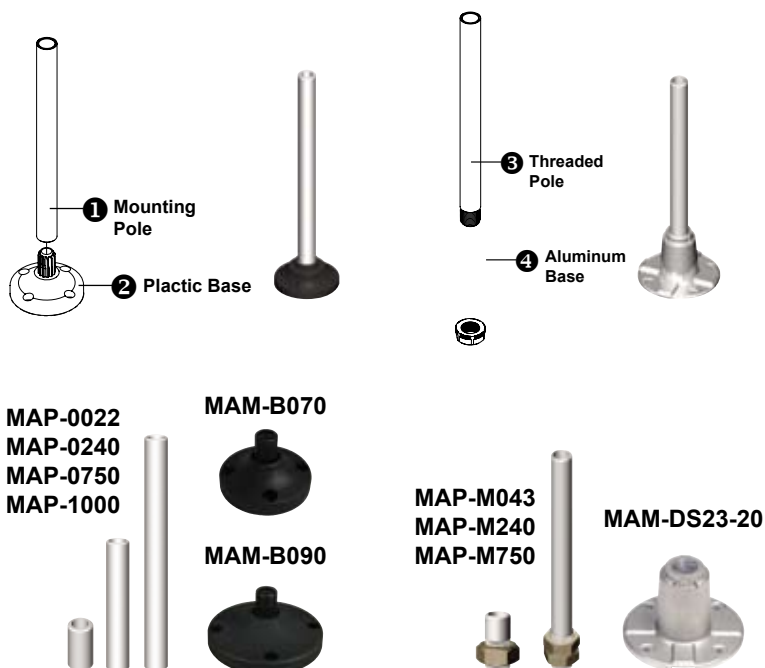
AC 110~120V

AC 220~240V



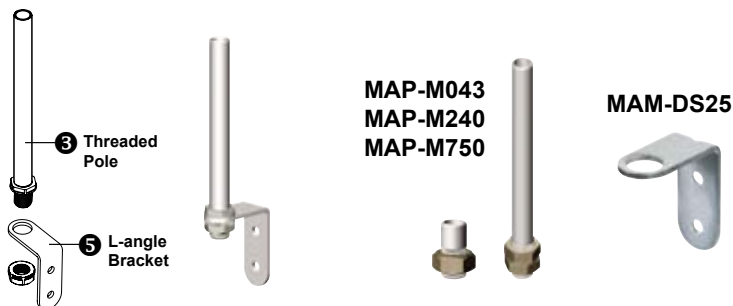
Pole Mounting with Base

Part	Part #	Description
1	MAP-0022	Ø20mm, 0.87 in (22 mm) pole
	MAP-0240	Ø20mm, 9.45 in (240 mm) pole
	MAP-0750	Ø20mm, 29.53 in (750 mm) pole
	MAP-1000	Ø20mm, 39.37 in (1000 mm) pole
2	MAM-B070	Ø70mm Plastic Base
	MAM-B090	Ø90mm Plastic Base
3	MAP-M043	Ø20mm, 1.69 in (43 mm) threaded pole with 1 nut
	MAP-M240	Ø20mm, 9.45 in (240 mm) threaded pole with 2 nuts
	MAP-M750	Ø20mm, 29.53 in (750 mm) threaded pole with 1 nut
4	MAM-DS23-20	Aluminum Base



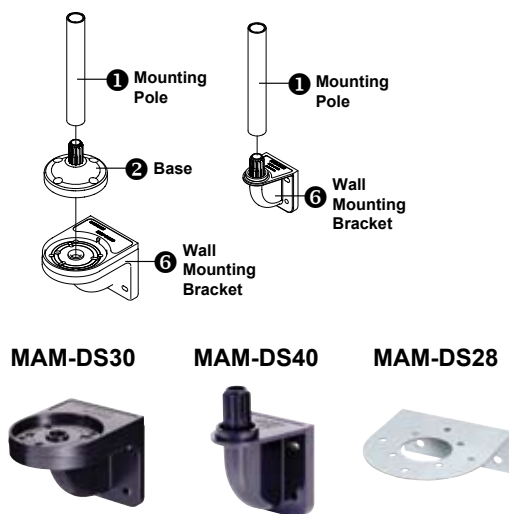
L-angle Mounting with Bracket

Part	Part #	Description
3	MAP-M043	Ø20mm, 1.69 in (43 mm) threaded pole with 1 nut
	MAP-M240	Ø20mm, 9.45 in (240 mm) threaded pole with 2 nuts
	MAP-M750	Ø20mm, 29.53 in (750 mm) threaded pole with 1 nut
5	MAM-DS25	L-angle Bracket



Wall Mounting with Bracket

Part	Part #	Description
1	MAP-0022	Ø20mm, 0.87 in (22 mm) pole
	MAP-0240	Ø20mm, 9.45 in (240 mm) pole
	MAP-0750	Ø20mm, 29.53 in (750 mm) pole
	MAP-1000	Ø20mm, 39.37 in (1000 mm) pole
2	MAM-B070	Plastic Base
6	MAM-DS30-BLK	Plastic Wall Mounting Bracket, Black (Pole & Base required)
	MAM-DS30-BGE	Plastic Wall Mounting Bracket, Beige (Pole & Base required)
	MAM-DS40-BLK	Plastic Wall Mounting Bracket, Black (Pole required)
	MAM-DS40-BGE	Plastic Wall Mounting Bracket, Beige (Pole required)
	MAM-DS28	Metal Wall Mounting Bracket (Pole & Base required)



NPT Mounting with NPT Adaptor

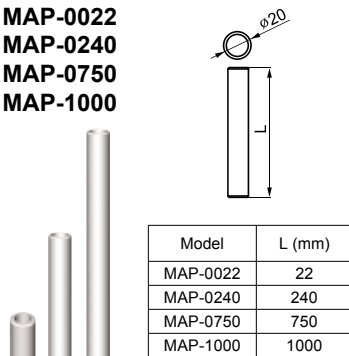


MAP-NPT1/2

Accessories

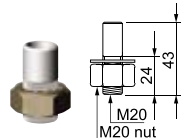
Mounting Poles

MAP-0022
MAP-0240
MAP-0750
MAP-1000

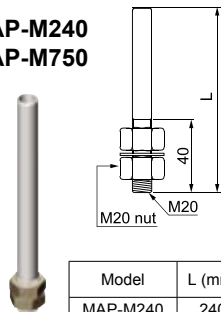


Threaded Poles

MAP-M043



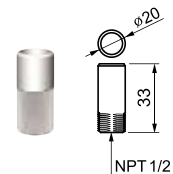
MAP-M240
MAP-M750



Model	L (mm)
MAP-M240	240
MAP-M750	750

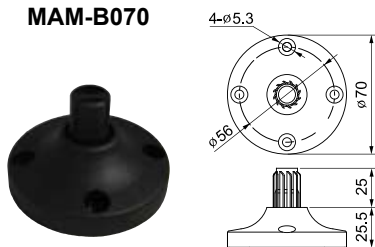
NPT Adaptor

MAP-NPT1/2



Mounting Bases

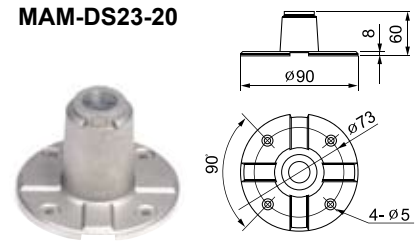
MAM-B070



MAM-B090

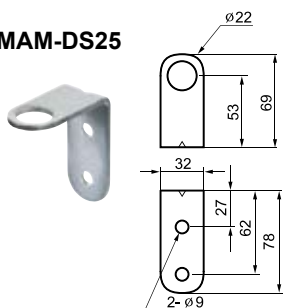


MAM-DS23-20

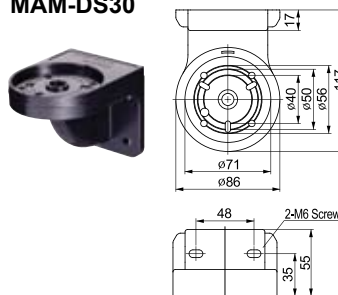


Wall Mount Brackets

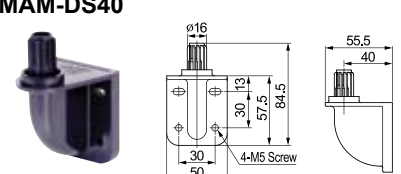
MAM-DS25



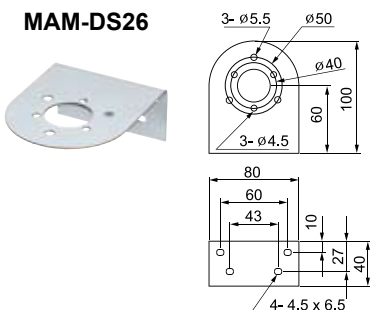
MAM-DS30



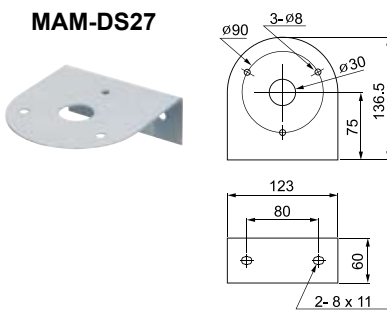
MAM-DS40



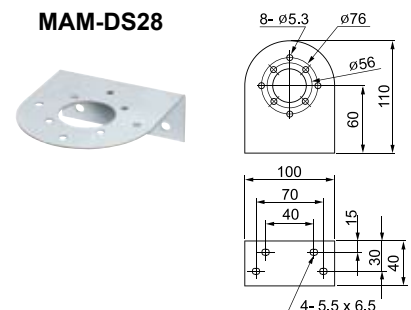
MAM-DS26



MAM-DS27



MAM-DS28



MS86 Ø86mm **LED** Steady & Flashing / Xenon Strobe Lights

SIGNAL LIGHTS



- Ultra bright LED or Xenon lights
- Wide light distribution with prism-cut dome-shaped lens
- Outstanding visibility at distance
- Selectable Steady or Flashing Modes for LED lights
- PCB module style Xenon lamp
- Fast and easy replacement of lamp
- Red, Yellow, Green, Blue and lens available
- IP65 rated



Order Information

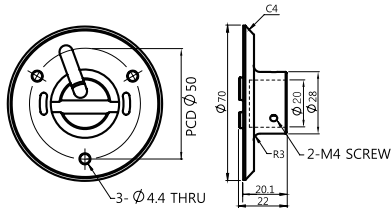
MS86	L-F	02	-	R												
<table><tr><th colspan="2">Lens Colors</th></tr><tr><td>R</td><td>Red</td></tr><tr><td>Y</td><td>Yellow</td></tr><tr><td>G</td><td>Green</td></tr><tr><td>B</td><td>Blue</td></tr><tr><td>C</td><td>Clear</td></tr></table>					Lens Colors		R	Red	Y	Yellow	G	Green	B	Blue	C	Clear
Lens Colors																
R	Red															
Y	Yellow															
G	Green															
B	Blue															
C	Clear															
<table><tr><th colspan="2">Power Supply</th></tr><tr><td>02</td><td>AC/DC 12~24V (AC/DC 24V for LED Style)</td></tr><tr><td>10</td><td>AC 110V</td></tr></table>					Power Supply		02	AC/DC 12~24V (AC/DC 24V for LED Style)	10	AC 110V						
Power Supply																
02	AC/DC 12~24V (AC/DC 24V for LED Style)															
10	AC 110V															
<table><tr><th colspan="2">Light Style</th></tr><tr><td>L-F</td><td>LED Steady & Flashing</td></tr><tr><td>L-B</td><td>LED Steady & Flashing with Buzzer</td></tr><tr><td>S-SD</td><td>Xenon Strobe</td></tr></table>					Light Style		L-F	LED Steady & Flashing	L-B	LED Steady & Flashing with Buzzer	S-SD	Xenon Strobe				
Light Style																
L-F	LED Steady & Flashing															
L-B	LED Steady & Flashing with Buzzer															
S-SD	Xenon Strobe															

Optional Orders

Pole Mount Adaptor



MAM-DS31



Pole Mounting Example

Wall Mount Brackets



MAM-DS30-BLK (Black)
MAM-DS30-BGE (Beige)



MAM-DS26

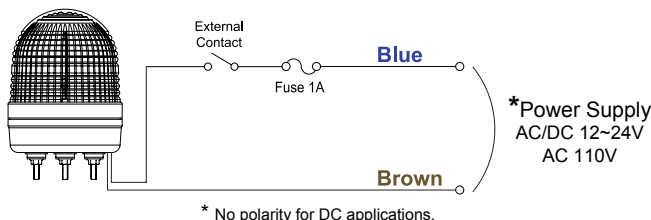
NOTE: See Page 13 & 14 for Mounting Options and Dimensions.

Replacement Parts

Xenon PCB Module	MS86S-LAMP-02	AC/DC 12~24V
	MS86S-LAMP-10	AC 110V
Lens	LENS-MS86-(□)	Dome Lens

(□): indicates color of Lens; R, Y, G, B or C

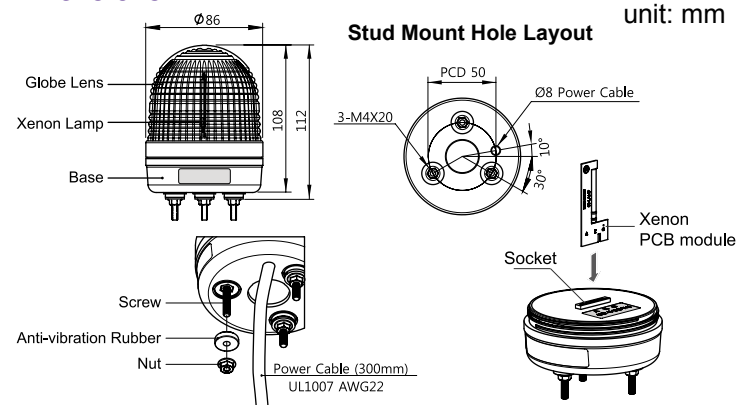
Wiring Diagram



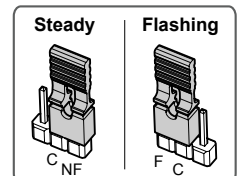
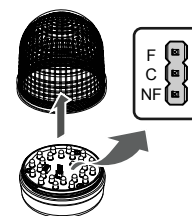
Specifications

Model	MS86L		MS86S	
Style	LED Steady/Flashing		Xenon Strobe	
Power Supply	AC/DC 24V	AC 110V	AC/DC 12-24V	AC 110V
Current Consumption	Red	120mA	200mA max. dash current: 600mA	220mA 6W
	Yellow	120mA		
	Green	140mA		
	Blue	140mA		
	Clear	140mA		
Flash (Strobe Pulse) Rate	80 time/minute ± 3%		60 times/minute ± 3%	
Sound Level	max. 85dB at 1m		—	
Dielectric Strength	500VAC for 1 min.			
Vibration	15~55 Hz; xyz/60min (70m/s ² , 7G)			
Insulation Resistance	1MΩ (at 500VDC mega)			
Ambient Temperature	-30~40°C		-20~70°C	
Storage Temperature	-25~85°C			
Ambient Humidity	45~85% RH			
Degree of Protection	IP65 (IP52 with Buzzer)		IP65	
Recommended Wire Size	PUR Ø5/PVC Ø5 2P/0.3SQ			
Weight	0.3kg ± 5%			

Dimensions



LED Light Steady/Flashing Selection



SIGNAL LIGHTS



- Incandescent or Xenon type
- Red, Yellow, Green and Blue lens available
- Smooth or Prism lens
- Stud or Pole mounted
- Wide range of power supply

Order Information

The diagram illustrates the components of a model number, represented as **ML - G - F - 012 - R**. Each component is linked to a specific table of options:

- ML (Mounting)**:

Mounting	
G	Stud Mount
P	Pole Mount
- G (Lens Color)**:

Lens Colors	
R	Red
Y	Yellow
G	Green
B	Blue
- F (Power Supply)**:

Power Supply	
012	DC 12V
024	DC 24V
110	AC 110V
220	AC 220V
- 012 (Light Style)**:

Light Style	
	Rotating Light
F	Flashing Light
S	Strobe Light with Xenon Bulb
- R (Mounting)**:

Mounting	
G	Stud Mount
P	Pole Mount

Additional notes from the diagram:

- A note "AC 110 or 220V Only ►" is associated with the Power Supply options.
- A note "AC 110 or 220V Only ►" is also present near the Mounting options.

Optional Orders

Replacement Parts

Bulb	MAB-T15-S-012-08	12V DC, 8 Watt
	MAB-T15-S-024-08	24V DC, 8 Watt
	MAB-T15-S-130-08	110V AC, 8 Watt
	MAB-T15-S-240-08	220V AC, 8 Watt
Xenon Bulb	MAB-STROBE-110-06	110/220V AC, 6 Watt
Lens	LENS-MLG-(□)	Smooth Lens for Rotating Lights
	LENS-MLGF/S-(□)	Prism Lens for Flashing/Strobe Lights

(□): indicates color of Lens; R, Y, G or B

Wall Mount Brackets



MAM-DS26

MAM-DS30-BLK (Black)

MAM-DS30-BGE (Beige)

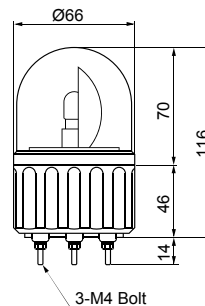
NOTE: See **Page 14** for Dimensions.

Specifications

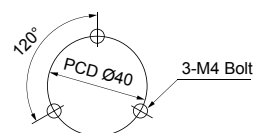
Model		MLG/MLP	MLGF/MLPF	MLGS/MLPS
Bulb Type		Incandescent		Xenon
Power Supply		12VDC, 24VDC, 110VAC, 220VAC		110VAC, 220VAC
Current Draw & Wattage	12VDC	0.7A, 8W		—
	24VDC	0.3A, 8W		—
	110VAC	0.7A, 8W		0.22A, 6W
	220VAC	0.03A, 8W		0.11A, 6W
Rotation Rate		130 times/minute	—	
Flashing rate		—	80 times/minute	

Dimensions

unit: mm



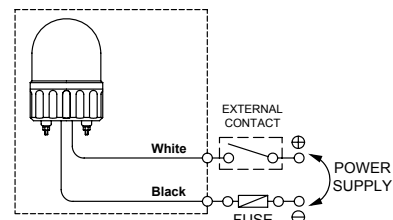
Stud Mount Hole Layout



Wiring Diagram

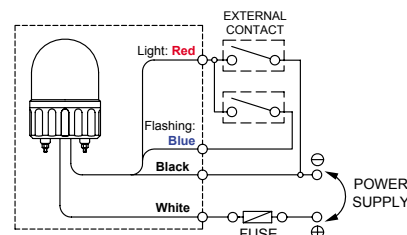
Rotating & Strobe Lights

MLG-□□□-□ MLGS-□□□-□
MLP-□□□-□ MLPS-□□□-□



Flashing Lights

MLGF-□□□-□ MLPF-□□□-□



ASG Ø86mm Rotating/Flashing/Strobe Beacons with Buzzer

SIGNAL LIGHTS



- Incandescent or Xenon type
- Red, Yellow, Green and Blue lens available
- Smooth lens
- Stud mounted
- Optional Wall Mounting Brackets available
- Wide range of power supply

Order Information

ASG **B** - **012** - **R**

Lens Colors	
R	Red
Y	Yellow
G	Green
B	Blue
Power Supply	
012	DC 12V
024	DC 24V
110&220	AC 110/220V
110	AC 110V
220	AC 220V
Light Style	
	Rotating Light
B	Rotating Light with Buzzer
F	Flashing Light
S	Strobe Light with Xenon Bulb

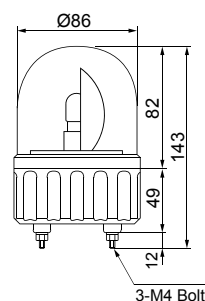
Strobe Light Only [

AC 110 or 220V Only ▶

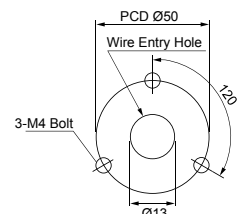
Specifications

Model	ASG/ASGB	ASGF	ASGS
Bulb Type	Incandescent		Xenon
Power Supply	12VDC, 24VDC, 110/220VAC		110VAC, 220VAC
Current Draw & Wattage	12VDC	0.7A, 8W	—
	24VDC	0.3A, 8W	—
	110/220VAC	0.03A, 5W	—
	110VAC	—	0.22A, 6W
	220VAC	—	0.11A, 6W
	Sound Level	80 dB	—
Rotation Rate	130 times/minute		—
Flashing rate	—		80 times/minute

Dimensions



unit: mm
Stud Mount Hole Layout



Optional Orders

Replacement Parts

Bulb	MAB-T15-S-012-08	12V DC, 8 Watt
	MAB-T15-S-024-08	24V DC, 8 Watt
	MAB-T15-S-012-05	110/220V AC, 5 Watt
Xenon Bulb	MAB-STROBE-110-06	110/220V AC, 6 Watt
Lens	LENS-ASG-(□)	Smooth Lens for Rotating Lights
	LENS-ASGF-(□)	Smooth Lens for Flashing/Strobe Lights

(□): indicates color of Lens; R, Y, G or B

Wall Mount Brackets



MAM-DS30-BLK (Black)
MAM-DS30-BGE (Beige)



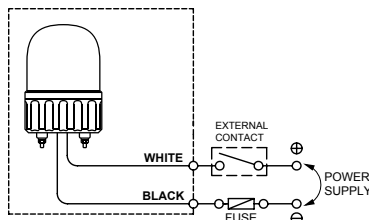
MAM-DS26

NOTE: See Page 14 for Dimensions.

Wiring Diagram

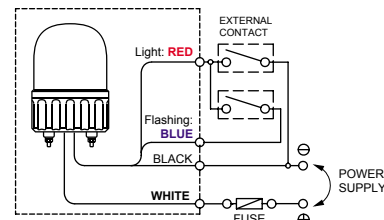
DC Rotating Lights

ASG-012-□ ASGB-012-□
ASG-024-□ ASGB-024-□



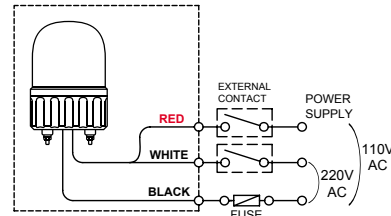
DC & AC Flashing Lights

ASGF-012-□ ASGF-110&220-□
ASGF-024-□



AC Rotating & Strobe Lights

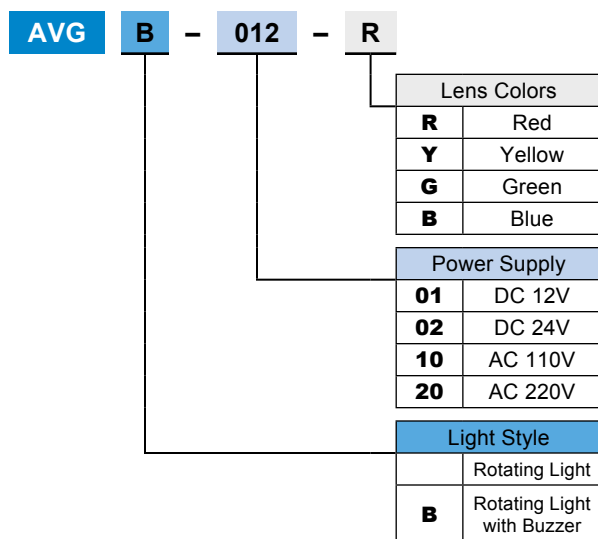
ASG-110&220-□ ASGS-110-□
ASGB-110&220-□ ASGS-220-□



Three LED navigation lights are shown side-by-side. From left to right, they are red, yellow, and green. Each light has a translucent, dome-shaped top and a white, cylindrical base. The red light is on the left, the yellow light is in the center, and the green light is on the right. Each light has four mounting screws at the base.

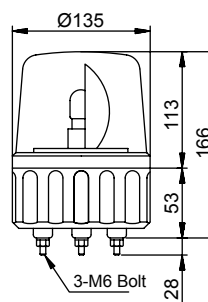
- Incandescent type
- Red, Yellow, Green and Blue lens available
- Smooth lens
- Large rotating reflector
- Long life
- Stud mounted
- Optional Wall Mounting Bracket (MAM-DS27) available
- Buzzer (80dB) model available

Specifications



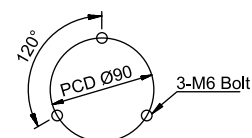
Model		AVG	AVGB
Bulb Type		Incandescent	
Power Supply		12VDC, 24VDC, 110VAC, 220VAC	
Current Draw & Wattage	12VDC	2.08A, 25W	
	24VDC	1.04A, 25W	
	110VAC	0.22A, 25W	
	220VAC	0.11A, 25W	
Sound Level		—	80 dB
Rotation Rate		150 times/minute	

Dimensions



unit: mm

Stud Mount Hole Layout



Optional Orders

Replacement Parts

Bulb	MAB-T15-D-012-25	12V DC, 25 Watt
	MAB-T15-D-024-25	24V DC, 25 Watt
	MAB-T15-D-130-25	110V AC, 25 Watt
	MAB-T15-D-240-25	220V AC, 25 Watt
Lens	LENS-AVG-(□)	Smooth Lens for Rotating Lights

(□): indicates color of Lens; R, Y, G or B

Wall Mount Brackets



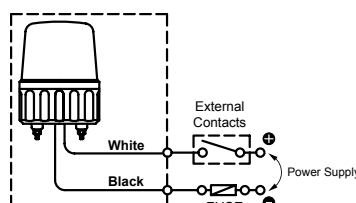
MAM-DS27

NOTE: See **Page 14** for Dimensions.

Wiring Diagram

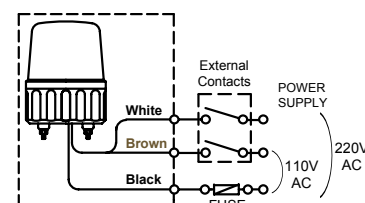
DC 12V & DC 24V

AVG-01-□ AVGB-01-□
AVG-02-□ AVGB-02-□



AC 110V & AC 220V

AVG-10-□ AVGB-10-□
AVG-20-□ AVGB-20-□



SIGNAL LIGHTS



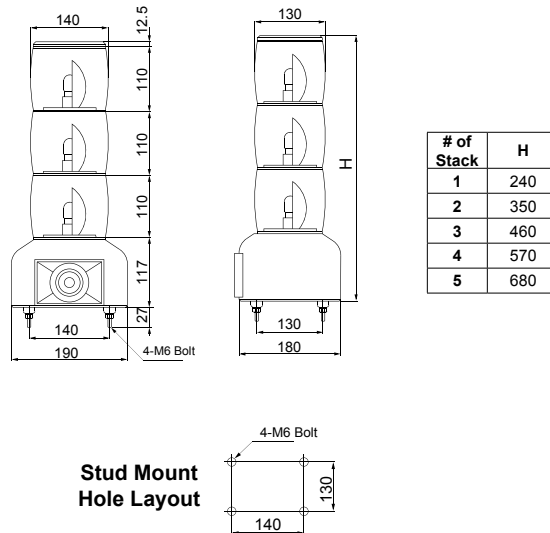
- Incandescent type
- Outstanding visibility by magnified lens
- Red, Yellow, Green, Blue or Clear lens available
- Large rotating reflector
- Selectable audio sounds: melody, two tone and siren (100dB)
- Stud mounted

Specifications

Model		MSGS	
Bulb Type		Incandescent	
Power Supply		12VDC, 24VDC, 110VAC, 220VAC	
Current Draw & Wattage	12VDC	2.08A, 25W	
	24VDC	1.04A, 25W	
	110VAC	2.08A, 25W	
	220VAC	2.08A, 25W	
Rotation Rate		150 times/minute	

Dimensions

unit: mm



Order Information

MSGS - **012** - **5** - **RYGBC**

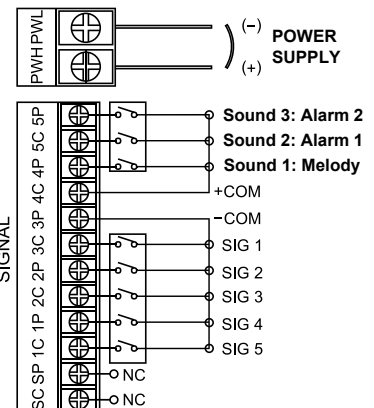
Lens Colors (top to bottom)	
R	Red
Y	Yellow
G	Green
B	Blue
C	Clear

Number of Stacks	
1	1 Light
2	2 Lights
3	3 Lights
4	4 Lights
5	5 Lights

Power Supply	
012	DC 12V
024	DC 24V
110	AC 110V
220	AC 220V

Wiring Diagram

Terminal Connections



Optional Orders

Replacement Parts

Bulb	MAB-T15-D-012-25	12V DC, 25 Watt
	MAB-T15-D-024-25	24V DC, 25 Watt
	MAB-T15-D-130-25	110V AC, 25 Watt
	MAB-T15-D-240-25	220V AC, 25 Watt
Lens	LENS-MSGS-(□)	Lens

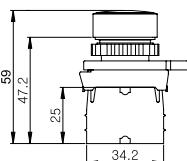
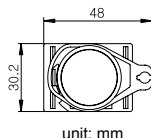
(□): indicates color of Lens; R, Y, G, B or C

*CAUTION: Do not operate more than one light at a time. It can cause over heat on transformers.

MC2 Ø22mm Push Buttons & Control Switches

Momentary Push Buttons

- Momentary Push
- Single Normally Open contact
- Flush Mount Accessory and Water Proof Protector available



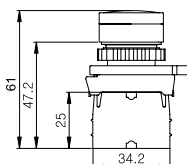
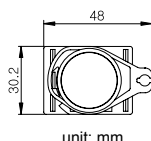
unit: mm

MC2 - **P** **R** - **A**

CONTACT BLOCK	
A	NO Contact
B	NC Contact
COLOR	
R	RED
Y	YELLOW
G	GREEN
B	BLUE
K	BLACK
STYLE	
P	Momentary Push Button

Illuminated Push Buttons

- Momentary Push
- Single Normally Open contact included
- AC/DC LED configuration in various colors
- Flush Mount Accessory and Water Proof Protector available



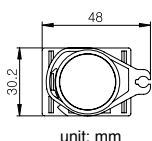
unit: mm

MC2 - **LPS** **R** - **A** **D**

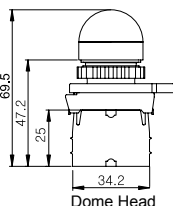
LED	
D	12~30V DC/AC LED
L	110~220V AC LED
CONTACT BLOCK	
A	NO Contact
B	NC Contact
COLOR	
R	RED
Y	YELLOW
G	GREEN
B	BLUE
C	CLEAR
STYLE	
LPS	Illuminated Push Button

Pilot Lamps

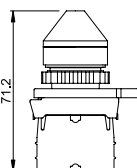
- LED illumination with clear visibility
- AC/DC LED configuration in various colors



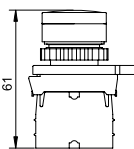
unit: mm



Dome Head



Horn Head



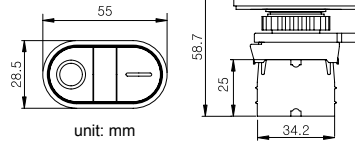
Flush Head

MC2 - **PI** **D** **R** - **D**

LED	
D	12~30V DC/AC LED
L	110~220V AC LED
COLOR	
R	RED
Y	YELLOW
G	GREEN
B	BLUE
C	CLEAR
HEAD STYLE	
D	Dome Head
H	Horn Head
F	Flush Head
STYLE	
PI	Pilot Lamp

Double Push Buttons

- Momentary Push
- Normally Open and Normally Closed contact blocks
- LED illumination

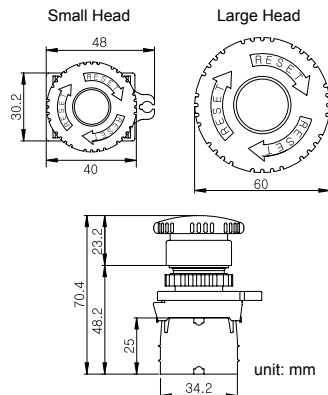


MC2 - **2P** **RG** - **AB** **D**

LED	
D	12~30V DC/AC LED
L	110~220V AC LED
CONTACT BLOCKS	
AB	1 NO Contact 1 NC Contact
COLOR	
RG	Red & Green
STYLE	
2P	Double Push Button

Emergency Stops

- Ø40 or Ø60mm Mushroom heads
- Push Lock & Twist-to-release
- Illuminated or non-illuminated styles
- UL, cUL, CE approved contact blocks

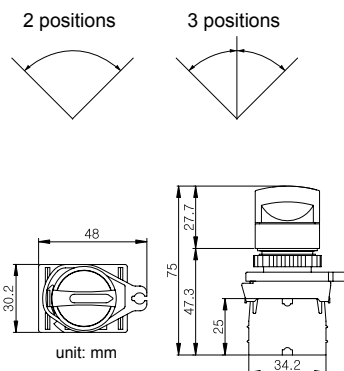


MC2 - **E** **S** **R** - **B** **D**

LED	
	Non-Illumination
D	12~30V DC/AC LED
L	110~220V AC LED
CONTACT BLOCK	
B	NC Contact
COLOR	
R	RED
HEAD	
S	Small Head (Ø40mm)
L	Large Head (Ø60mm)
STYLE	
E	Emergency Stop
LE	Illuminated Emergency Stop

Selector Switches

- Available in 2 or 3 position selection
- Fixed Position or Auto Spring Return Styles



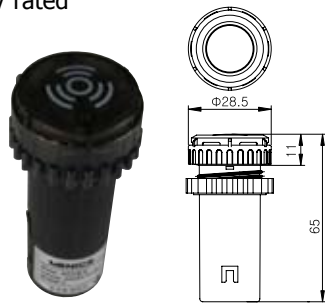
MC2 - **S** **S** **W2** **S** - **A**

CONTACT BLOCK	
A	2 Positions Single NO contact
AA	3 Positions Double NO contacts
Function	
S	Fixed Position
M	Auto Spring Return
Number of Positions	
W2	2 Positions 90°
W3	3 Positions 45°
Selector Head	
S	Knob
L	Lever
STYLE	
S	Selector Switch

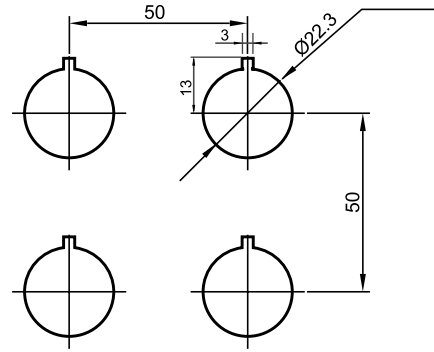
Buzzers

- Selectable Continuous and Intermittent Sound
- LED Illumination
- AC/DC 12~30V rated

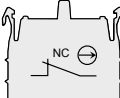
MC2-B-D



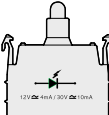
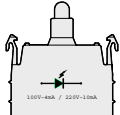
Ø22 Push Button Mounting Hole Layout & Panel Cutout



Contact Blocks

Model	NO Contact	MC22-UA	NC Contact	MC22-UB
Appearance				
Contact Capacity	110 VAC 10A / 220 VAC 5A			
Approval				

LEDs

Model	DC/AC LED	MC22-UA	AC LED	MC22-UB
Appearance				
Operating Voltage	DC/AC 12~30V		AC 110~220V	
Current Consumption	4~10mA		4~10mA	
LED Life	50,000 hours			
Approval				

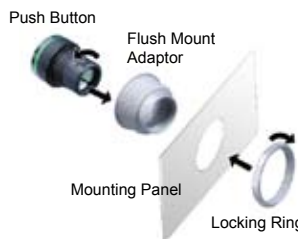
Specifications

Control Switches		Push Buttons	Illuminated Push Buttons	Pilot Lamps	Selector Switches	Emergency Stops	Double Push Buttons	Buzzer	
Model		MC2-P	MC2-LP	MC2-PI	MC2-S	MC2-E	MC2-2P	MC2-B-D	
Life	Mechanical	50,000 times (20 times/min)						Rated Voltage	AC/DC 12~30V
	Electrical	100,000 times (20 times/min)						Current	60mA
								Sound Level	85dB @ 0.1m 75dB @ 1m
Protection Degree		IP52					IP50	IP40	
Initial Contact Resistance		20MΩ maximum							
Insulation Resistance		Min.100MΩ						Min.50MΩ	
Operation Frequency		Max. 30 times/min						2~3 times/sec	
Impact	Endurance	Min. 500m/s ²							
	No movement	Min. 100m/s ²							
Vibration		10~55Hz with 3mm pick to pick							

Operating Temperature: -15~40 °C Operating Humidity: 45~85%RH Storage Temperature: -40~70 °C

Accessories

Flush Mount Adaptor



MC22-FP	MC22-FL
for Push Buttons MC2-P□-□	for Illuminated Push Buttons MC2-LP□-□□

Water Proof Cap



MW-25P	MW-25L
for Push Buttons MC2-P□-□	for Illuminated Push Buttons MC2-LP□-□□

E-Stop Accessories

Nameplates		Shroud		
MP-25-S	MP-25-L	MPC-KA-LD22	MPC-KA-LD25	MPC-KA-LD30
		Ø22mm	Ø25mm	Ø30mm

Locking Ring Wrench



MC-P100	

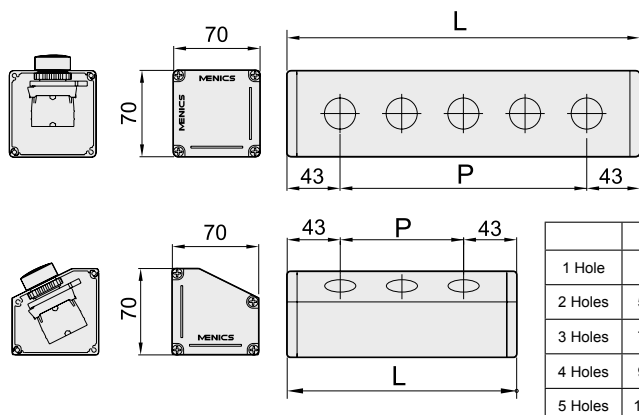
Switch Boxes

Aluminum Boxes



MB70 - **S** - **01**

NUMBER OF HOLES	
01	1 Hole
02	2 Holes
03	3 Holes
04	4 Holes
05	5 Holes
X	X Holes (optional)
BOX STYLE	
S	Square Side
T	Triangular Side



	L	P
1 Hole	3.4 in (86mm)	—
2 Holes	5.4 in (136mm)	2 in (50mm)
3 Holes	7.3 in (186mm)	3.9 in (100mm)
4 Holes	9.3 in (236mm)	5.9 in (150mm)
5 Holes	11.3 in (286mm)	7.9 in (200mm)

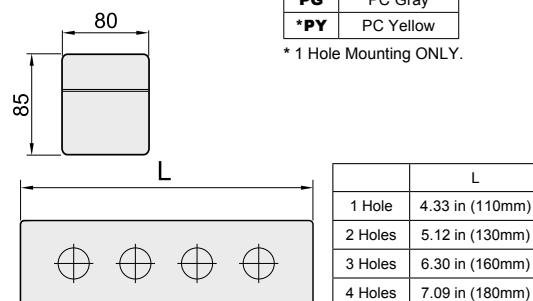
Plastic Boxes

IP 67 / NEMA 4x



BC - **AG** **S** - **01**

NUMBER OF HOLES	
01	1 Hole
02	2 Holes
03	3 Holes
04	4 Holes
BOX STYLE	
S	Screw Lock
BOX MATERIAL	
AG	ABS Gray
PG	PC Gray
*PY	PC Yellow



	L
1 Hole	4.33 in (110mm)
2 Holes	5.12 in (130mm)
3 Holes	6.30 in (160mm)
4 Holes	7.09 in (180mm)