ø8·10·12·16 AP Series Miniature Pilot Lights

Super Bright LEDs with built-in current-limiting resistor and reverse polarity protection diode

- Space saving miniature style
- Long life
- Illumination colors: amber, blue, green, pure white, red, white, and yellow (blue and pure white available for AP8M and AP1M only)
- Marking is available on flat lens units. (except AP8M series)
- Built-in protection diode ensures a reverse withstand voltage of 100V.
- UL recognized and CSA certified

AP6M Series

Dome Flat

AP2M Series

Dome Flat

AP1M Series

Dome Flat

AP8M Series

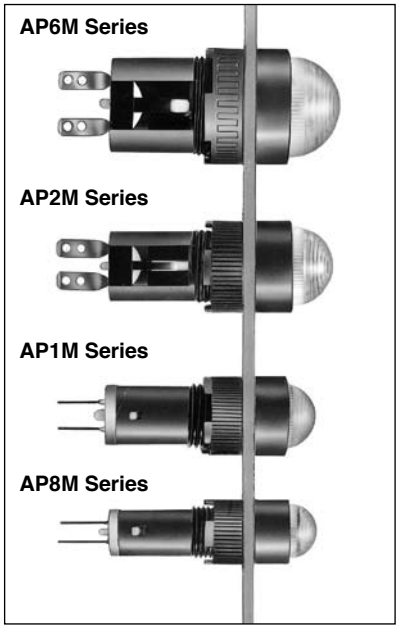
Dome Flat

AP6M Series

AC adapter unit
DC-DC converter unit
Flasher unit

AP2M Series

AC adapter unit
DC-DC converter unit



• Pilot Light

Input Type	Full voltage					
Operating Voltage	5V DC	6V DC	12V AC/DC	12V DC	24V AC/DC	24V DC
Rated Current	AP1M, AP8M: 9 mA (yellow: 15 mA)	AP6M, AP2M: 33 mA	AP1M, AP8M: 9 mA (yellow: 15 mA)	AP6M, AP2M: 22 mA	AP1M, AP8M: 9 mA (yellow: 15 mA)	AP6M, AP2M: 11 mA
Illumination Color Code	AP6M, AP2M: A (amber), G (green), R (red), Y (yellow), W (white) AP8M, AP1M: A (amber), G (green), PW (pure white), R (red), S (blue), Y (yellow), W (white)					
Operating Temperature	–20 to +55°C (no freezing)					
Operating Humidity	45 to 85% RH (no condensation)					
Insulation Resistance	Between live and dead parts: 100 MΩ minimum (500V DC megger)					
Dielectric Strength	Between live and dead parts: 1000V, 1 minute					
Reverse Withstand Voltage	100V		—	100V	—	100V
Solder Terminal	Soldering 350°C maximum (3 sec)					
Applicable Wire	ø1.0 or 0.75 mm² maximum (20 to 16 AWG)					
Weight (approx.)	AP6M: 7.5g AP2M: 4.5g AP1M: 2.5g AP8M: 2.0g					
Degree of Protection	AP6M, AP2M, AP1M: IP65 AP8M: IP40 (according to IEC 60529)					

• AC Adapter/DC-DC Converter (Option)

Unit	AC Adapter	DC-DC Converter
Applicable Unit	AP6M and AP2M (6V rating only)	
Operating Voltage	100/110V AC, 200/220V AC 50/60 Hz	110V DC (90 to 140V DC)
Power Consumption	1.6 VA maximum	1W maximum
Insulation Voltage	250V AC	140V DC
Insulation Resistance	Between live and dead parts: 100 MΩ minimum (500V DC megger)	
Dielectric Strength	Between live and dead parts: 2000V, 1 minute	
	Between I/O terminals: 2000V AC/, 1 minute	Between I/O terminals: 1500V AC, 1 minute
Terminal Style	M3 screw	
Weight (approx.)	38g	20g

• Flasher Unit (Option)

Applicable Unit	AP6M (12V and 24V DC rating only)
Operating Voltage	12/24V DC compatible ±10%
Flashing Period	Adjustable between approximately 30 to 600 cycles per minute (period 0.1 to 2 sec)
Current Draw	4 mA (OFF) to 6 mA (ON)
Terminal Style	M3 screw
Weight (approx.)	13.5g

AP6M Series (ø16)

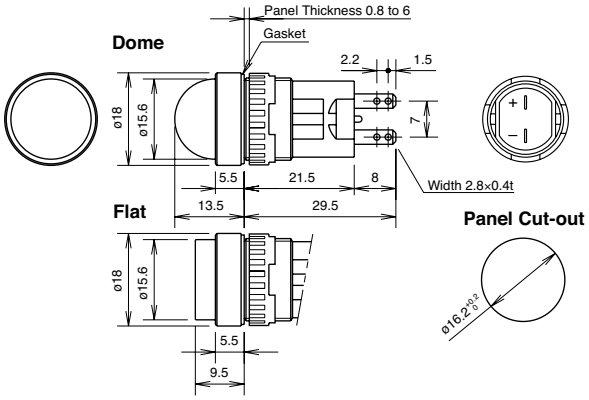
Shape	Operating Voltage	Type No.	Ordering Type No.	Package Quantity	Lens Color Code
Dome 	6V DC ±5%	AP6M266②	AP6M266②	1	Specify a lens color code in place of ② in the Type No. A: amber G: green R: red W: white Y: yellow
			AP6M266②PN10	10	
	12V DC ±10%	AP6M211②	AP6M211②	1	
			AP6M211②PN10	10	
	24V DC ±10%	AP6M222②	AP6M222②	1	
			AP6M222②PN10	10	
Flat (marking type) 	6V DC ±5%	AP6M166②	AP6M166②	1	
			AP6M166②PN10	10	
	12V DC ±10%	AP6M111②	AP6M111②	1	
			AP6M111②PN10	10	
	24V DC ±10%	AP6M122②	AP6M122②	1	
			AP6M122②PN10	10	

The LED cannot be removed. The lens can be removed and replaced.
• Degree of protection: IP65

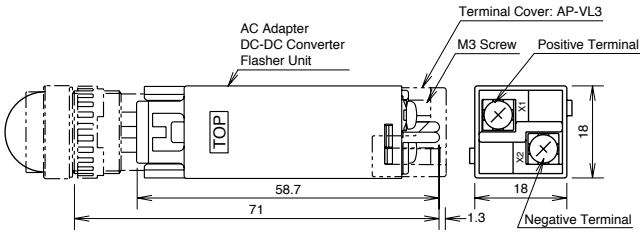
• AC Adapter, DC-DC Converter, Flasher Unit

Unit	Operating Voltage	Type No. (Ordering Type No.)	Applicable Pilot Light	Package Quantity
AC Adapter	100/110V AC	AP6-016D	AP6M266② (dome: 6V DC) AP6M166② (flat: 6V DC)	1
	200/220V AC	AP6-026D		
DC-DC Converter	110V DC (90 to 140V DC)	AP6-016DD		
Flasher Unit	12/24V DC	UZ6-F10	AP6M211② (dome: 12V DC) AP6M222② (dome: 24V DC) AP6M111② (flat: 12V DC) AP6M122② (flat: 24V DC)	

Dimensions / Panel Cut-out

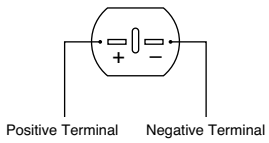


With AC Adapter, DC-DC Converter, or Flasher Unit

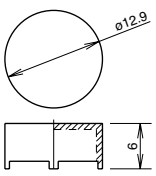


Terminal cover is not supplied.
When using terminal covers, order AP-VL3 terminal covers.

Terminal Arrangement (Bottom View)



Marking Plate



Engraving depth: 0.5 mm maximum
Marking plate material: White acrylic

All dimensions in mm.

AP2M Series (ø12)

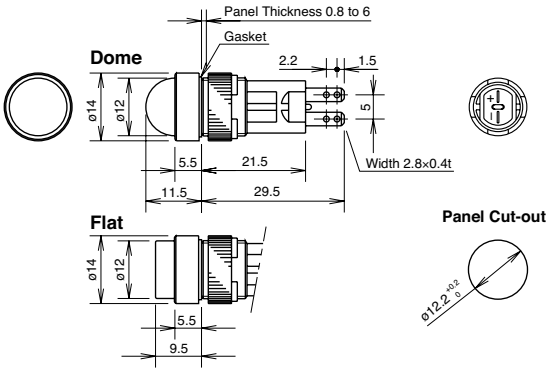
Shape	Operating Voltage	Type No.	Ordering Type No.	Package Quantity	Lens Color Code
Dome 	6V DC ±5%	AP2M266②	AP2M266②	1	Specify a lens color code in place of ② in the Type No. A: amber G: green R: red W: white Y: yellow
			AP2M266②PN10	10	
	12V DC ±10%	AP2M211②	AP2M211②	1	
			AP2M211②PN10	10	
	24V DC ±10%	AP2M222②	AP2M222②	1	
			AP2M222②PN10	10	
Flat (marking type) 	6V DC ±5%	AP2M166②	AP2M166②	1	
			AP2M166②PN10	10	
	12V DC ±10%	AP2M111②	AP2M111②	1	
			AP2M111②PN10	10	
	24V DC ±10%	AP2M122②	AP2M122②	1	
			AP2M122②PN10	10	

• The LED cannot be removed. The lens can be removed and replaced.
• Degree of protection: IP65

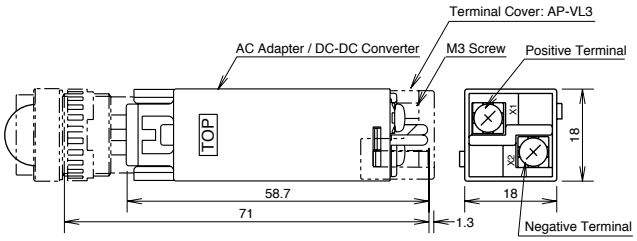
• AC Adapter, DC-DC Converter

Unit	Operating Voltage	Type No.	Applicable Pilot Light	Package Quantity
AC Adapter	100/110V AC	AP2-016D	AP6M266② (dome: 6V DC) AP6M166② (flat: 6V DC)	1
	200/220V AC	AP2-026D		
DC-DC Converter	110V DC (90 to 140V DC)	AP2-016DD		

Dimensions / Panel Cut-out

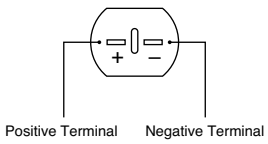


With AC Adapter or DC-DC Converter

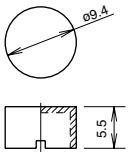


Terminal cover is not supplied.
When using terminal covers, order AP-VL3 terminal covers.

Terminal Arrangement (Bottom View)



Marking Plate



Engraving depth: 0.5 mm maximum
Marking plate material: White acrylic

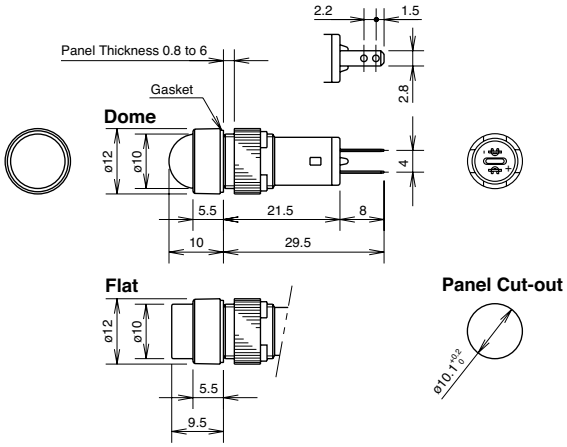
All dimensions in mm.

AP1M Series (ø10)

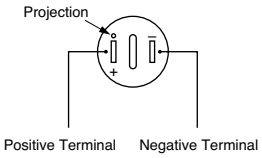
Shape	Operating Voltage	Type No.	Ordering Type No.	Package Quantity	Lens Color Code
Dome 	5V DC ±5%	AP1M255②	AP1M255②	1	Specify a lens color code in place of ② in the Type No. A: amber G: green PW: pure white R: red S: blue W: white Y: yellow
			AP1M255②PN10	10	
	12V AC/DC ±10%	AP1M211②	AP1M211②	1	
			AP1M211②PN10	10	
	24V AC/DC ±10%	AP1M222②	AP1M222②	1	
			AP1M222②PN10	10	
Flat (marking type) 	5V DC ±5%	AP1M155②	AP1M155②	1	
			AP1M155②PN10	10	
	12V AC/DC ±10%	AP1M111②	AP1M111②	1	
			AP1M111②PN10	10	
	24V AC/DC ±10%	AP1M122②	AP1M122②	1	
			AP1M122②PN10	10	

• The LED cannot be removed. The lens can be removed and replaced.
• Degree of protection: IP65

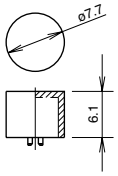
Dimensions / Panel Cut-out



Terminal Arrangement (Bottom View)



Marking Plate



Engraving depth: 0.5 mm maximum
Marking plate material: White acrylic

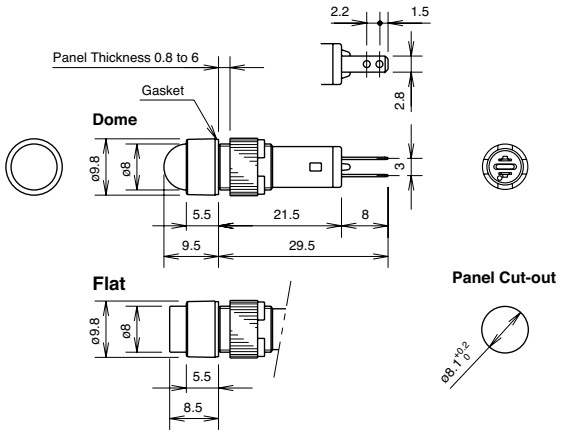
All dimensions in mm.

AP8M Series (ø8)

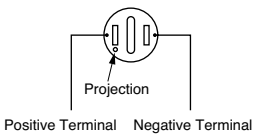
Shape	Operating Voltage	Type No.	Ordering Type No.	Package Quantity	Lens Color Code
Dome 	5V DC ±5%	AP8M255②	AP8M255②	1	Specify a lens color code in place of ② in the Type No. A: amber G: green PW: pure white R: red S: blue W: white Y: yellow
			AP8M255②PN10	10	
	12V AC/DC ±10%	AP8M211②	AP8M211②	1	
			AP8M211②PN10	10	
	24V AC/DC ±10%	AP8M222②	AP8M222②	1	
			AP8M222②PN10	10	
Flat 	5V DC ±5%	AP8M155②	AP8M155②	1	
			AP8M155②PN10	10	
	12V AC/DC ±10%	AP8M111②	AP8M111②	1	
			AP8M111②PN10	10	
	24V AC/DC ±10%	AP8M122②	AP8M122②	1	
			AP8M122②PN10	10	

• The lens or LED cannot be removed or replaced.
• Degree of protection: IP40

Dimensions / Panel Cut-out

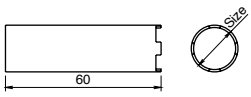
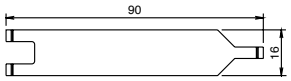
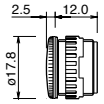
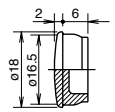
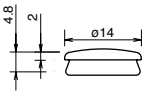
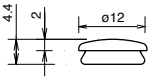
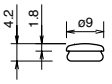


Terminal Arrangement (Bottom View)

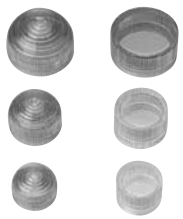
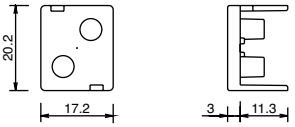


All dimensions in mm.

Accessories

Shape	Type	Material	Type No.	Ordering Type No.	Package Quantity	Remarks
Locking Ring Wrench 	ø16	Metal (nickel-plated brass)	MT-001	MT-001	1	• Used to tighten the locking ring when installing an AP unit onto an panel. • Tighten the locking ring using a recommended tightening torque.  Type No. / Size: MT-001 ø18; MT-002 ø14; MT-003 ø12; MT-004 ø9.5
	ø12		MT-002	MT-002	1	
	ø10		MT-003	MT-003	1	
	ø8		MT-004	MT-004	1	
Removal Tool 		Stainless steel	MT-100	MT-100	1	• Used to remove the AC adapter, DC-DC converter, or flasher unit. 
Mounting Hole Plug 	ø16	Metal (diecast) Locking ring (plastic)	AL-BM6	AL-BM6	1	• Degree of protection: IP65 
		Nitryl rubber (black)	AL-B6	AL-B6PN05	5	• Degree of protection: IP65 
	ø12	Nitryl rubber (black)	AL-B2	AL-B2PN05	5	• Degree of protection: IP65 
	ø10	Nitryl rubber (black)	AL-B1	AL-B1PN05	5	• Degree of protection: IP65 
	ø8	Nitryl rubber (black)	AL-B8	AL-B8PN05	5	• Degree of protection: IP65 

• Replacement Parts for AP6M/AP2M/AP1M

Shape	Type		Type No.	Ordering Type No.	Package Quantity	Lens Color Code
Lens 	AP6M	Dome lens	AP6M-L2②	AP6M-L2②PN05	5	A (amber), G (green), R (red), W (white), Y (yellow) (Note 1)
		Flat lens	AP6M-L1②	AP6M-L1②PN05	5	A (amber), C (clear), G (green), R (red), Y (yellow) (Note 2)
	AP2M	Dome lens	AP2M-L2②	AP2M-L2②PN05	5	A (amber), G (green), R (red), W (white), Y (yellow) (Note 1)
		Flat lens	AP2M-L1②	AP2M-L1②PN05	5	A (amber), C (clear), G (green), R (red), Y (yellow) (Note 2)
	AP1M	Dome lens	AP1M-L2②	AP1M-L2②PN05	5	A (amber), G (green), R (red), S (blue), W (white), Y (yellow) (Note 1)
		Flat lens	AP1M-L1②	AP1M-L1②PN05	5	A (amber), C (clear), G (green), R (red), S (blue), Y (yellow) (Note 2)
Marking Plate 	AP6M	Flat lens	AP6M-P1W	AP6M-P1WPN05	5	White
	AP2M		AP2M-P1W	AP2M-P1WPN05	5	
	AP1M		AP1M-PN1W	AP1M-PN1WPN05	5	
Diffusion Plate	AP1M	Dome lens	AP1M-PN2W	AP1M-PN2WPN05	5	White
Terminal Cover 	AP6M AP2M	AC adapter DC-DC converter Flasher unit	AP-VL3	AP-VL3	1	

Specify a lens color code in place of ② on the Ordering Type No.
Note 1: On the dome lens type, use a white (W) lens for white (W) illumination.
Note 2: On the flat lens type, use a clear (C) lens for white (W) illumination.

Safety Precautions

- Turn off power to the AP series pilot lights before installation, removal, wiring, maintenance, and inspection. Failure to turn power off may cause electrical shocks or fire hazard.
- For wiring, use wires of proper size to meet the voltage and current requirements. Improper wiring may cause overheating and create a fire hazard. Tighten the M3 terminal screws to a torque of 0.6 to 1.0 N·m. Failure to tighten terminal screws may cause overheating and fire.

Instructions

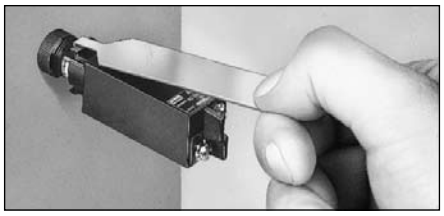
• Panel Mounting

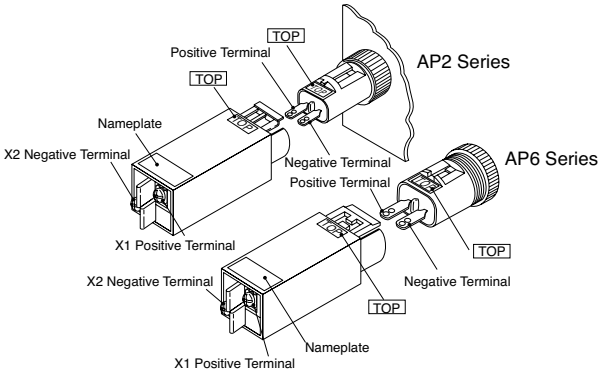
When mounting the AP series pilot lights on a panel, use the optional locking ring wrench. Do not use pliers. Excessive tightening will damage the locking ring.

Unit	Tightening Torque
AP6M	0.88 N·m
AP2M	0.78 N·m
AP1M	0.29 N·m
AP8M	0.29 N·m

• Installing the AC Adapter, DC-DC Converter, and Flasher Unit

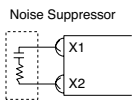
1. Make sure that the voltage rating and terminal style of the AP series pilot lights are applicable to the AC adapter, DC-DC converter, and flasher units.
2. Install the pilot light into a panel cut-out before mounting an AC adapter, DC-DC converter, or flasher unit. Note that the pilot light cannot be installed in a panel cut-out with an AC adapter, DC-DC converter, or flasher unit mounted.
3. When installing an AC adapter, DC-DC converter, or flasher unit, make sure that the TOP marking is on the same side as the TOP making of the pilot light. AC adapter, DC-DC converter, and flasher unit are snapped on to the back of the pilot light.
4. To remove the AC adapter or DC-DC converter, or flasher unit, insert the tip of the removal tool into the joint hook and pull towards you as shown in the photo below.





Note: Do not apply excessive force to terminals X1 and X2 during wiring.

5. When using an AC adapter or DC-DC converter, or flasher unit where the units are subjected to noise, connect a noise supressor across terminals X1 and X2 as shown in the diagram below.



• Wiring

1. Note the positive and negative polarities when wiring.
2. All DC type AP series pilot lights contain a diode for protection against reverse polarity and a current limiting resistor, eliminating the need for external resistors.
3. Solder the terminal at 350°C within 3 seconds using a 60W soldering iron. SnAgCu type lead-free solder is recommended. When soldering, do not touch the pilot light housing with the soldering iron. Also ensure that no tensile force is applied to the terminal. Do not bend the terminal or apply excessive force to the terminal.
   Use a non-corrosive rosin flux.

• Marking

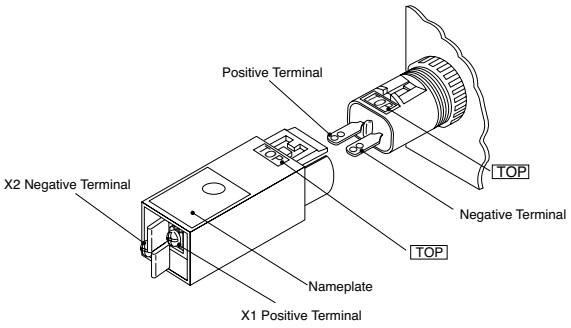
AP6M, AP2M, and AP1M round flat lenses contain a white marking plate inside the lens. (AP8M lens cannot be removed.)

• DC-DC Converter

DC-DC converters employ an electronic oscillating circuit. Oscillating sounds may be heard depending on operating conditions, but will not affect performance characteristics.

• Flasher Unit

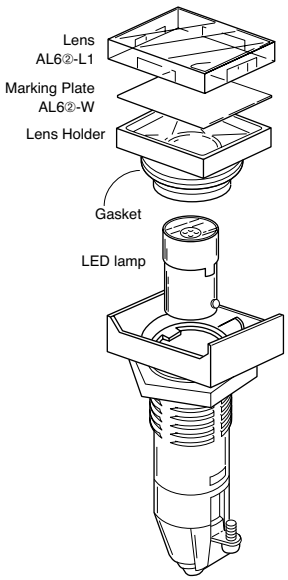
Pierce the round mark on the nameplate on top of the flasher unit with a flat screwdriver and adjust the variable resistor inside.Turn clockwise to lengthen the flashing period.



Note: Do not apply excessive force to terminals X1 and X2 during wiring.

Miniature Pilot Lights with Super Bright LEDs

- IDEC's LSTD LED lamps with BA9S base
- Six illumination colors: amber, green, red, blue, white, and yellow
- Screw terminal and solder/tab terminal available
- Degree of protection: IP65
- The current-limiting resistor in the LED lamp eliminates the need for external resistors



Specifications

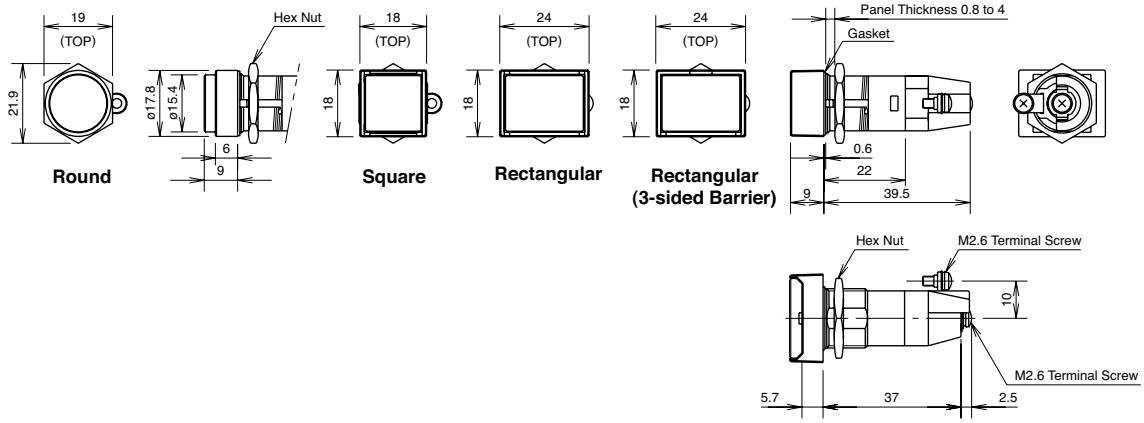
Illumination		LED			
Operating Voltage		6V AC/DC, 12V AC/DC, 24V AC/DC			
Lens Color Code		A (amber), G (green), R (red), S (blue), W (white), Y (yellow)			
Built-in LED Lamp		LSTD			
LED Lamp Type No.		LSTD-6②		LSTD-1②	LSTD-2②
Rated Voltage		6V AC/DC		12V AC/DC	24V AC/DC
Current Draw		A, R, W	G, S, PW	A, G, R, PW, S, W	
	AC	8 mA	8 mA	11 mA	10 mA
	DC	7 mA	5.5 mA	10 mA	11 mA
LED Lamp Color Code		A (amber), G (green), PW (pure white), R (red), S (blue), W (white)			
Operating Temperature		–20°C to +50°C (no freezing)			
Operating Humidity		45 to 85% RH (no condensation)			
Insulation Resistance		Between live and dead metal parts: 100mΩ minimum (500V DC megger)			
Dielectric Strength		Between live and dead metal parts: 2000V AC, 1 minute			
Terminal Style		Screw terminal: M2.6 Tab terminal: #110 solder/tab terminal (applicable cable: 1.25 mm² max.)			
Housing Material		Black plastic			
Degree of Protection		IP65 (waterproof/oiltight) (according to IEC 60529)			
Weight (approx.)		Terminal screw type: 18g Solder/tab screw type: 9g			

Types

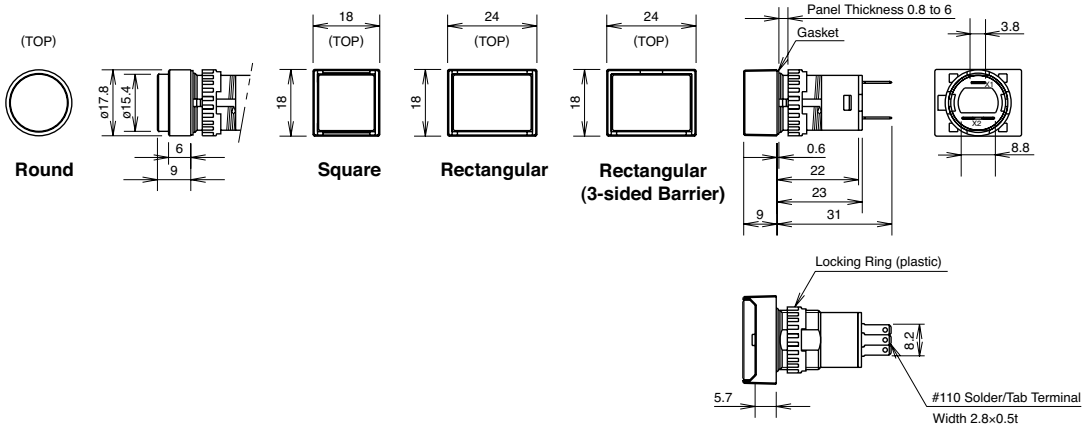
Shape	Terminal Style	Operating Voltage	Type No. (Ordering Type No.)	Lens Color Code	Built-in LED (Type No.)
Round 	Solder/Tab Terminal	6V AC/DC±5%	AP6MS52②	Specify a lens color code in place of ② in the Type No. A: amber G: green R: red S: blue W: white Y: yellow	LSTD-6②
		12V AC/DC±10%	AP6MS53②		LSTD-1②
		24V AC/DC±10%	AP6MS54②		LSTD-2②
	Screw Terminal	6V AC/DC±5%	AP6MS52M②		LSTD-6②
		12V AC/DC±10%	AP6MS53M②		LSTD-1②
		24V AC/DC±10%	AP6MS54M②		LSTD-2②
Square 	Solder/Tab Terminal	6V AC/DC±5%	AP6QS52②		LSTD-6②
		12V AC/DC±10%	AP6QS53②		LSTD-1②
		24V AC/DC±10%	AP6QS54②		LSTD-2②
	Screw Terminal	6V AC/DC±5%	AP6QS52M②		LSTD-6②
		12V AC/DC±10%	AP6QS53M②		LSTD-1②
		24V AC/DC±10%	AP6QS54M②		LSTD-2②
Rectangular 	Solder/Tab Terminal	6V AC/DC±5%	AP6HS52②		LSTD-6②
		12V AC/DC±10%	AP6HS53②		LSTD-1②
		24V AC/DC±10%	AP6HS54②		LSTD-2②
	Screw Terminal	6V AC/DC±5%	AP6HS52M②		LSTD-6②
		12V AC/DC±10%	AP6HS53M②		LSTD-1②
		24V AC/DC±10%	AP6HS54M②		LSTD-2②
Rectangular with 3-sided Barrier 	Solder/Tab Terminal	6V AC/DC±5%	AP6GS52②		LSTD-6②
		12V AC/DC±10%	AP6GS53②		LSTD-1②
		24V AC/DC±10%	AP6GS54②		LSTD-2②
	Screw Terminal	6V AC/DC±5%	AP6GS52M②		LSTD-6②
		12V AC/DC±10%	AP6GS53M②		LSTD-1②
		24V AC/DC±10%	AP6GS54M②		LSTD-2②

Dimensions

• Screw Terminal

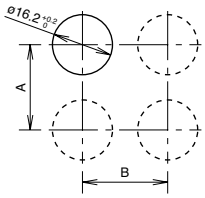


• Solder/Tab Screw Terminal



Mounting Hole Layout

All dimensions in mm.

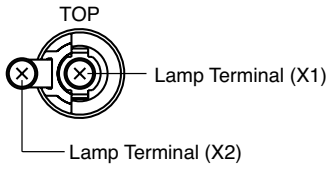


• Minimum Mounting Centers

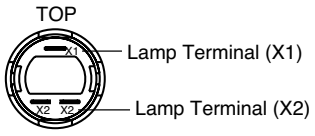
	A		B	
	Round/Square	Rectangular	Round/Square	Rectangular
Screw Terminal	23 mm	23 mm	23 mm	24 mm
Tab Terminal	18 mm	18 mm	18 mm	24 mm

Terminal Arrangement (Bottom View)

• Screw Terminal

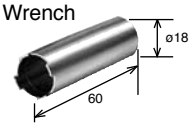
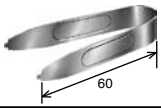


• Solder/Tab Terminal



Accessories

• Tools

Shape	Specification	Type No.	Ordering Type No.	Package Quantity	Remarks
Locking Ring Wrench 	Metal (nickel-plated brass)	MT-001	MT-001	1	Used to tighten the locking ring when installing an AP6S unit onto a panel.
Lamp Holder Tool 	Rubber	OR-55	OR-55	1	Used to install and remove LED lamps.
Lens Removal Tool 	Stainless Steel	MT-101	MT-101	1	Used to remove lens and buttons.

• Replacement Parts for AP6M/AP2M/AP1M

Shape		Type No.	Ordering Type No.	Package Quantity	Remarks
Lens 	Round	AL6M-L②	AL6M-L②PN05	5	Specify a color code in place of ② in the Ordering Type No. A: amber C: clear G: green R: red S: blue Y: yellow Use a clear lens for white illumination.
	Square	AL6Q-L②	AL6Q-L②PN05	5	
	Rectangular Rectangular with 3-sided Barrier	AL6H-L②	AL6H-L②PN05	5	
Marking Plate 	Round	AL6M-W	AL6M-WPN05	5	White
	Square	AL6Q-W	AL6Q-WPN05	5	
	Rectangular Rectangular with 3-sided Barrier	AL6H-W	AL6H-WPN05	5	

• LED Lamps

Operating Voltage	Current Draw AC	Current Draw DC	Type No.	Ordering Type No.	②Illumination Color Code	Package Quantity	Base
6V DC ±10%	8 mA	7 mA (A, R, W) 5.5 mA (G, PW, S)	LSTD-6②	LSTD-6②	Specify a color code in place of ② in the Ordering Type No. A: amber G: green PW: pure white R: red S: blue W: white Use a pure white (PW) LED lamp with yellow (Y) lens.	1	BA9S/13
				LSTD-6②PN10		10	
12V AC/DC ±10%	11 mA	10 mA	LSTD-1②	LSTD-1②		1	
				LSTD-1②PN10		10	
24V AC/DC ±10%	11 mA	10 mA	LSTD-2②	LSTD-2②		1	
				LSTD-2②PN10		10	

Safety Precautions

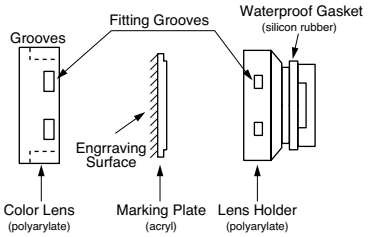
- Turn off power to the AP6S series units before installation, removal, wiring, maintenance, and inspection. Failure to turn power off may cause electrical shocks or fire hazard.
- For wiring, use wires of proper size to meet the voltage and current requirements. Improper soldering may cause overheating and create fire hazards.

Instructions

Replacing Lens and Marking Plate

• Removal

Remove the operator (color lens, marking plate, and lens holder) by holding the color lens recesses with the Lens Removal Tool (MT-101) and pulling it out. Remove the marking plate by disengaging the latches between the color lens and lens holder. The marking plate must be engraved on the front side as shown below.



• Installation

Place the marking plate on the lens holder in the correct direction and press the color lens onto the lens holder to engage the latches. Insert the lens holder into the housing in the correct direction.

Marking Plate and Engraving Area

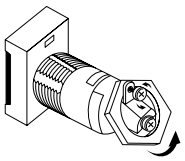
Engraving must be made on the engraving area less than 0.5mm deep.

Shape	Size	Engraving Area
Round	ø13.8 mm	ø12 mm
Square	13.8 mm	□12 mm
Rectangular	13.8×19.8 mm	12×18 mm

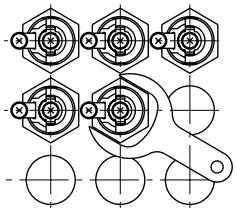
Notes on Mounting

• Screw Terminal

- Because screw terminal types use hexagonal nuts, they cannot be mounted closely together. However, rectangular units can be mounted closely when installed horizontally.
- When removing the hexagonal nuts, loosen the the terminal screws. The hexagonal nuts cannot be removed when the terminal screws are tightened.



- When mounting the pilot lights collectively, note the mounting order. Pilot lights mounted in between units cannot be removed.



• Tab Terminal

The locking ring is plastic. To tighten the ring, use an optional locking ring wrench (MT-001). Do not use pliers. Do not tighten with excessive force, otherwise the locking ring will be damaged. Tightening torque should not exceed 0.88 N·m

• Collective Mounting and Continous Illumination

Collective mounting or continuous illumination of pilot lights may cause the ambient temperature to rise above the rated operating temperature. Make sure to provide efficient ventilation when the mounting panel is not metallic or when the pilot lights are mounted collectively.

Wiring

Solder the terminal at 350°C within 3 seconds using a 60W soldering iron. SnAgCu type lead-free solder is recommended. When soldering, do not touch the pilot light housing with the soldering iron. Also ensure that no tensile force is applied to the terminal. Do not bend the terminal or apply excessive force to the terminal.

Power Supply for LED Lamps

The operating voltage of the LED lamp is within ±5% or ±10% of the rated voltage. Make sure that the power voltage is within this range.

Transformer

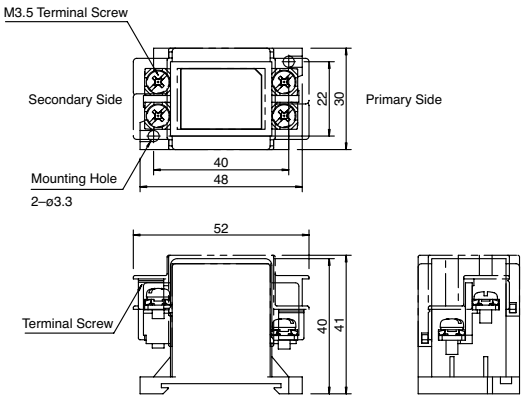
Separate Mounting Type	Primary Voltage	Secondary Voltage	Type No. (Ordering Type No.)	Applicable LED Lamp
For 24V 	100/110V AC	24V AC, 0.5W	TWR512	LSTD-2②
	200/220V AC	24V AC, 0.5W	TWR522	
	400/440V AC	24V AC, 0.5W	TWR542	

• A dust cover is supplied with the separate mounting type transformer.
• Connect only one LSTD LED lamp to the separate mounting type transformer.
• Use plastic mounting clip BC9Z-E/NS35N when mounting 400/440V voltage models.

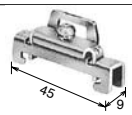
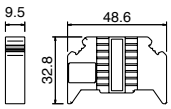
Specifications

Operating Voltage	100/110V AC, 200/220V AC 400/440V AC (50/60 Hz)
Power Consumption	2.4 VA
Rated Insulation Voltage	600V
Insulation Resistance	100 MΩ minimum (500V DC megger)
Operating Temperature	–30 to +60°C (no freezing)
Relative Humidity	35 to 85% (no condensation)
Vibration Resistance	Operating extremes: 5 to 55 Hz, amplitude 0.5 mm
Shock Resistance	Damage limits: 1,000 m/s^2
Dielectric Strength	2,500V AC, 1 minute
Terminal Style	M3.5
Applicable Wire	2 mm^2 maximum, 2 wires maximum

Dimensions



Accessories

Description	Appearance	Description	Type No.	Ordering Type No.	Package Quantity
DIN Rail		Aluminum Weight: Approx. 200g Length: 1m	BAA1000	BAA1000PN10	10
		Steel Weight: Approx. 320g Length: 1m	BAP1000	BAP1000PN10	
Mounting Clip		Steel Weight: Approx.15g	BNL6	BNL6PN10	
		Plastic Weight: Approx.15g	BC9Z-E/NS35N	BC9Z-E/NS35NPN10	

• Use plastic mounting clip BC9Z/NS35N when using 400/440V AC voltage transformers.