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.
- Illumination colors: amber, blue, green, pure white, red, 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.

- See website for details on approvals and standards.

AP2M
AC adapter unit

AP6M
AC adapter unit
Flasher unit

Pilot Light

Input Type		Full voltage					
Model		AP2M / AP6M			AP8M / AP1M		
Rated Voltage		6V DC	12V DC	24V DC	5V DC	12V AC/DC	24V AC/DC
Voltage Range	Colors except Y	6V DC±5%	12V DC±10%	24V DC±10%	5V DC±10%	12 AC/DC±10%	24V AC/DC±10%
	Y only	6V AC/DC±5%	12V AC/DC±10%	24V AC/DC±10%			
Rated Current	Colors except Y	33mA	22mA	11mA	9mA (A, G, R), 7mA (PW, S)		
	Y only	9mA	11mA	11mA	7mA		
Illumination Color Code		A (amber), G (green), R (red), Y (yellow)			A (amber), G (green), PW (pure white), R (red), S (blue), Y (yellow)		
Operating Temperature		–20 to +55°C (no freezing)					
Storage Temperature		–30 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 (AP2M, AP6M), 200V (AP8M, AP1M)					
Solder Terminal		Soldering 350°C maximum (3 sec)					
Applicable Wire		ø1.0 or 0.75 mm^2 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)	
Rated Voltage	100/110V AC, 200/220V AC 50/60 Hz	110V DC
Voltage Range	100/110V AC±10% 200/220V AC±10%	90 to 140V
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)
Rated Voltage	12/24V DC compatible
Voltage Range	12/24V DC±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	Part No.	Ordering No.	Package Quantity	Lens Color Code
Dome 	6V DC	AP6M266②	AP6M266②	1	Specify a lens color code in place of ② in the Part No. A: amber G: green R: red Y: yellow
			AP6M266②PN10	10	
	12V DC	AP6M211②	AP6M211②	1	
			AP6M211②PN10	10	
	24V DC	AP6M222②	AP6M222②	1	
			AP6M222②PN10	10	
Flat (marking) 	6V DC	AP6M166②	AP6M166②	1	
			AP6M166②PN10	10	
	12V DC	AP6M111②	AP6M111②	1	
			AP6M111②PN10	10	
	24V DC	AP6M122②	AP6M122②	1	
			AP6M122②PN10	10	

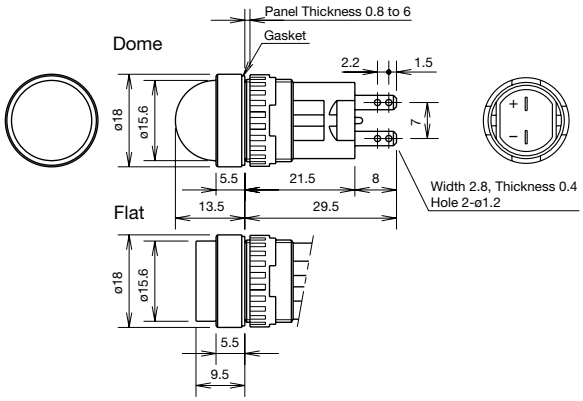
- Degree of protection: IP65 (IEC 60529)
- The LED cannot be replaced.

Note: The voltage for Y (yellow) is 24V AC/DC.

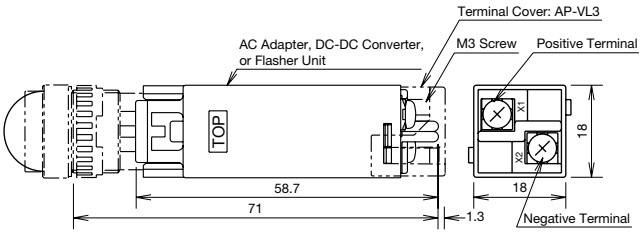
AC Adapter, DC-DC Converter, Flasher Unit

Unit	Operating Voltage	Part 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



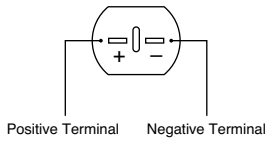
With AC Adapter, DC-DC Converter, Flasher Unit



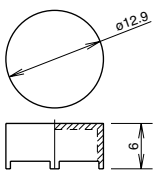
Terminal cover is not supplied.
When using terminal covers, order AP-VL3 terminal covers.

Terminal Arrangement

(Bottom View)

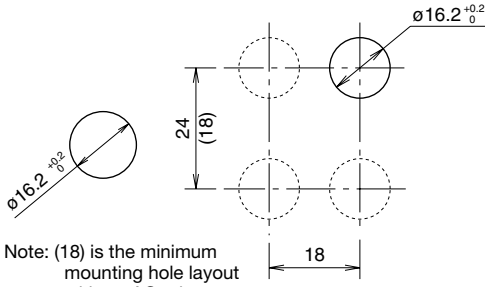


Marking Plate



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

Panel Cut-out / Mounting Hole Layout



Note: (18) is the minimum mounting hole layout without AC adapter or flasher unit.

All dimensions in mm.

AP2M Series (ø12)

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

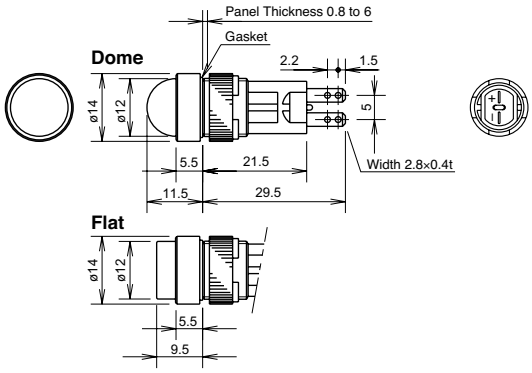
- Degree of protection: IP65 (IEC 60529)
- The LED cannot be replaced.

Note: The voltage for Y (yellow) is 24V AC/DC.

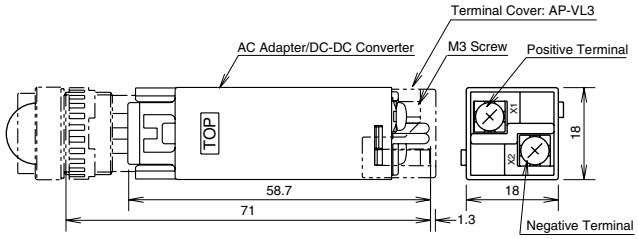
AC Adapter, DC-DC Converter

Unit	Operating Voltage	Part 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



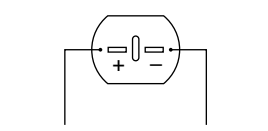
With AC Adapter or DC-DC Converter



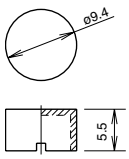
Terminal cover is not supplied.
When using terminal covers, order AP-VL3 terminal covers.

Terminal Arrangement

(Bottom View)

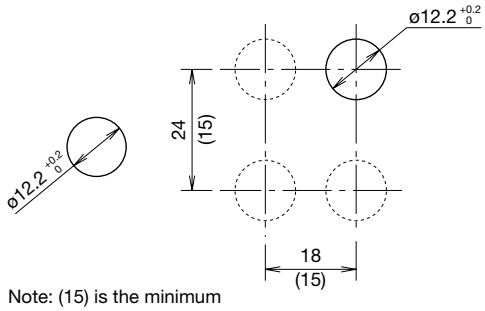


Marking Plate



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

Panel Cut-out / Mounting Hole Layout



Note: (15) is the minimum mounting hole layout without AC adapter or flasher unit.

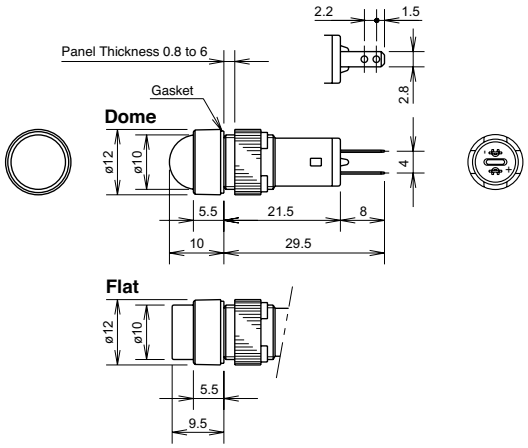
All dimensions in mm.

AP1M Series (ø10)

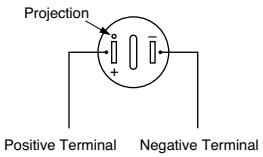
Shape	Operating Voltage	Part No.	Ordering No.	Package Quantity	Lens Color Code
Dome 	5V DC ±5%	AP1M255②	AP1M255②	1	Specify a lens color code in place of ② in the Part No. A: amber G: green PW: pure white R: red S: blue Y: yellow
			AP1M255②PN10	10	
	12V AC/DC ±10%	AP1M211②	AP1M211②	1	
			AP1M211②PN10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

- Degree of protection: IP65 (IEC 60529)
- The LED cannot be replaced.
- Separate transformer (TWR512, TWR522, TWR542) can be used for 24V AC/DC pilot lights.

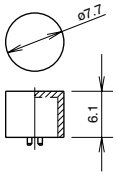
Dimensions



Terminal Arrangement (Bottom View)

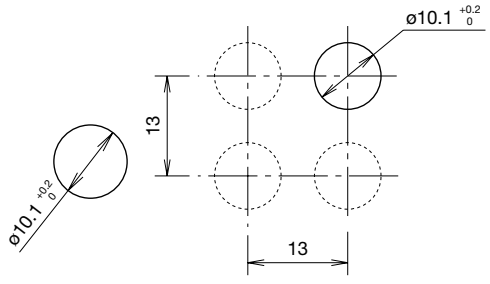


Marking Plate



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

Panel Cut-out / Mounting Hole Layout



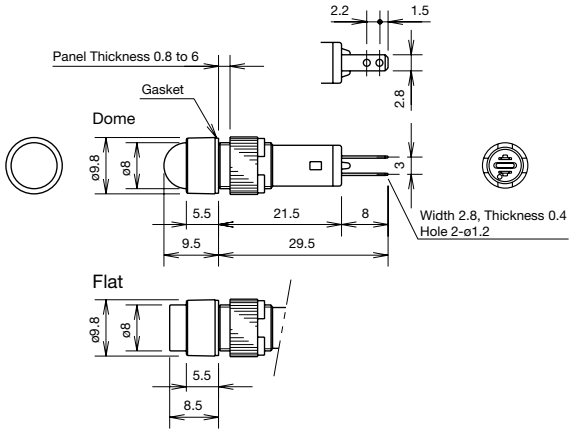
All dimensions in mm.

AP8M Series (ø8)

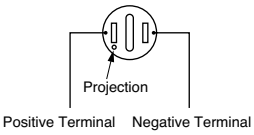
Shape	Operating Voltage	Part No.	Ordering No.	Package Quantity	Lens Color Code
Dome 	5V DC ±5%	AP8M255②	AP8M255②	1	Specify a lens color code in place of ② in the Part No. A: amber G: green PW: pure white R: red S: blue Y: yellow
			AP8M255②PN10	10	
	12V AC/DC ±10%	AP8M211②	AP8M211②	1	
			AP8M211②PN10	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 (IEC 60529)
- Separate transformer (TWR512, TWR522, TWR542) can be used for 24V AC/DC pilot lights.

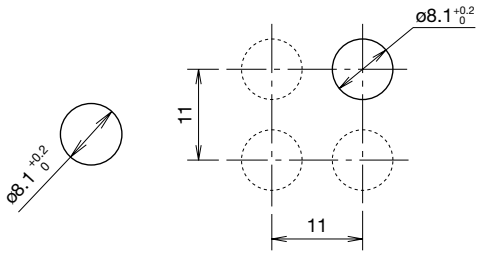
Dimensions



Terminal Arrangement (Bottom View)

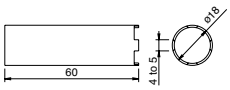
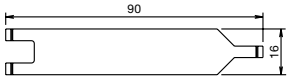
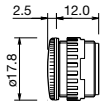
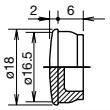
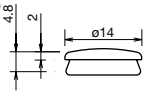
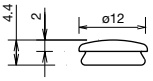
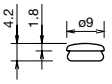


Panel Cut-out / Mounting Hole Layout

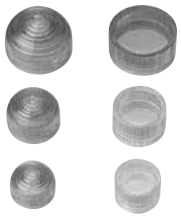
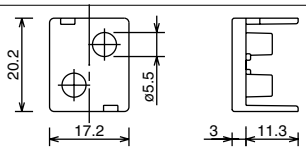


All dimensions in mm.

Accessories

Shape	For	Material	Part No.	Ordering 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.  Part 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 (polyacetal)	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	For		Part No.	Ordering 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 in the Ordering No.

Note 1: On the dome lens, use a white (W) lens for pure white P(W) illumination.
Note 2: On the flat lens, use a clear (C) lens for pure white (PW) 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

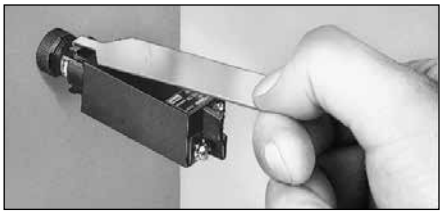
Panel Mounting

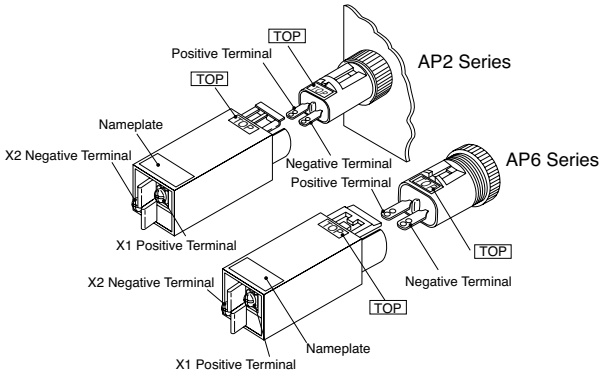
When mounting the AP series pilot lights on a panel, use the optional locking ring wrench. Do not use pliers. Excessive tightening will damage the locking ring.

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

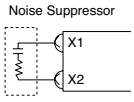
1. Make sure that the voltage rating and terminal style of the AP series pilot lights are applicable to the AC adapter, DC-DC Converter, and flasher units.
2. Install the pilot light into a panel cut-out before mounting an AC adapter, DC-DC Converter, or flasher unit. Note that the pilot light cannot 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, 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, DC-DC Converter, or flasher unit where the units are subjected to noise, connect a noise suppressor 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.

DC-DC Converter

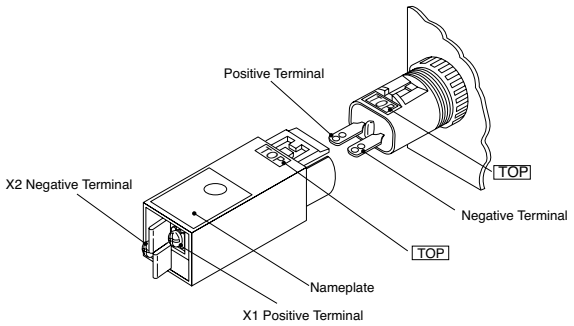
DC-DC converters employ an electronic oscillating circuit. Oscillating sounds may be heard depending on operating conditions, but will not affect performance characteristics.

Marking

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

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.

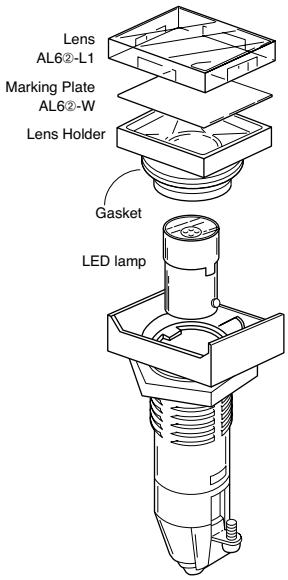


Note: Do not apply excessive force to terminals X1 and X2 during wiring.

ø16 AP6S Series Miniature Pilot Lights

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

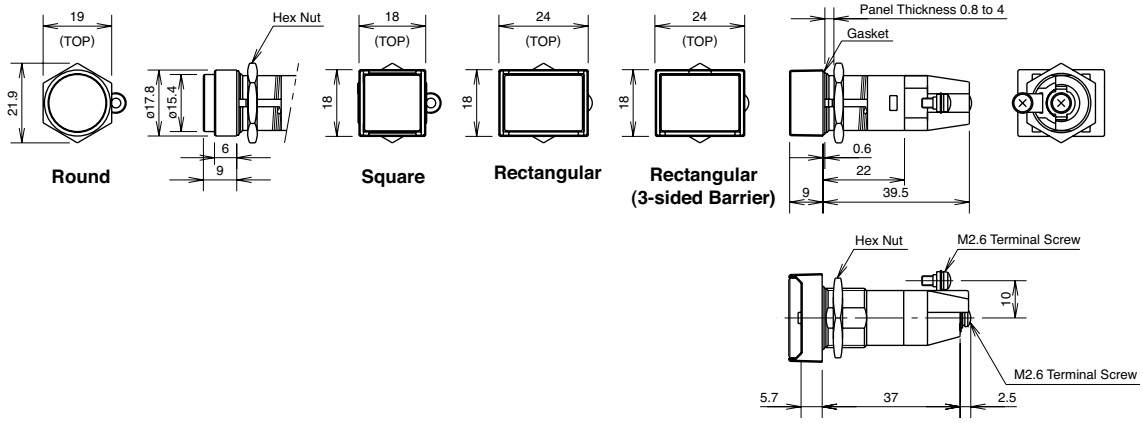
Illumination	LED		
Rated Voltage	6V AC/DC	12V AC/DC	24V AC/DC
Voltage Range	6V AC/DC±10%	12V AC/DC±10%	24V AC/DC±10%
LED Lamp Part No.	LSTD-6②	LSTD-1②	LSTD-2②
LED Life	50,000 hours approx.		
Operating Temperature	–20°C to +50°C (no freezing)		
Storage Temperature	–30°C to +80°C (no freezing)		
Operating 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 (IEC 60529)		
Weight (approx.)	Terminal screw type: 18g Solder/tab screw type: 9g		

- Specify a color code in place of ② in the LED Lamp Part No.
  A (amber), G (green), PW (pure white), R (red), S (blue), Y (yellow)

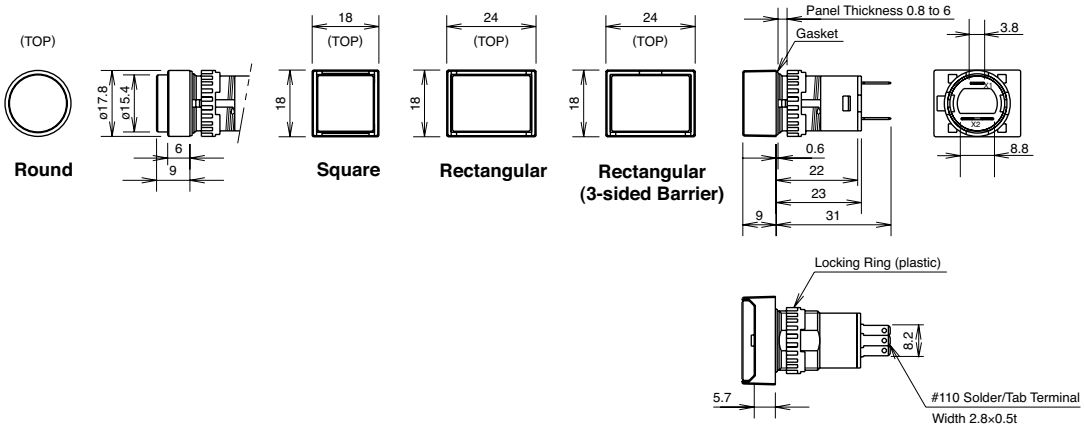
Shape	Terminal Style	Operating Voltage	Part No.	Lens Color Code	Built-in LED (Part No.)
Round 	Solder/Tab Terminal	6V AC/DC±5%	**AP6MS52②**	Specify a lens color code in place of ② in the Part No. A: amber G: green PW: pure white R: red S: blue Y: yellow	**LSTD-6②**
		12V AC/DC±10%	**AP6MS53②**		**LSTD-1②**
		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

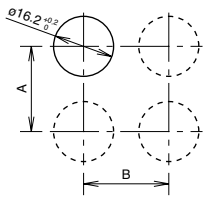


Solder/Tab Screw Terminal



Mounting Hole Layout

All dimensions in mm.

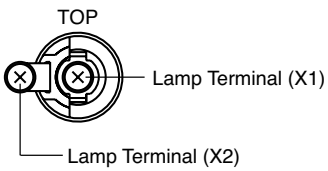


Minimum Mounting Centers

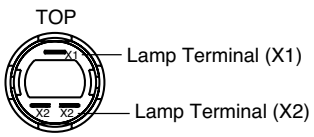
	A		B	
	Round/Square	Rectangular	Round/Square	Rectangular
Screw Terminal	23 mm	23 mm	23 mm	24 mm
Tab Terminal	18 mm	18 mm	18 mm	24 mm

Terminal Arrangement (Bottom View)

Screw Terminal

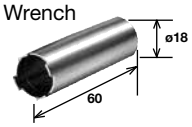
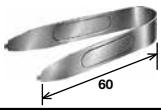


Solder/Tab Terminal



Accessories

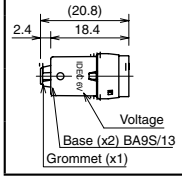
Tools

Shape	Specification	Part No.	Ordering 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 	Nitryl 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		Part No.	Ordering No.	Package Quantity	Remarks
Lens 	Round	**AL6M-L②**	**AL6M-L②PN05**	5	Specify a color code in place of ② in the Ordering No. A: amber C: clear G: green R: red S: blue Y: yellow Use a clear lens for pure 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

Dimensions	Operating Voltage	Current Draw AC	Current Draw DC	Part No.	Ordering No.	②Illumination Color Code	Package Quantity	Base
 	6V DC ±10%	8 mA	7 mA (A, R) 5.5 mA (G, PW, S)	**LSTD-6②**	**LSTD-6②**	Specify a color code in place of ② in the Ordering No. A: amber G: green PW: pure white R: red S: blue 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	

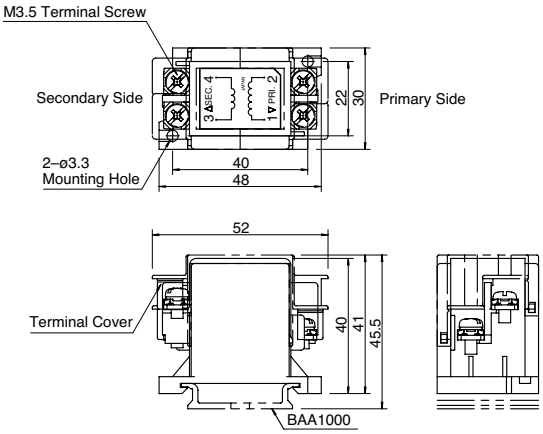
Transformer

Shape	Primary Voltage	Secondary Voltage	Part No.	Applicable Load
Din Rail Mount Transformer For 6V 	100/110V AC	5.5V AC, 1W	**TWR516**	LSTD-6 LED lamp (6V AC/DC) or LS-6 incandescent lamp (6V AC/DC, 1W)
	115/120V AC		**TWR5126**	
	200/220V AC		**TWR526**	
	230/240V AC		**TWR5246**	
	380V AC		**TWR5386**	
	400/440V AC		**TWR546**	
	480V AC		**TWR5486**	

Specifications

Operating Voltage	100/110V AC, 115/120V AC, 200/220V AC, 230/240V AC, 380V AC, 400/440V AC, 480V AC (50/60Hz)
Current Draw	2.4 VA
Rated Insulation Voltage	600V
Insulation Resistance	100 MΩ minimum (500V DC megger)
Operating Temperature	–30 to +60°C (no freezing)
Storage Temperature	–40 to +80°C (no freezing)
Operating Humidity	35 to 85% RH (no condensation)
Vibration Resistance	Damage Limits: 30 Hz, amplitude 1.5 mm Operating extremes: 5 to 55 Hz, amplitude 0.5 mm
Shock Resistance	Damage limits: 1,000 m/s^2 Operating Extremes: 100 m/s^2
Dielectric Strength	2,500V AC, 1 minute
Terminal Screw	M3.5
Applicable Wire	2 mm^2 maximum, 2 wires maximum
Weight (approx.)	87g

Dimensions

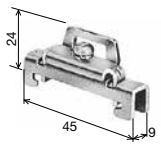


Accessories

DIN Rail

Part No.	Ordering No.	Length	Weight (approx.)	Material	Package Quantity
BAA1000	**BAA1000PN10**	1000 mm	200g	Aluminum	10

End Clip

Part No.	Ordering No.	Applicable DIN Rail	Weight (approx.)	Material	Package Quantity	Dimensions
BNL6	**BNL6PN10**	**BAA1000** **BAP1000**	15g	Steel (Zinc-plated)	10	

Safety Precautions

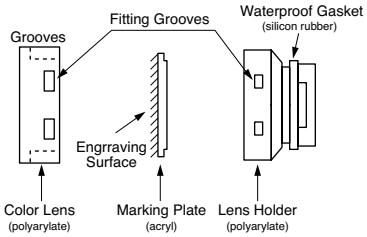
- Turn off power to the AP6S series units before installation, removal, wiring, maintenance, and inspection. Failure to turn power off may cause electrical shocks or fire hazard.
- For wiring, use wires of proper size to meet the voltage and current requirements. Improper soldering may cause overheating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

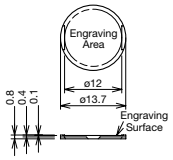
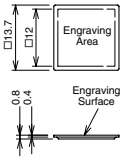
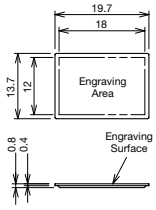
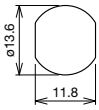
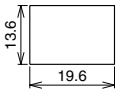


Installation

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

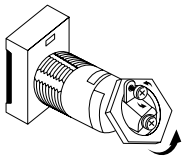
Engraving must be made on the engraving area less than 0.5mm deep.

Lens	Round	Square	Rectangular
Built-in Marking Plate			
	• Engraving must be made on the engraving area within 0.5mm deep. • The marking plate is made of white acrylic resin.		
Applicable Marking Film			
	*Thickness = 0.1 mm × 1 pc • Marking film is not supplied. • Recommended marking film: Polyester film		

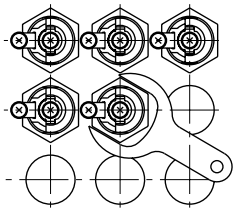
Notes on Mounting

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.

Ordering Terms and Conditions

Thank you for using IDEC Products.

By purchasing products listed in our catalogs, datasheets, and the like (hereinafter referred to as "Catalogs") you agree to be bound by these terms and conditions. Please read and agree to the terms and conditions before placing your order.

1. Notes on contents of Catalogs

(1) Rated values, performance values, and specification values of IDEC products listed in this Catalog are values acquired under respective conditions in independent testing, and do not guarantee values gained in combined conditions.
Also, durability varies depending on the usage environment and usage conditions.

(2) Reference data and reference values listed in Catalogs are for reference purposes only, and do not guarantee that the product will always operate appropriately in that range.

(3) The specifications / appearance and accessories of IDEC products listed in Catalogs are subject to change or termination of sales without notice, for improvement or other reasons.

(4) The content of Catalogs is subject to change without notice.

2. Note on applications

(1) If using IDEC products in combination with other products, confirm the applicable laws / regulations and standards.
Also, confirm that IDEC products are compatible with your systems, machines, devices, and the like by using under the actual conditions. IDEC shall bear no liability whatsoever regarding the compatibility with IDEC products.

(2) The usage examples and application examples listed in Catalogs are for reference purposes only. Therefore, when introducing a product, confirm the performance and safety of the instruments, devices, and the like before use. Furthermore, regarding these examples, IDEC does not grant license to use IDEC products to you, and IDEC offers no warranties regarding the ownership of intellectual property rights or non-infringement upon the intellectual property rights of third parties.

(3) When using IDEC products, be cautious when implementing the following.

i. Use of IDEC products with sufficient allowance for rating and performance

ii. Safety design, including redundant design and malfunction prevention design that prevents other danger and damage even in the event that an IDEC product fails

iii. Wiring and installation that ensures the IDEC product used in your system, machine, device, or the like can perform and function according to its specifications

(4) Continuing to use an IDEC product even after the performance has deteriorated can result in abnormal heat, smoke, fires, and the like due to insulation deterioration or the like. Perform periodic maintenance for IDEC products and the systems, machines, devices, and the like in which they are used.

(5) IDEC products are developed and manufactured as general-purpose products for general industrial products. They are not intended for use in the following applications, and in the event that you use an IDEC product for these applications, unless otherwise agreed upon between you and IDEC, IDEC shall provide no guarantees whatsoever regarding IDEC products.

i. Use in applications that require a high degree of safety, including nuclear power control equipment, transportation equipment (railroads / airplanes / ships / vehicles / vehicle instruments, etc.), equipment for use in outer space, elevating equipment, medical instruments, safety devices, or any other equipment, instruments, or the like that could endanger life or human health

ii. Use in applications that require a high degree of reliability, such as provision systems for gas / waterworks / electricity, etc., systems that operate continuously for 24 hours, and settlement systems

iii. Use in applications where the product may be handled or used deviating from the specifications or conditions / environment listed in the Catalogs, such as equipment used outdoors or applications in environments subject to chemical pollution or electromagnetic interference
If you would like to use IDEC products in the above applications, be sure to consult with an IDEC sales representative.

3. Inspections

We ask that you implement inspections for IDEC products you purchase without delay, as well as thoroughly keep in mind management/maintenance regarding handling of the product before and during the inspection.

4. Warranty

(1) Warranty period

The warranty period for IDEC products shall be one (1) year after purchase or delivery to the specified location. However, this shall not apply in cases where there is a different specification in the Catalogs or there is another agreement in place between you and IDEC.

(2) Warranty scope

Should a failure occur in an IDEC product during the above warranty period for reasons attributable to IDEC, then IDEC shall replace or repair that product, free of charge, at the purchase location / delivery location of the product, or an IDEC service base. However, failures caused by the following reasons shall be deemed outside the scope of this warranty.

i. The product was handled or used deviating from the conditions / environment listed in the Catalogs

ii. The failure was caused by reasons other than an IDEC product

iii. Modification or repair was performed by a party other than IDEC

iv. The failure was caused by a software program of a party other than IDEC

v. The product was used outside of its original purpose

vi. Replacement of maintenance parts, installation of accessories, or the like was not performed properly in accordance with the user's manual and Catalogs

vii. The failure could not have been predicted with the scientific and technical standards at the time when the product was shipped from IDEC

viii. The failure was due to other causes not attributable to IDEC (including cases of force majeure such as natural disasters and other disasters)

Furthermore, the warranty described here refers to a warranty on the IDEC product as a unit, and damages induced by the failure of an IDEC product are excluded from this warranty.

5. Limitation of liability

The warranty listed in this Agreement is the full and complete warranty for IDEC products, and IDEC shall bear no liability whatsoever regarding special damages, indirect damages, incidental damages, or passive damages that occurred due to an IDEC product.

6. Service scope

The prices of IDEC products do not include the cost of services, such as dispatching technicians. Therefore, separate fees are required in the following cases.

(1) Instructions for installation / adjustment and accompaniment at test operation (including creating application software and testing operation, etc.)

(2) Maintenance inspections, adjustments, and repairs

(3) Technical instructions and technical training

(4) Product tests or inspections specified by you

The above content assumes transactions and usage within your region. Please consult with an IDEC sales representative regarding transactions and usage outside of your region. Also, IDEC provides no guarantees whatsoever regarding IDEC products sold outside your region.

IDEC CORPORATION

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