

3

Ø16 시리즈 Ø 16 SERIES



3-1 누름 버튼 / 비상 누름 버튼스위치	3-1 Push Button/Emergency Push Button Switch
3-2 조광형 / 비상 조광형 누름 버튼 스위치	3-2 Illuminated/Emergency Illuminated Push Button Switch
3-3 표시등	3-3 Pilot Lamp
3-4 로타리 스위치	3-4 Rotary Switch
3-5 표시등 (APL Ø16)	3-5 Pilot Lamp (APL Ø16)

스위치 특징 및 구조 | Feature and Structure of Switch |

- 판스프링 구조로 되어 있습니다. 순간적인 작동으로 ARC에 의한 접점 소손 방지
- 몸체가 투명합니다. 작동유무가 확인됩니다.
- Consist of plate spring structure. Protecting contact from burning caused by Arc.
- Body is transparent, Can verify whether operated or not.

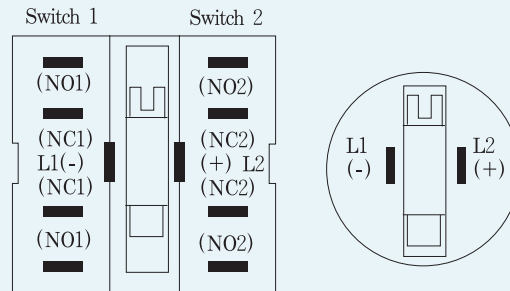
스위치 개요 | Performance Summary of Switch |

정격용량 (Rating capacity)	AC 250V 3A (Resistance Load)	
절연저항 (Insulation resistance)	above 100MΩ (DC 500V, Meg)	
접촉저항 (Contact resistance)	below 50mΩ (Initial value)	
내전압 (Withstand voltage)	단자와 접지 : AC 1,500V/min, 동극단자 : AC1,000V/min	
기계적수명 (Mechanical lifetime)	Automatic return	above 500,000times
	Lock type	above 200,000times
전기적수명 (Electrical lifetime)	above 100,000times (20times/min)	

스위치 부품 재질 | Part Materials of Switch |

부 품 (Part)	재 질 (Materials)
몸 체 (Body)	Polycarbonate resin
접 점 (Contact)	은 (silver)
고정단자 (Fixed terminal)	황 동 (Brass)
가동단자 (Moving terminal)	베릴륨동 (Beryllium copper)
스프링 (Spring)	Stainless steel

단자 배치 (내부 접속) | Terminal Arrangement (inside connection) |

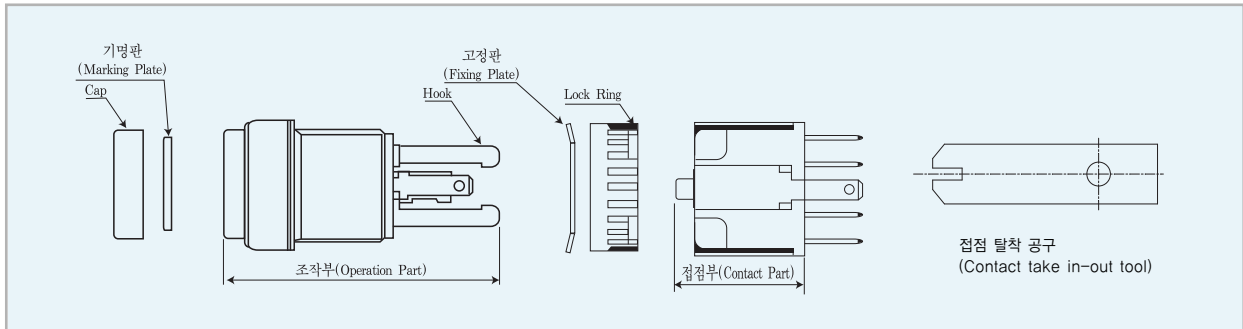


※ 배선시 단자의 극성에 주의하십시오. (Note polarity of terminal in wiring.)

제품 특징 및 구조 | Features and Structure of Product |

- 조작부와 접점부가 분리형으로 되어 있습니다.
..... 원터치 탈착방식
- 별도의 Lock Ring을 사용합니다.
..... 보수 및 교체가 편리
- 접점부는 판 스프링 구조로 되어 있습니다.
..... 작동유무가 확인되며, 순간적인 작동으로 Arc에 의한 접점소손방지
- 누름버튼, 조광형 및 표시등은 기명판을 교환하게 되어 있습니다.
..... 기명판에 문자각인하여 사용할 수 있습니다.
- Operation part and contact part are consist of separate type.
..... One touch transfer type
- Using separate lock ring.
..... Easy for repair and replacement
- Contact part is consist of plate spring structure .
..... Can verify whether operated or not, and protect contact from burning caused by Arc of instant operation
- Push button switch, illuminated push button switch and pilot lamp can be replaced by marking plate.
..... Possible to engrave on marking plate.

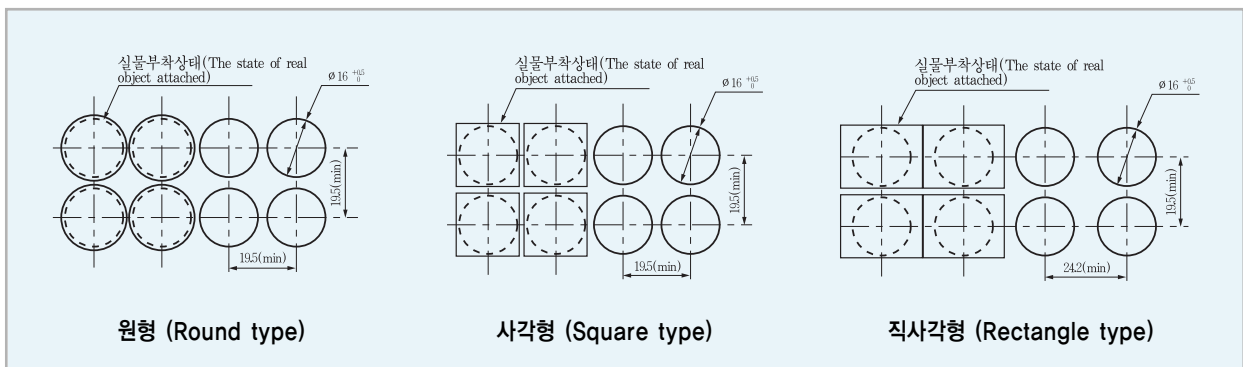
취급 설명서 | User Guide |



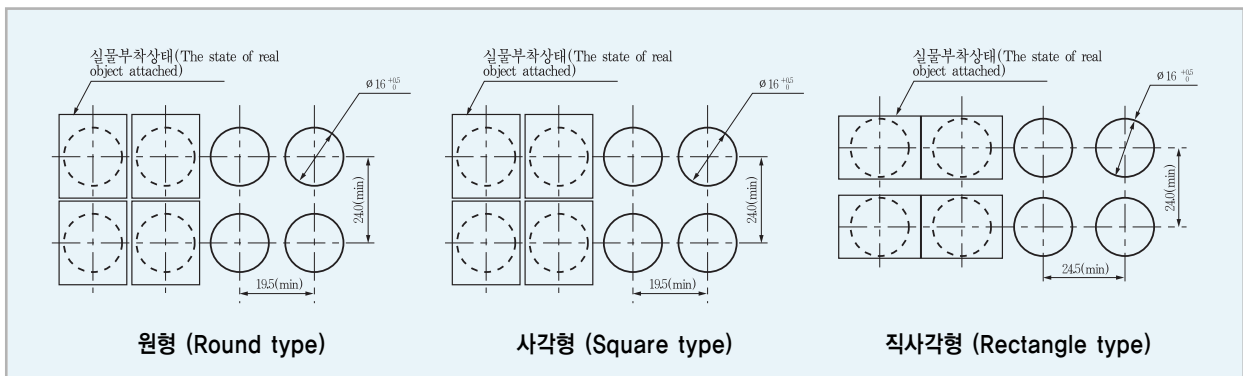
1. Hook부를 벌려서 점점부를 분리합니다.
2. Lock Ring를 빼낸 후 조작부를 판넬에 삽입시키고, 다시 Lock Ring으로 고정합니다.
3. 점점부를 다시 조작부에 조립시에는 점점부의 형상과 조작부의 형상에 맞추어 끼운 후 딸깍 소리가 나면 결합이 된 상태입니다.
4. 조립후 고정상태를 확인하십시오.

1. Separate contact part by widening hook part.
2. After removing lock ring, insert operation part into the panel and fix it once again with Lock Ring.
3. When attaching contact part to operation part between the Side of contact part and the side of operation part again, if you hear "Click" it is a perfectly assembled.
4. Double-Check with it.

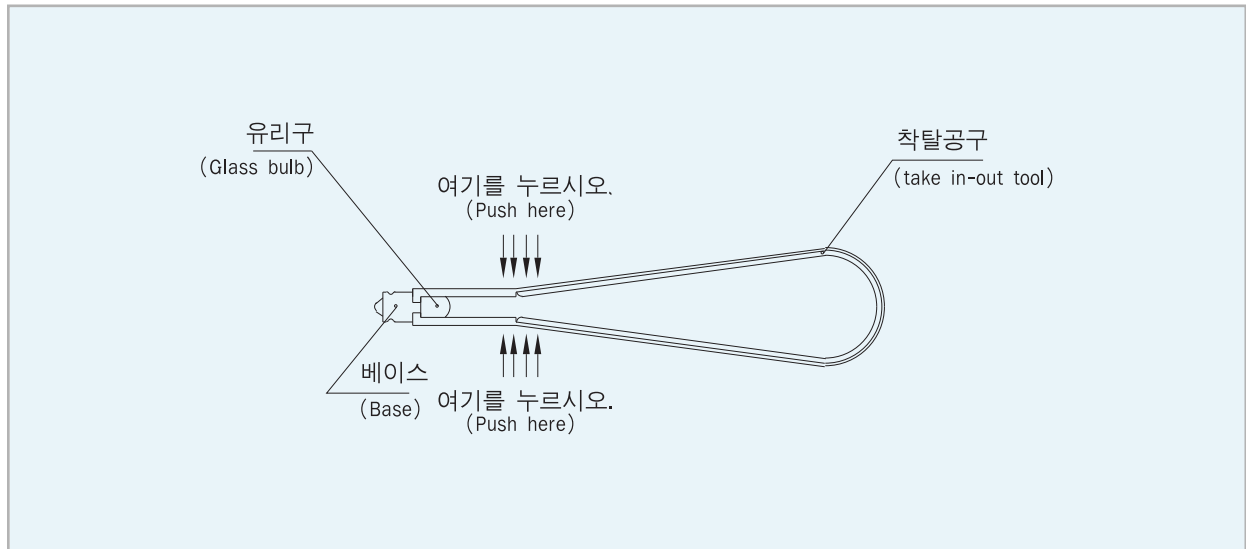
판넬 가공 치수 | Cut-out Dimension |



보호 카바 부착형 | Protection Cover Attachment Type |



램프 교체 방법 | Lamp Replacement Method |



전구 착탈 공구 사용 방법 (그림 참조)

1. 공구를 최대한 밀어 넣는다 (전구 베이스까지).
2. 공구의 최대한 앞부분을 잡아 뽑는다.

How to use Lamp Remover (Refer to the picture)

1. Push and insert remover utmostly. (To lamp base)
2. Pull out the utmost forepart of remover.

(주의사항)

1. 최대한 밀지 않고(베이스까지) 유리구를 잡게 될 경우 유리구가 파손될 수 있음.
2. 공구의 손잡이의 뒤를 잡을 경우 전구 이탈이 발생할 수 있음.

(Note)

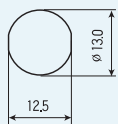
1. Glass bulb may be damaged if picked up glass bulb without pushing down enough to base. (To lamp base).
2. Bulb may not be taken out if holding the rear part of remover.

램프 정격 | Lamp Rating |

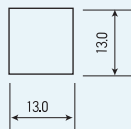
형식 (Type)	전전압식 (Overall-voltage type)			LED Type		
성능 (Performance)						
정격전압 (Rating voltage)	AC 5V	AC 12V	AC 24V	DC 6V	DC 12V	DC 24V
램프정격 (Lamp rating)	6V1W	14V1W	28V1W	40mA	40mA	20mA

기명판 치수 | Size of Marking Plate |

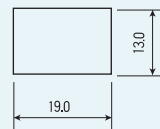
(unit : mm)



원형 (Round type)



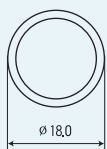
사각형 (Square type)



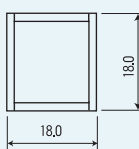
직사각형 (Rectangle type)

외형의 형태 | Type of Shape |

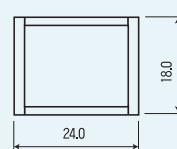
(unit : mm)



원형 (Round type)



사각형 (Square type)



직사각형 (Rectangle type)

보호 카바 | Protection Cover |

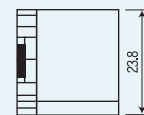
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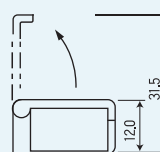
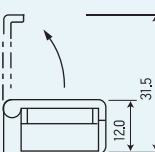
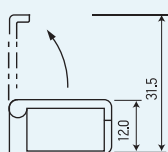
원형 (Round type)



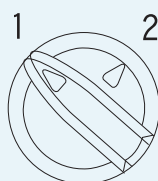
사각형 (Square type)



직사각형 (Rectangle type)



로타리 스위치 손잡이 동작 방향도 | Directional Diagram of Handle Action of Rotary Switch |



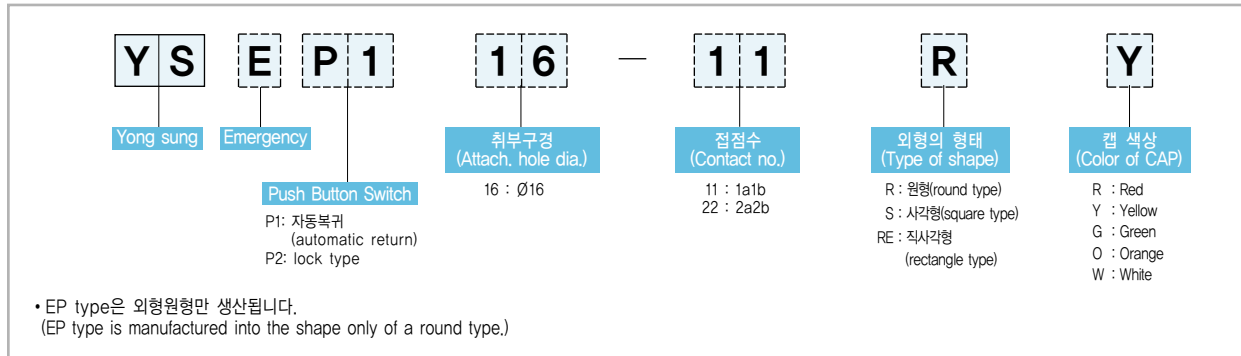
3-1

누름 버튼 / 비상 누름 버튼 스위치

Push Button / Emergency Push Button Switch



형식 구분도 | Type Classification Diagram



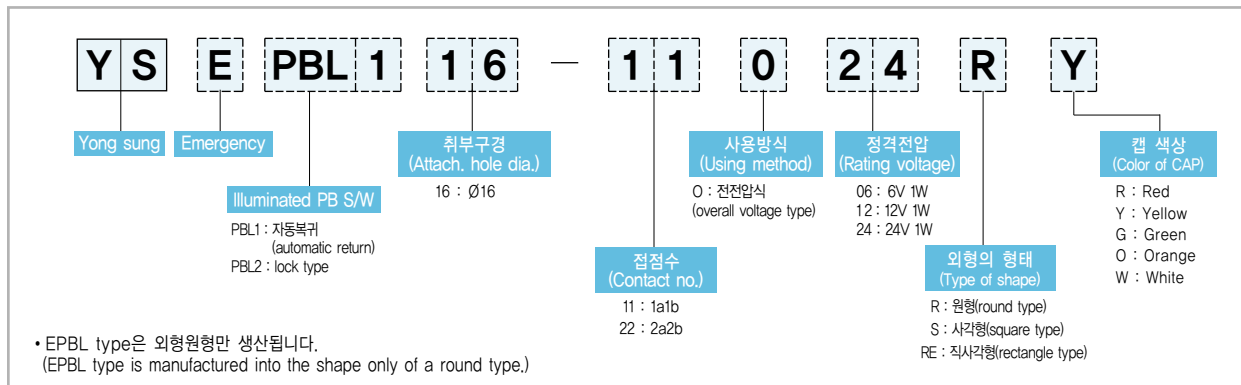
3-2

조광형 / 비상 조광형 누름 버튼 스위치

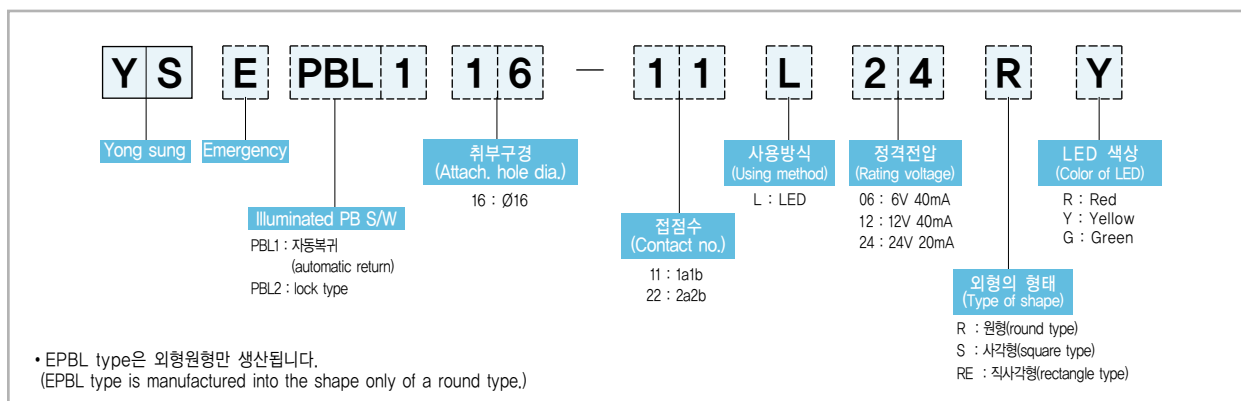
Illuminated / Emergency Illuminated Push Button Switch



형식 구분도 | Type Classification Diagram - BULB Type



형식 구분도 | Type Classification Diagram - LED Type

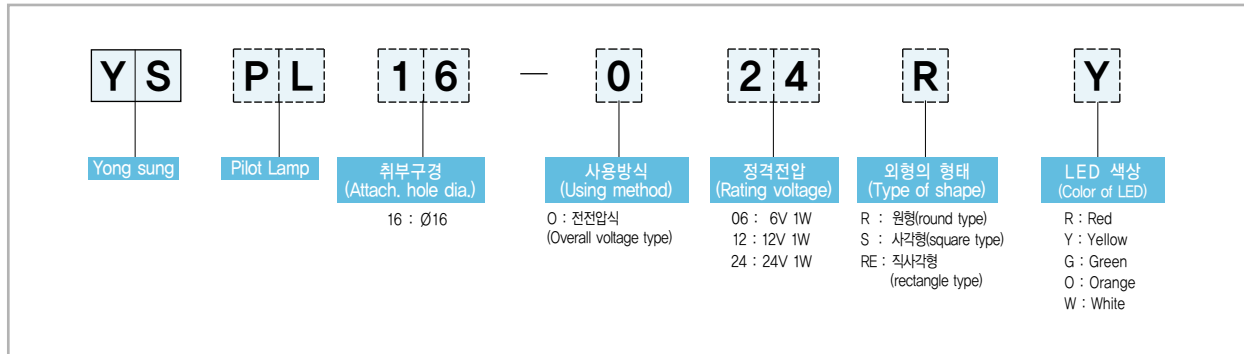


3-3

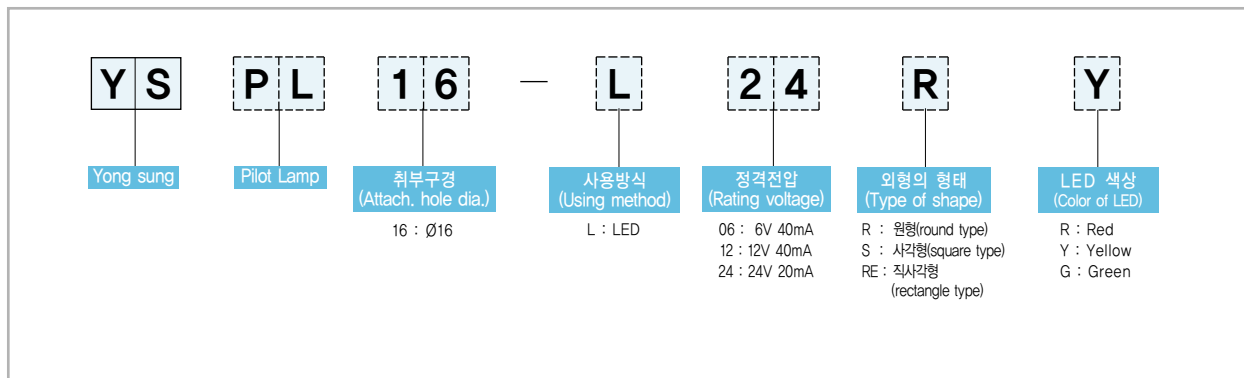
표시등 Pilot Lamp



형식 구분도 | Type Classification Diagram - BULB Type |



형식 구분도 | Type Classification Diagram - LED Type |

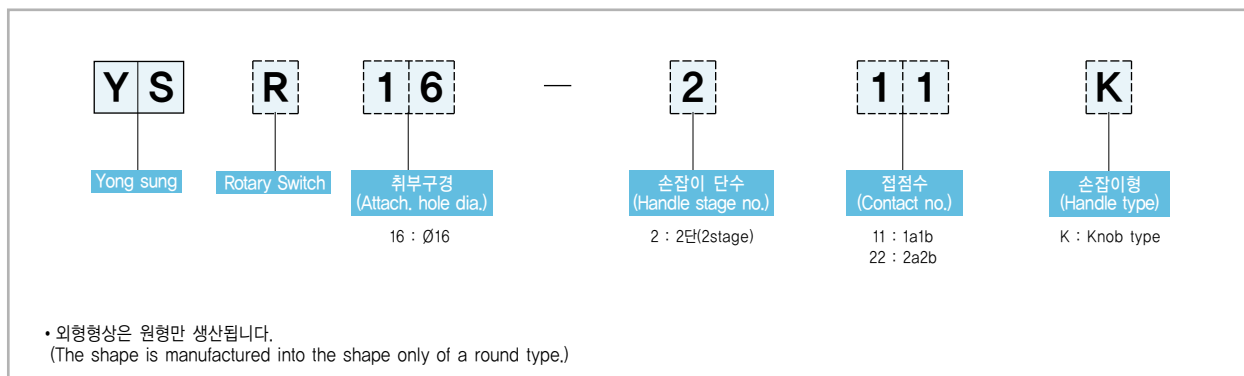


3-4

로타리 스위치 Rotary Switch



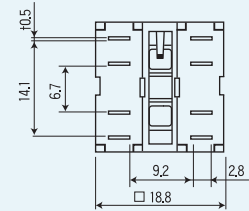
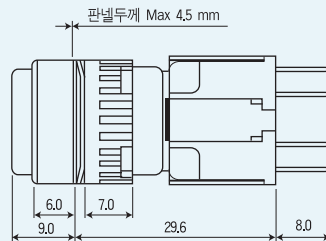
형식 구분도 | Type Classification Diagram |



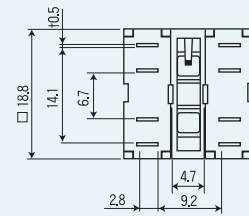
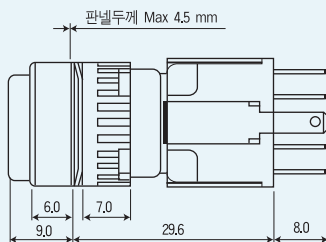
외형 / 치수도 | Shape / Dimension Drawing |

(unit : mm)

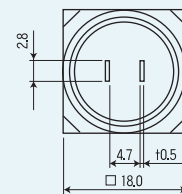
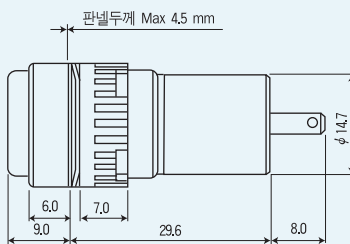
YS P116-11RR



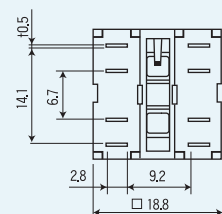
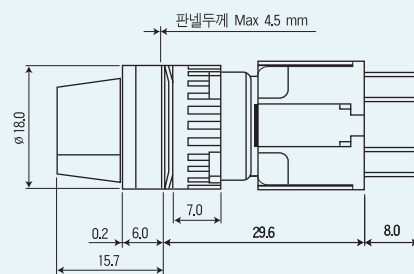
YS PBL116-11-024RR



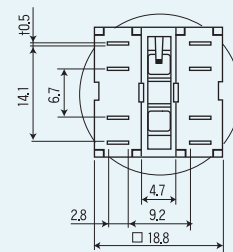
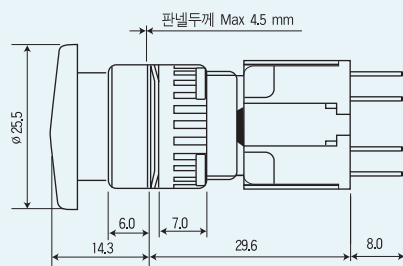
YS PL16-024RR



YS R16-211



YS EPBL116-11-024RR



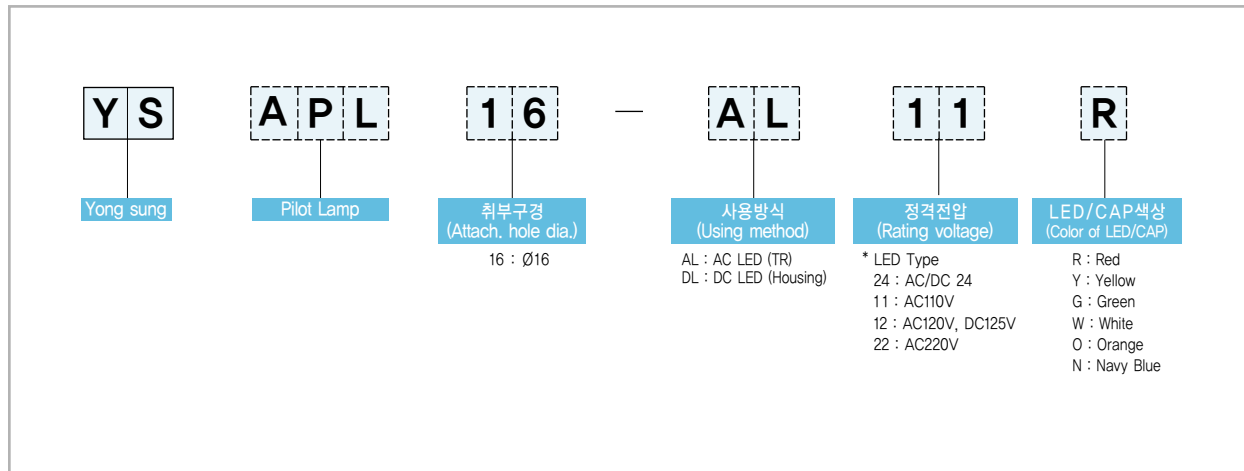
종합 구분도 | Total Classification Diagram

	YS PL 16 (Pilot Lamp)	YS E/PBL□16 (Emergency/Illuminated Push Button Switch)	YS E/P□16 (Emergency/Push Button Switch)	YS R16 (Rotary Switch)
외형 형태 (Type of shape)	R S RE 	R S RE 	R S RE 	R 
광원의 종류 (Kind of light)	전구, LED (BULB, LED)	전구, LED (BULB, LED)		
LED 색상 (Color of LED)	적, 녹, 황 (Red, Green, Yellow)	적, 녹, 황 (Red, Green, Yellow)		
LED 정격 (Rating of LED)	6V 40mA 12V 40mA 24V 20mA	6V 40mA 12V 40mA 24V 20mA		
전구 정격 (Rating of bulb)	6V 1W 14V 1W 28V 1W	6V 1W 14V 1W 28V 1W		
캡 또는 핸들 색상 (Color of cap or handle)	적, 녹, 황, 등, 백 (Red, Green, Yellow, Orange, White)	적, 녹, 황, 등, 백 (Red, Green, Yellow, Orange, White)	적, 녹, 황, 등, 백 (Red, Green, Yellow, Orange, White)	흑 (Black)
접점수 (Number of contact)		1a1b 2a2b	1a1b 2a2b	1a1b 2a2b
전구 규격 (Bulb standard)	S5.7S	S5.7S		

3-5

표시등 (APL Ø16)
Pilot Lamp (APL Ø16)

형식 구분도 | Type Classification Diagram - LED Type |



제품 특징 및 구조 | Features and Structure of Product |

- LED LAMP 반불점등 보호구조 (전류, 전압제어 기능)입니다.
※ 설치 환경 조건에 따라 기능이 차이가 발생 될 수 있음.
- LED LAMP PUSH PULL TYPE이므로 교체시 편리합니다.
- 판넬 부착링이 2개이므로 판넬 두께에 따라 높이조정이 가능하며 견고하게 부착할 수 있습니다.
- LED LAMP semi lighting protection structure (current, voltage control function).
※ Functionality can be different depending on install environment condition.
- Easily replaceable due to using of LED LAMP PUSH PULL TYPE.
- 2 panel attaching rings enable to adjust height depending on panel thickness and can be affixed to panel impregnably.

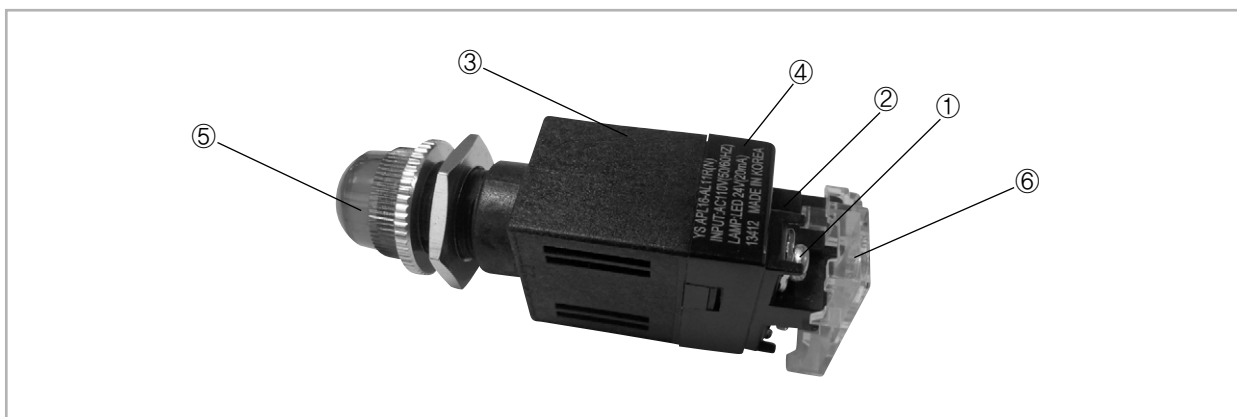
성능 개요 | Performance Summary |

절연 저항 (Insulation resistance)	Above 100MΩ (DC 500V.MEG)
내전압 (Withstand voltage)	AC 2,500V/min (50Hz~60Hz)
사용 주위 온도 (Ambient temperature)	-25℃ ~ +40℃
상대 습도 (Relative humidity)	45% ~ 85%

* 관련규격 (Related standard) : KSCIEC 60947-5-1, KSC 7527

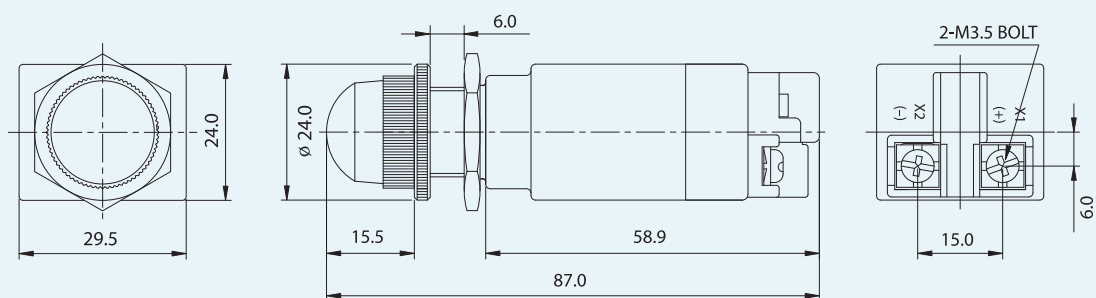
부품 재질 | Part Materials |

No	부 품 (Part)	재 질 (Materials)
1	나 사 (Screw)	Stainless Steel or Carbon Steel (option)
2	단 자 (Terminal)	Brass
3	케이스 (Case)	ABS (내열) Resin
4	커 버 (Cover)	ABS (내열) Resin
5	캡 (Cap)	AS Resin
6	보호커버 (Protection Cover)	PC Resin



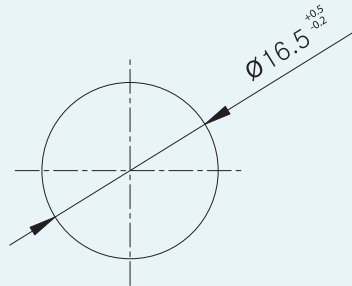
외형 / 치수도 | Shape / Dimension Drawing |

(unit : mm)



판넬 가공 치수도 | Cut-out Dimension |

(unit : mm)



판넬 부착 간격도 | Attachment Interval Diagram |

(unit : mm)

