

LIMIT SERIES
SMALL LIMIT SERIES
MICRO SWITCH SERIES

KG SWITCH SERIES, KD SWITCH SERIES
KM METAL SWITCH SERIES
ULTRA SWITCH SERIES (Ø16, 22, 25, 30)

KG Series

Ø22/25/30 KG 시리즈 (KG Series)

- 044 누름버튼 스위치 (Push button switch)
- 046 조광형 누름버튼 스위치 (Lamp push button switch)
- 048 표시등 (Pilot lamp)
- 050 셀렉터 스위치 (Selector switch)
- 052 조광형 셀렉터스위치 (Lamp selector switch)
- 054 키 셀렉터 스위치 (Key selector switch)
- 056 전자부저 (Electric buzzer)
- 058 비상정지용 누름버튼 (Emergency push button)
- 060 조광 비상 정지용 누름버튼 (Lamp emergency push button)
- 062 비상정지용 푸쉬록턴 리셋 (Emergency push lock turn reset)
- 064 조광 비상정지용 푸쉬록턴 리셋 (Lamp emergency push lock turn reset)
- 070 KG M 제어용 스위치 (KG M Series)
- 072 방수 스위치 (Waterproof Switch)

특징 (Features)

1. 조작부와 접점부 상·하 분리형으로 설계되었습니다.
Operating and contact part was planned in separation style
2. 외부홀 Ø22, Ø25, Ø30로 설계하여 선택 사용이 용이합니다.
Attached hole Ø22, Ø25, Ø30 The selection with is various it used
3. 슬림형은 판넬에서 2.5mm 돌출부 측면으로부터 감말이 없습니다.
Slim type is being 2.5mm projections from panel, there is no jam from the side
4. 스프링 동작 접촉 블록은 기본 1a1b로 설계되었습니다.
Contact block was planned basic 1a1b
5. 광원 출력부는 LED를 기본으로 제작되었습니다.
A light source was produced with the LED
6. KS-H02210~7003A, KS-H02210~7004A, KS-H02210~7005A
UL, CE, RoHS, AEC-Q200, ISO 인증제품
7. 보호구조: IP65
Protected structure

LED 램프 (LED Lamp)

1차 입력전압 (Rateo voltage)	정격전류 (Rated current)
12/24V d.c	22mA
110/220V	8mA 이하
380V a.c	24mA
126V d.c	4.5mA
220V d.c	4.5mA

기본 회로 (Circuit diagrams)



방수 스위치



KG M 제어용 스위치



성능 (Performance)

항 목 (List)	종 류 (Items)	KG Series 제어용 스위치(Ø22, Ø25, Ø30)
정격용량 (Rating)		125V d.c 1A / 250V a.c 5A
절연저항 (Insulating resistance)		100MΩ 이상 (Min 100MΩ)
내전압 (Withstand voltage)		2,500V a.c, 50/60Hz에서 1분간 2,500V a.c 50/60Hz 1min
접촉저항 (Contact resistance)		50mΩ 이하
내진동 (Vibration protection)		10~55Hz 복진폭 3mm/10~55Hz Vibration Width 3mm
내충격 (Shock protection)		약 50G(50%)
사용주의 온도 (Ambient temperature)		-10℃~+50℃
사용주의 습도 (Relative humidity)		45~85% RH
개폐반도 (Open/close time)		최대 30회/분 (Max 30 1min)
수명 (Lifetime)	전기적 (Electrical)	10만회 이상/1,800h (Min 0, 1m/1, 800h)
	기계적 (Mechanical)	50만회 이상/1,500h (Min 0, 5m/1, 800h)

INNOVATE NOW!

Ø22/25/30 제어용 스위치

○ 누름버튼 스위치 (Push button switch)

형명 구성 (Name composition)

KG F N H C J Y L

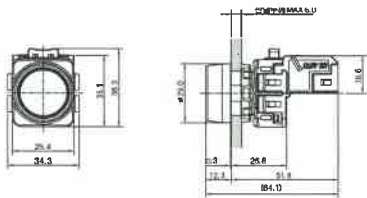
- F : 누름버튼 (Push button)
- 조작부 형태 (Actuator form)
- N : 일반형Ø22 (Normal type) Plastic guide
- H : 고급형Ø22 (High-grade type) Aluminum guide
- C : 일반매입형Ø25 (Normal buried type) Plastic guide
- J : 고급매입형Ø25 (Luxury buried type) Aluminum guide
- Y : 일반매입형Ø30 (Normal buried type) Plastic guide
- L : 고급매입형Ø30 (Luxury buried type) Aluminum guide
- 동작기능 (Operation)
- M : 자기복귀 (Momentary)
- A : 자기유지 (Alternate)
- 접점구성 (Contacts)
- 1 : 1a1b 2 : 2a2b
- 색상 (Color)
- R : 적 (Red) Y : 황 (Yellow) G : 녹 (Green)
- A : 청 (Blue) W : 백 (White) B : 흑 (Black)



외형 및 도면 (External form/ Drawing)



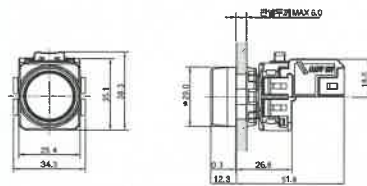
N형Ø22 플라스틱 돌출형
(Normal N-type plastic guide)



KGf- NM1R (자기복귀, Momentary)
KGf- NA1R (자기유지, Alternate)



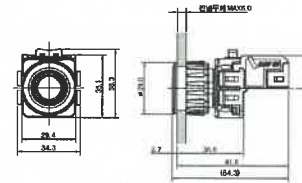
H형Ø22 알루미늄 돌출형
(High-grade H-type aluminum guide)



KGf- HM1R (자기복귀, Momentary)
KGf- HA1R (자기유지, Alternate)



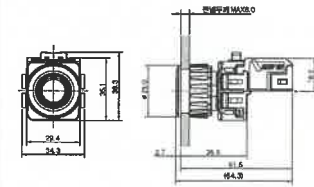
C형Ø25 플라스틱 매입형
(Normal buried C-type plastic guide)



KGf- CM1R (자기복귀, Momentary)
KGf- CA1R (자기유지, Alternate)



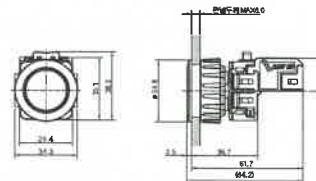
J형Ø25 알루미늄 매입형
(Luxury buried J-type aluminum guide)



KGf- JM1R (자기복귀, Momentary)
KGf- JA1R (자기유지, Alternate)



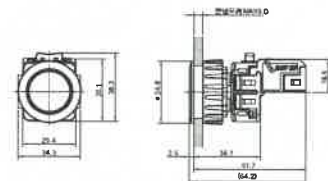
Y형Ø30 플라스틱 매입형
(Normal buried Y-type plastic guide)



KGf- YM1R (자기복귀, Momentary)
KGf- YA1R (자기유지, Alternate)



L형Ø30 알루미늄 매입형
(Luxury buried L-type aluminum guide)



KGf- LM1R (자기복귀, Momentary)
KGf- LA1R (자기유지, Alternate)

Ø22/25/30 제어용 스위치

조광형 누름버튼 스위치(Lamp push button switch)

형명 구성 (Name composition)

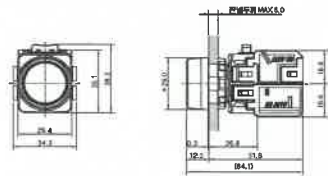
KGX M N H C J Y L

- X : 조광형 누름버튼 (Lamp push button switch)
- 조작부 형태 (Actuator form)
 - N : 일반형Ø22 (Normal type) Plastic guide
 - H : 고급형Ø22 (High-grade type) Aluminum guide
 - C : 일반매입형Ø25 (Normal buried type) Plastic guide
 - J : 고급매입형Ø25 (Luxury buried type) Aluminum guide
 - Y : 일반매입형Ø30 (Normal buried type) Plastic guide
 - L : 고급매입형Ø30 (Luxury buried type) Aluminum guide
- 동작기능 (Operation)
 - M : 자기복귀 (Momentary) A : 자기유지 (Alternate)
- 장력전압 (Voltage)
 - D1 : 110/125V d.c D2 : 12/24V d.c D3 : 220V d.c
 - V2 : 110/220V a.c V3 : 380V a.c V4 : 440V a.c
- 접점구성 (Contacts)
 - 1 : 1a1b 2 : 2a2b
- 색상 (Color)
 - R : 적 (Red) Y : 황 (Yellow) G : 녹 (Green)
 - A : 청 (Blue) W : 백 (White) B : 흑 (Black)
 - (LED Lamp white)

외형 및 도면 (External form/ Drawing)

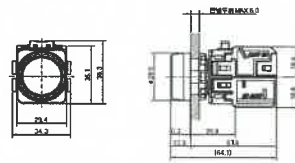


N형Ø22 플라스틱 돌출형
(Normal N-type plastic guide)



- KGX-NMD21R (자기복귀, Momentary) / 12~24V d.c
- KGX-NAD21R (자기유지, Alternate) / 12~24V d.c
- KGX-NMV21R (자기복귀, Momentary) / 110~220V a.c
- KGX-NAV21R (자기유지, Alternate) / 110~220V a.c

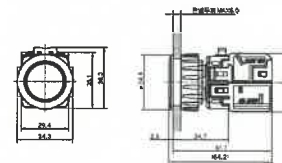
H형Ø22 알루미늄 돌출형
(High-grade H-type aluminum guide)



- KGX-HMD21R (자기복귀, Momentary) / 12~24V d.c
- KGX-HAD21R (자기유지, Alternate) / 12~24V d.c
- KGX-HMV21R (자기복귀, Momentary) / 110~220V a.c
- KGX-HAV21R (자기유지, Alternate) / 110~220V a.c



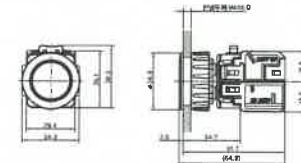
Y형Ø30 플라스틱 매입형
(Normal buried Y-type plastic guide)



- KGX-YMD21R (자기복귀, Momentary) / 12~24V d.c
- KGX-YAD21R (자기유지, Alternate) / 12~24V d.c
- KGX-YMV21R (자기복귀, Momentary) / 110~220V a.c
- KGX-YAV21R (자기유지, Alternate) / 110~220V a.c



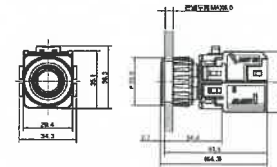
L형Ø30 알루미늄 매입형
(Luxury buried L-type aluminum guide)



- KGX-LMD21R (자기복귀, Momentary) / 12~24V d.c
- KGX-LAD21R (자기유지, Alternate) / 12~24V d.c
- KGX-LMV21R (자기복귀, Momentary) / 110~220V a.c
- KGX-LAV21R (자기유지, Alternate) / 110~220V a.c



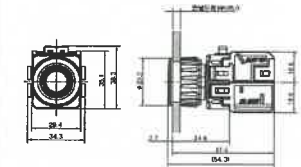
C형Ø25 플라스틱 매입형
(Normal buried C-type plastic guide)



- KGX-CMD21R (자기복귀, Momentary) / 12~24V d.c
- KGX-CAD21R (자기유지, Alternate) / 12~24V d.c
- KGX-CMV21R (자기복귀, Momentary) / 110~220V a.c
- KGX-CAV21R (자기유지, Alternate) / 110~220V a.c



J형Ø25 알루미늄 매입형
(Luxury buried J-type aluminum guide)



- KGX-JMD21R (자기복귀, Momentary) / 12~24V d.c
- KGX-JAD21R (자기유지, Alternate) / 12~24V d.c
- KGX-JMV21R (자기복귀, Momentary) / 110~220V a.c
- KGX-JAV21R (자기유지, Alternate) / 110~220V a.c

Ø22/25/30 제어용 스위치

☀ 표시등(Pilot lamp)

형명 구성 (Name composition)

KGP N V2 R

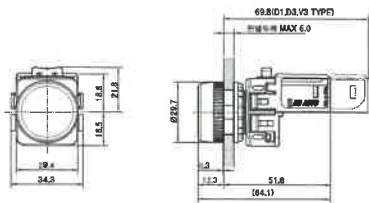
- P : 표시등 (Pilot lamp)
- 조작부 형태 (Actuator form)
 - N : 일반형Ø22 (Normal type) Plastic guide
 - H : 고급형Ø22 (High-grade type) Aluminum guide
 - C : 일반매입형Ø25 (Normal buried type) Plastic guide
 - J : 고급매입형Ø25 (Luxury buried type) Aluminum guide
 - Y : 일반매입형Ø30 (Normal buried type) Plastic guide
 - L : 고급매입형Ø30 (Luxury buried type) Aluminum guide
- 정격전압 (Voltage)
 - D1 : 110/125V d.c D2 : 12/24V d.c D3 : 220V d.c
 - V2 : 110/220V a.c V3 : 380V a.c V4 : 440V a.c
- 색상 (Color)
 - R : 적 (Red) Y : 황 (Yellow) G : 녹 (Green)
 - A : 청 (Blue) W : 백 (White)



외형 및 도면 (External form/ Drawing)



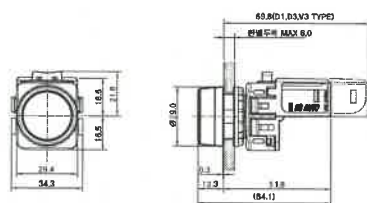
N형Ø22 돌출캡형
(Normal N-type out cap form)



KGP-ND2R / 12~24V d.c
KGP-NV2R / 110~220V a.c



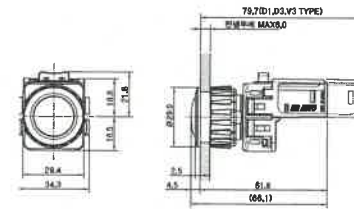
H형Ø22 알루미늄 돌출형
(High-grade H-type aluminum guide)



KGP-HD2R / 12~24V d.c
KGP-HV2R / 110~220V a.c



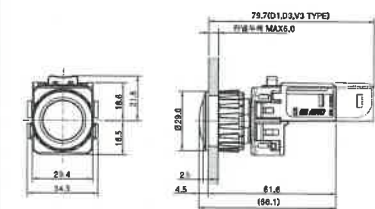
C형Ø25 플라스틱 매입형
(Normal buried C-type plastic guide)



KGP-CD2R / 12~24V d.c
KGP-CV2R / 110~220V a.c



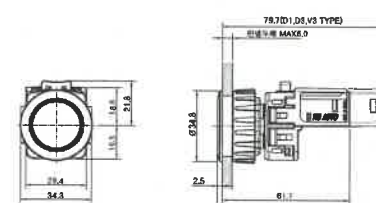
J형Ø25 알루미늄 매입형
(Luxury buried J-type aluminum guide)



KGP-JD2R / 12~24V d.c
KGP-JV2R / 110~220V a.c



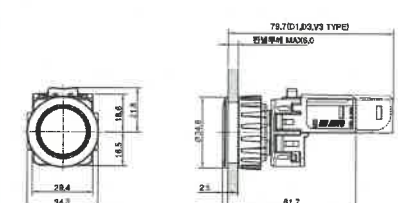
Y형Ø30 플라스틱 매입형
(Normal buried Y-type plastic guide)



KGP-YD2R / 12~24V d.c
KGP-YV2R / 110~220V a.c



L형Ø30 알루미늄 매입형
(Luxury buried L-type aluminum guide)



KGP-LD2R / 12~24V d.c
KGP-LV2R / 110~220V a.c

Ø22/25/30 제어용 스위치

선택터 스위치(Selector switch)

형명 구성 (Name composition)



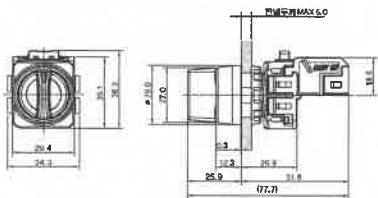
- S : 선택터 스위치 (Selector switch)
- 조작부 형태 (Actuator form)
 - N : 일반형Ø22 (Normal type) Plastic guide
 - H : 고급형Ø22 (High-grade type) Aluminum guide
 - C : 일반매입형Ø25 (Normal buried type) Plastic guide
 - J : 고급매입형Ø25 (Luxury buried type) Aluminum guide
 - Y : 일반매입형Ø30 (Normal buried type) Plastic guide
 - L : 고급매입형Ø30 (Luxury buried type) Aluminum guide
- 동작기능 (Operation)
 - 2M : 2단 수동 (2 Manual return)
 - 2R : 2단 자동 (2 Automatic return)
 - 3M : 3단 수동 (3 Manual return)
 - 3R : 3단 자동 (3 Automatic return)
- 접점구성 (Contacts)
 - 1 : 1a1b 2 : 2a2b



외형 및 도면 (External form/ Drawing)



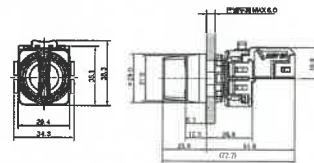
N형Ø22 플라스틱 돌출형
(Normal N-type plastic guide)



- KGS- N2M1 (2단수동-2Manual return)
- KGS- N2R1 (2단자동-2Automatic return)
- KGS- N3M2 (3단수동-3Manual return)
- KGS- N3R2 (3단자동-3Automatic return)



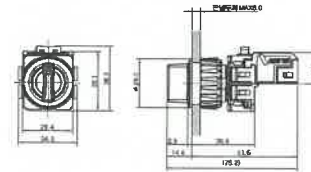
H형Ø22 알루미늄 돌출형
(High-grade H-type aluminum guide)



- KGS- H2M1 (2단수동-2Manual return)
- KGS- H2R1 (2단자동-2Automatic return)
- KGS- H3M2 (3단수동-3Manual return)
- KGS- H3R2 (3단자동-3Automatic return)



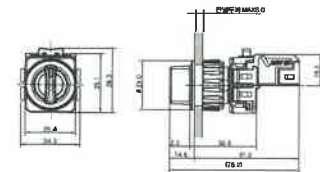
C형Ø25 플라스틱 매입형
(Normal buried C-type plastic guide)



- KGS- C2M1 (2단수동-2Manual return)
- KGS- C2R1 (2단자동-2Automatic return)
- KGS- C3M2 (3단수동-3Manual return)
- KGS- C3R2 (3단자동-3Automatic return)



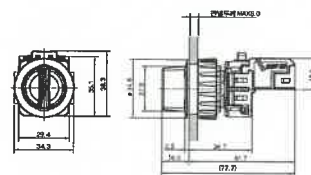
J형Ø25 알루미늄 매입형
(Luxury buried J-type aluminum guide)



- KGS- J2M1 (2단수동-2Manual return)
- KGS- J2R1 (2단자동-2Automatic return)
- KGS- J3M2 (3단수동-3Manual return)
- KGS- J3R2 (3단자동-3Automatic return)



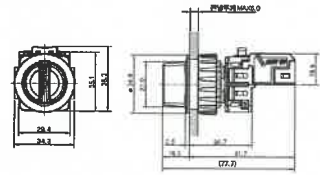
Y형Ø30 플라스틱 매입형
(Normal buried Y-type plastic guide)



- KGS- Y2M1 (2단수동-2Manual return)
- KGS- Y2R1 (2단자동-2Automatic return)
- KGS- Y3M2 (3단수동-3Manual return)
- KGS- Y3R2 (3단자동-3Automatic return)



L형Ø30 알루미늄 매입형
(Luxury buried L-type aluminum guide)



- KGS- L2M1 (2단수동-2Manual return)
- KGS- L2R1 (2단자동-2Automatic return)
- KGS- L3M2 (3단수동-3Manual return)
- KGS- L3R2 (3단자동-3Automatic return)

Ø22/25/30 제어용 스위치

조광형 셀렉터 스위치(Lamp selector switch)

형명 구성 (Name composition)



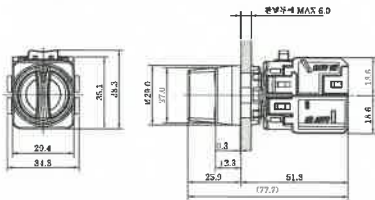
- T** : 조광형 셀렉터 (Lamp selector switch)
 - 조작부 형태 (Actuator form)**
 - N** : 일반형Ø22 (Normal type) Plastic guide
 - H** : 고급형Ø22 (High-grade type) Aluminum guide
 - C** : 일반매입형Ø25 (Normal buried type) Plastic guide
 - J** : 고급매입형Ø25 (Luxury buried type) Aluminum guide
 - Y** : 일반매입형Ø30 (Normal buried type) Plastic guide
 - L** : 고급매입형Ø30 (Luxury buried type) Aluminum guide
 - 동작기능 (Operation)**
 - 2M** : 2단 수동(2 Manual return) **2R** : 2단 자동(2 Automatic return)
 - 접점구성 (Contacts)**
 - 1** : 1a1b **2** : 2a2b
 - 정격전압 (Voltage)**
 - D1** : 110/125V d.c **D2** : 12/24V d.c **D3** : 220V d.c
 - V2** : 110/220V a.c **V3** : 380V a.c **V4** : 440V a.c
 - 색상 (Color)**
 - R** : 적 (Red) **Y** : 황 (Yellow) **G** : 녹색 (Green)
 - A** : 청 (Blue) **W** : 백 (White)
- ●
●
●
●

수동 (Manual return)
 자동 (Automatic return)

외형 및 도면 (External form/ Drawing)



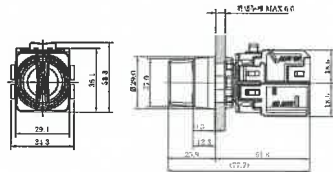
N형Ø22 플라스틱 돌출형
(Normal N-type plastic guide)



KGT- N2M1D2R (2단수동-2Manual return) / 12~24V d.c
 KGT- N2R1D2R (2단자동-2Automatic return) / 12~24V d.c
 KGT- N2M1V2R (2단수동-3Manual return) / 110~220V a.c
 KGT- N2R1V2R (2단자동-3Automatic return) / 110~220V a.c



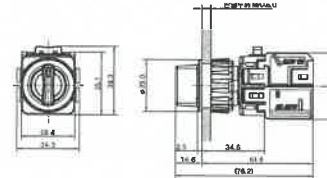
H형Ø22 알루미늄 돌출형
(High-grade H-type aluminum guide)



KGT- H2M1D2R (2단수동-2Manual return) / 12~24V d.c
 KGT- H2R1D2R (2단자동-2Automatic return) / 12~24V d.c
 KGT- H2M1V2R (2단수동-2Manual return) / 110~220V a.c
 KGT- H2R1V2R (2단자동-2Automatic return) / 110~220V a.c



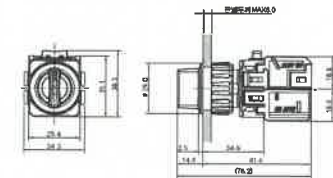
C형Ø25 플라스틱 매입형
(Normal buried C-type plastic guide)



KGT- C2M1D2R (2단수동-2Manual return) / 12~24V d.c
 KGT- C2R1D2R (2단자동-2Automatic return) / 12~24V d.c
 KGT- C2M1V2R (2단수동-2Manual return) / 110~220V a.c
 KGT- C2R1V2R (2단자동-2Automatic return) / 110~220V a.c



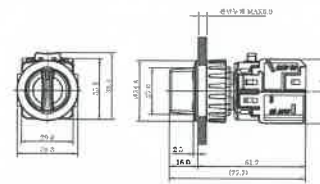
J형Ø25 알루미늄 매입형
(Luxury buried J-type aluminum guide)



KGT- J2M1D2R (2단수동-2Manual return) / 12~24V d.c
 KGT- J2R1D2R (2단자동-2Automatic return) / 12~24V d.c
 KGT- J2M1V2R (2단수동-2Manual return) / 110~220V a.c
 KGT- J2R1V2R (2단자동-2Automatic return) / 110~220V a.c



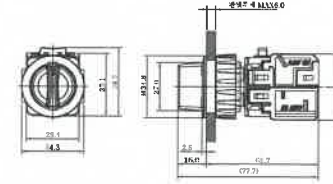
Y형Ø30 플라스틱 매입형
(Normal buried Y-type plastic guide)



KGT- Y2M1D2R (2단수동-2Manual return) / 12~24V d.c
 KGT- Y2R1D2R (2단자동-2Automatic return) / 12~24V d.c
 KGT- Y2M1V2R (2단수동-2Manual return) / 110~220V a.c
 KGT- Y2R1V2R (2단자동-2Automatic return) / 110~220V a.c



L형Ø30 알루미늄 매입형
(Luxury buried L-type aluminum guide)



KGT- L2M1D2R (2단수동-2Manual return) / 12~24V d.c
 KGT- L2R1D2R (2단자동-2Automatic return) / 12~24V d.c
 KGT- L2M1V2R (2단수동-2Manual return) / 110~220V a.c
 KGT- L2R1V2R (2단자동-2Automatic return) / 110~220V a.c

Ø22/25/30 제어용 스위치

키 셀렉터 스위치(Key selector switch)

형명 구성 (Name composition)

KGK H J M L A

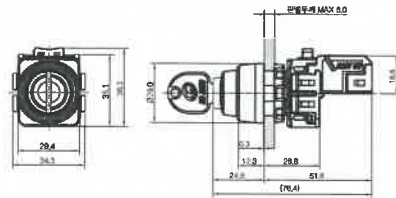
- K : 키 셀렉터 (Key selector switch)
- 조작부 형태 (Actuator form)
 - H : 고급형Ø22(High-grade type)Aluminum guide
 - J : 고급매입형Ø25(Luxury buried type)Aluminum guide
 - L : 고급매입형Ø30(Luxury buried type)Aluminum guide
- 동작기능 (Operation)
 - 2M : 2단 수동 (2 Manual return)
 - 2R : 2단 자동 (2 Automatic return)
 - 3M : 3단 수동 (3 Manual return)
 - 3R : 3단 자동 (3 Automatic return)
- 접점구성 (Contacts)
 - 1 : 1a1b 2 : 2a2b
- 키빠짐 위치 (Subtract the key location)
 - A : 좌측빠짐 (Left) B : 우측빠짐 (Right) C : 중앙빠짐 (Center)



외형 및 도면 (External form/ Drawing)



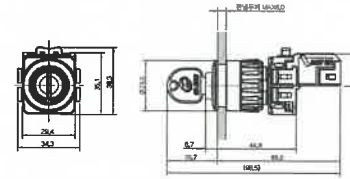
H형Ø22 알루미늄 돌출형
(High-grade H-type aluminum guide)



- KGK-H2M1A (2단수동-2Manual return)
- KGK-H2R1A (2단자동-2Automatic return)
- KGK-H3M2C (3단수동-3Manual return)
- KGK-H3R2C (3단자동-3Automatic return)



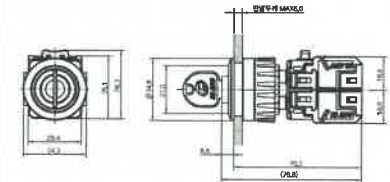
J형Ø25 알루미늄 매입형
(Luxury buried J-type aluminum guide)



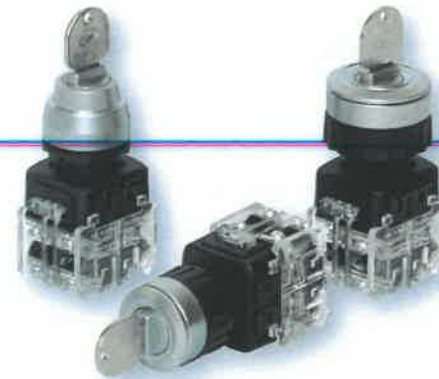
- KGK-J2M1A (2단수동-2Manual return)
- KGK-J2R1A (2단자동-2Automatic return)
- KGK-J3M2C (3단수동-3Manual return)
- KGK-J3R2C (3단자동-3Automatic return)



L형Ø30 알루미늄 매입형
(Luxury buried L-type aluminum guide)



- KGK-L2M1A (2단수동-2Manual return)
- KGK-L2R1A (2단자동-2Automatic return)
- KGK-L3M2C (3단수동-3Manual return)
- KGK-L3R2C (3단자동-3Automatic return)



Ø22/25/30 제어용 스위치

전자부저(Electric buzzer)

형명 구성 (Name composition)



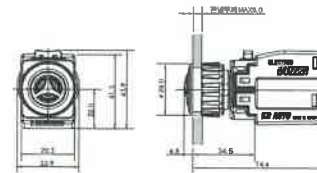
- B : 전자부저 (Electric buzzer)
- 상부 형태 (Upper part form)
- N : 일반형Ø22 (Normal type) Plastic guide
- H : 고급형Ø22 (High-grade type) Aluminum guide
- C : 일반매입형Ø25 (Normal buried type) Plastic guide
- J : 고급매입형Ø25 (Luxury buried type) Aluminum guide
- Y : 일반매입형Ø30 (Normal buried type) Plastic guide
- L : 고급매입형Ø30 (Luxury buried type) Aluminum guide
- 정격전압 (Voltage)
- D2 : 12/24V d.c V2 : 110/220V a.c
- 음색 (Tone)
- B : 단속음 (Beep)

정격 (Rated)

전압 (Voltage)	소비전류 (Consumption current)	음량 (dB)	주파수 (Hz)
12/24V d.c	Max, 27mA	95dB	-
110/220V a.c	Max, 27mA	95dB	50~60Hz



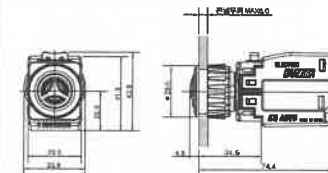
C형Ø25 플라스틱 매입형
(Normal buried C-type plastic guide)



KGB - CD2B / 12~24V d.c
KGB - CV2B / 110~220V a.c



J형Ø25 알루미늄 매입형
(Luxury buried J-type aluminum guide)

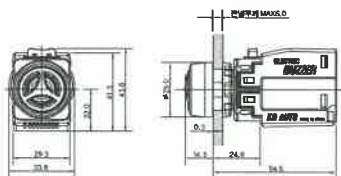


KGB - JD2B / 12~24V d.c
KGB - JV2B / 110~220V a.c

외형 및 도면 (External form/ Drawing) IP65 제외



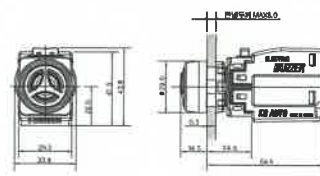
N형Ø22 플라스틱 돔출형
(Normal N-type plastic guide)



KGB - ND2B / 12~24V d.c
KGB - NV2B / 110~220V a.c



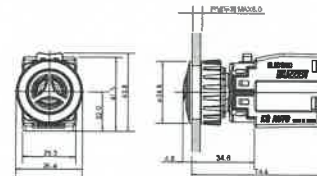
H형Ø22 알루미늄 돔출형
(High-grade H-type aluminum guide)



KGB - HD2B / 12~24V d.c
KGB - HV2B / 110~220V a.c



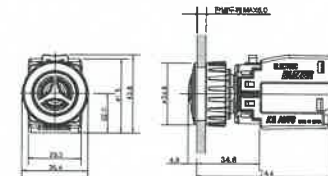
Y형Ø30 플라스틱 매입형
(Normal buried Y-type plastic guide)



KGB - YD2B / 12~24V d.c
KGB - YV2B / 110~220V a.c



L형Ø30 알루미늄 매입형
(Luxury buried L-type aluminum guide)



KGB - LD2B / 12~24V d.c
KGB - LV2B / 110~220V a.c

Ø22/25/30 제어용 스위치

비상 정지용 누름버튼 스위치(Emergency push button switch)

형명 구성 (Name composition)

KGE H N C J Y L

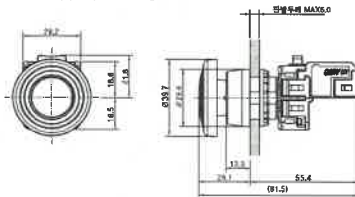
- E : 비상정지용 누름버튼 (Emergency push button)
- 조작부 형태 (Actuator form)
 - N : 일반형Ø22 (Normal type) Plastic guide
 - H : 고급형Ø22 (High-grade type) Aluminum guide
 - C : 일반매입형Ø25 (Normal buried type) Plastic guide
 - J : 고급매입형Ø25 (Luxury buried type) Aluminum guide
 - Y : 일반매입형Ø30 (Normal buried type) Plastic guide
 - L : 고급매입형Ø30 (Luxury buried type) Aluminum guide
- 동작기능 (Operation)
 - 4B : 자기복귀 (Momentary)
- 접점구성 (Contacts)
 - 1 : 1a1b 2 : 2a2b
- 색상 (Color)
 - R : 적 (Red) Y : 황 (Yellow) G : 녹 (Green)



외형 및 도면 (External form/ Drawing)



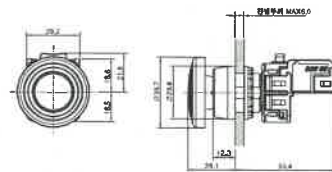
N형Ø22 플라스틱 돌출형
(Normal N-type plastic guide)



KGE - N4B1R (자기복귀, Momentary)



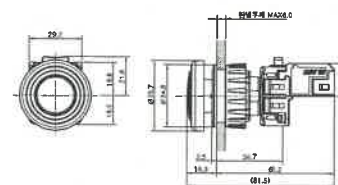
H형Ø22 알루미늄 돌출형
(High-grade H-type aluminum guide)



KGE - H4B1R (자기복귀, Momentary)



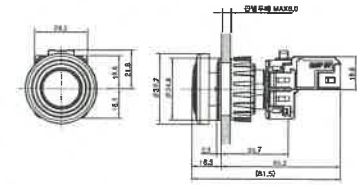
Y형Ø30 플라스틱 매입형
(Normal buried Y-type plastic guide)



KGE - Y4B1R (자기복귀, Momentary)



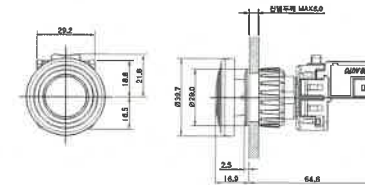
L형Ø30 알루미늄 매입형
(Luxury buried L-type aluminum guide)



KGE - L4B1R (자기복귀, Momentary)



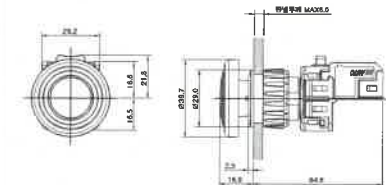
C형Ø25 플라스틱 매입형
(Normal buried C-type plastic guide)



KGE - C4B1R (자기복귀, Momentary)



J형Ø25 알루미늄 매입형
(Luxury buried J-type aluminum guide)



KGE - J4B1R (자기복귀, Momentary)

Ø22/25/30 제어용 스위치

조광 비상 정지용 누름버튼 스위치(Lamp emergency push button switch)

형명 구성 (Name composition)

KGEX N H Y J L

EX : 조광 비상 정지용 누름버튼 (Lamp emergency push button)

조작부 형태 (Actuator form)

N : 일반형Ø22 (Normal type) Plastic guide

H : 고급형Ø22 (High-grade type) Aluminum guide

C : 일반매입형Ø25 (Normal buried type) Plastic guide

J : 고급매입형Ø25 (Luxury buried type) Aluminum guide

Y : 일반매입형Ø30 (Normal buried type) Plastic guide

L : 고급매입형Ø30 (Luxury buried type) Aluminum guide

동작기능 (Operation)

4B : 자기복귀 (Momentary)

정격전압 (Voltage)

D2 : 12/24V d.c V2 : 110/220V a.c

접점구성 (Contacts)

1 : 1a1b 2 : 2a2b

색상 (Color)

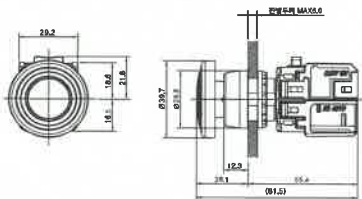
R : 적 (Red) Y : 황 (Yellow) G : 녹 (Green)



외형 및 도면 (External form/ Drawing)



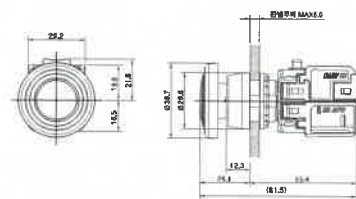
N형Ø22 플라스틱 돌출형
(Normal N-type plastic guide)



KGEX - N4BD21R(자기복귀, Momentary) / 12~24V d.c
KGEX - N4BV21R(자기복귀, Momentary) / 110~220V a.c



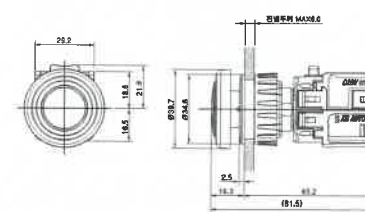
H형Ø22 알루미늄 돌출형
(High-grade H-type aluminum guide)



KGEX - H4BD21R(자기복귀, Momentary) / 12~24V d.c
KGEX - H4BV21R(자기복귀, Momentary) / 110~220V a.c



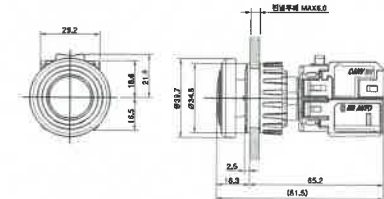
C형Ø25 플라스틱 매입형
(Normal buried C-type plastic guide)



KGEX - C4BD21R / 12~24V d.c
KGEX - C4BV21R / 110~220V a.c



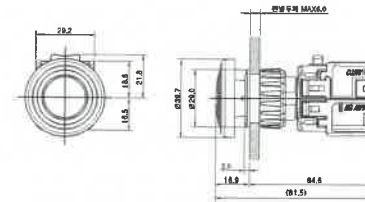
J형Ø25 알루미늄 매입형
(Luxury buried J-type aluminum guide)



KGEX - J4BD21R / 12~24V d.c
KGEX - J4BV21R / 110~220V a.c



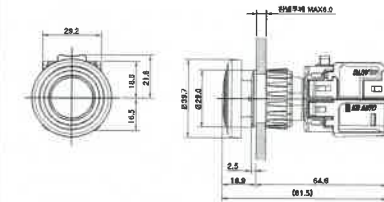
C형Ø25 플라스틱 매입형
(Normal buried C-type plastic guide)



KGEX - C4BD21R / 12~24V d.c
KGEX - C4BV21R / 110~220V a.c



J형Ø25 알루미늄 매입형
(Luxury buried J-type aluminum guide)



KGEX - J4BD21R / 12~24V d.c
KGEX - J4BV21R / 110~220V a.c

Ø22/25/30 제어용 스위치

비상 정지용 푸쉬록턴 리셋 스위치(Emergency push lock reset switch)

형명 구성 (Name composition)

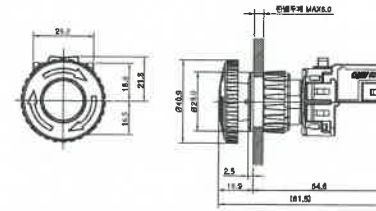
KGE E N 22 4R

- E : 비상정지용 누름버튼 (Emergency push lock turn reset button)
- 조작부 형태 (Actuator form)
 - N : 일반형Ø22 (Normal type) Plastic guide
 - H : 고급형Ø22 (High-grade type) Aluminum guide
 - C : 일반매입형Ø25 (Normal buried type) Plastic guide
 - J : 고급매입형Ø25 (Luxury buried type) Aluminum guide
 - Y : 일반매입형Ø30 (Normal buried type) Plastic guide
 - L : 고급매입형Ø30 (Luxury buried type) Aluminum guide
- 동작기능 (Operation)
 - 4R : 푸쉬록턴 리셋 (Push lock turn reset)
- 접점구성 (Contacts)
 - 1 : 1a1b 2 : 2a2b
- 색상 (Color)
 - R : 적 (Red) G : 녹 (Green)

*상부 비상 리셋 EMO, EMS 명판 각인 가능

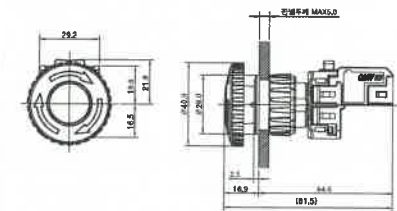


C형Ø25 플라스틱 매입형
(Normal buried C-type plastic guide)



KGE - C4R1R (푸쉬록턴 리셋, Push lock turn reset)

J형Ø25 알루미늄 매입형
(Luxury buried J-type aluminum guide)



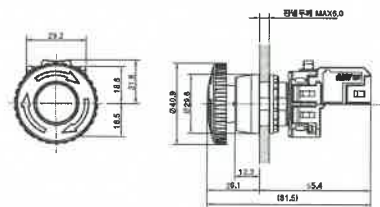
KGE - J4R1R (푸쉬록턴 리셋, Push lock turn reset)

외형 및 도면 (External form/ Drawing)

KS C IEC 60947-5-1 인증

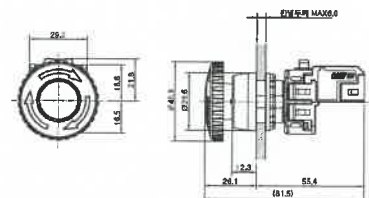


N형Ø22 플라스틱 돌출형
(Normal N-type plastic guide)



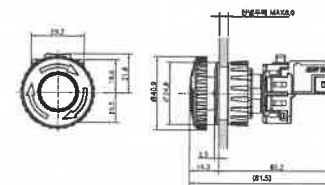
KGE - N4R1R (푸쉬록턴 리셋, Push lock turn reset)

H형Ø22 알루미늄 돌출형
(High-grade H-type aluminum guide)



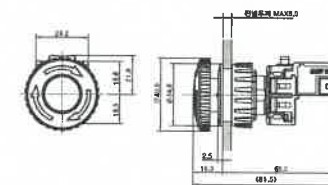
KGE - H4R1R (푸쉬록턴 리셋, Push lock turn reset)

Y형Ø30 플라스틱 매입형
(Normal buried Y-type plastic guide)



KGE - Y4R1R (푸쉬록턴 리셋, Push lock turn reset)

L형Ø30 알루미늄 매입형
(Luxury buried L-type aluminum guide)



KGE - L4R1R (푸쉬록턴 리셋, Push lock turn reset)

Ø22/25/30 제어용 스위치

조광 비상 정지용 푸쉬록턴 리셋 스위치 (Lamp emergency push lock turn reset switch)

형명 구성 (Name composition)



- EX : 조광 비상 정지용 누름버튼 (Lamp emergency push button)
- 조작부 형태 (Actuator form)
- N : 일반형Ø22 (Normal type) Plastic guide
- H : 고급형Ø22 (High-grade type) Aluminum guide
- C : 일반매입형Ø25 (Normal buried type) Plastic guide
- J : 고급매입형Ø25 (Luxury buried type) Aluminum guide
- Y : 일반매입형Ø30 (Normal buried type) Plastic guide
- L : 고급매입형Ø30 (Luxury buried type) Aluminum guide
- 동작기능 (Operation)
- 4R : 푸쉬록턴 리셋 (Push lock turn reset)
- 점적전압 (Voltage)
- D2 : 12/24V d.c V2 : 110/220V a.c
- 접점구성 (Contacts)
- 1 : 1a1b 2 : 2a2b
- 색상 (Color)
- R : 적 (Red) G : 녹색 (Green)

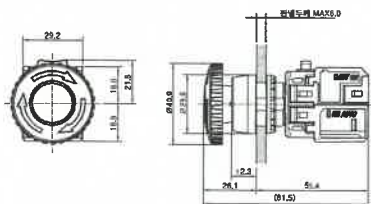


※상부 비상 리셋 EMO, EMS 명판 각인 기능

외형 및 도면 (External form/ Drawing)



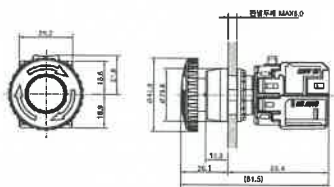
N형Ø22 플라스틱 돌출형
(Normal N-type plastic guide)



KGEX - N4RD21R (푸쉬록턴 리셋, Push lock turn reset) / 12~24V d.c
KGEX - N4RV21R (푸쉬록턴 리셋, Push lock turn reset) / 110~220V a.c



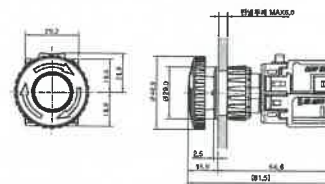
H형Ø22 알루미늄 돌출형
(High-grade H-type aluminum guide)



KGEX - H4RD21R(푸쉬록턴 리셋, Push lock turn reset) / 12~24V d.c
KGEX - H4RV21R(푸쉬록턴 리셋, Push lock turn reset) / 110~220V a.c



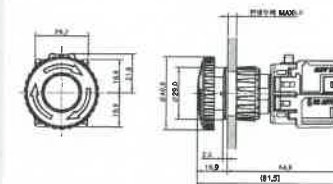
C형Ø25 플라스틱 매입형
(Normal buried C-type plastic guide)



KGEX - C4RD21R(푸쉬록턴 리셋, Push lock turn reset) / 12~24V d.c
KGEX - C4RV21R(푸쉬록턴 리셋, Push lock turn reset) / 110~220V a.c



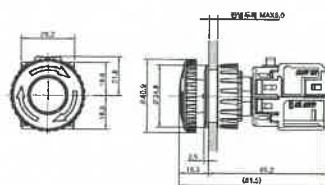
J형Ø25 알루미늄 매입형
(Luxury buried J-type aluminum guide)



KGEX - J4RD21R(푸쉬록턴 리셋, Push lock turn reset) / 12~24V d.c
KGEX - J4RV21R(푸쉬록턴 리셋, Push lock turn reset) / 110~220V a.c



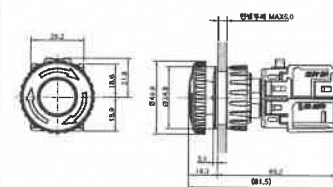
Y형Ø30 플라스틱 매입형
(Normal buried Y-type plastic guide)



KGEX - Y4RD21R(푸쉬록턴 리셋, Push lock turn reset) / 12~24V d.c
KGEX - Y4RV21R(푸쉬록턴 리셋, Push lock turn reset) / 110~220V a.c



L형Ø30 알루미늄 매입형
(Luxury buried L-type aluminum guide)



KGEX - L4RD21R(푸쉬록턴 리셋, Push lock turn reset) / 12~24V d.c
KGEX - L4RV21R(푸쉬록턴 리셋, Push lock turn reset) / 110~220V a.c

Ø22/25/30 제어용 스위치

KG S/W 심플 마크 제작 (KG S/W Symbol Mark)

특징 (Features)

1. 심플마크등의 데이터를 제시할 경우 사용자가 원하는 모양 그대로 제작이 가능합니다.
(When presenting data, such as the symbol that you want in the form as it is making this possible.)
2. 심플마크는 컴퓨터 레이저 조각 기계로 제작되며 조각되는 부분을 레이저로 태우는 기법은 기존 인쇄방법보다 효율적이며 긴 수명을 유지합니다.
(Symbol mark is making a computer laser engraving machine, laser engraving is part of burning technique is more efficient than traditional printing methods and keep a long life.)
3. 심플마크가 적용된 스위치는 FA장비, CD기기, 레이저장비 등 다양한 산업현장에 적용이 가능합니다.
(Symbol mark is applied to the switch is a FA equipment, CD equipment, laser equipment, etc. can be applied to a wide of industrial site.)

적용 모델 : KG-N, H, C, J, Y, L TYPE

● 심플 마크(Symbol mark)

ⓘ	⓪	START	STOP	ON	OFF	UP	DN	FOR	REV
S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
기동	정지	상승	하강	고속	저속	정립	감압	대기	비상
S11	S12	S13	S14	S15	S16	S17	S18	S19	S20
↑	←	↻	⏻	✕	↺	✳	↓	🔒	⚠
S21	S22	S23	S24	S25	S26	S27	S28	S29	S30
1	2	3	4	5	6	7	8	9	10
S31	S32	S33	S34	S35	S36	S37	S38	S39	S40

● 심플 마크 적용예시 (Symbol mark)

⓪ KG - N TYPE (예시 : KGX-NMV21RS24)



⓪ KG - J TYPE (예시 : KGX-JMV21RS3)



⓪ KG - H TYPE (예시 : KGX-HMV21RS29)



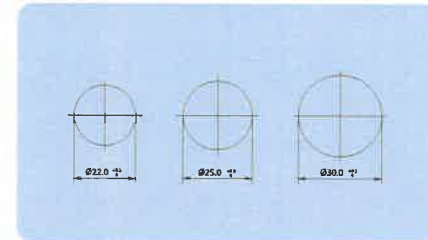
⓪ KG - L TYPE (예시 : KGX-LMV21RS9)



*KG-J 타입 자기유지 제품 적용 불가.

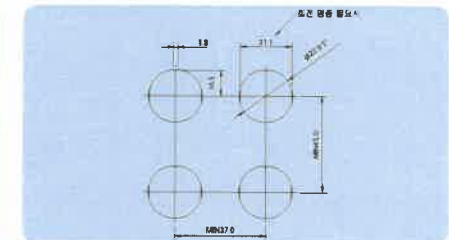
● 사용방법 (User guide)

⓪22 너트 치수 (Nut cutting size)



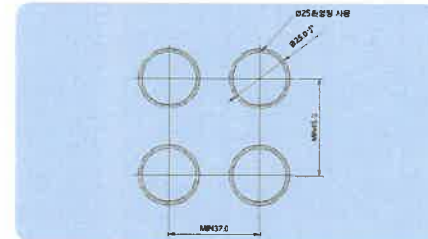
[판넬 가공치수]

⓪22 일반형 취부사 (Ø22 Normal type attaching)



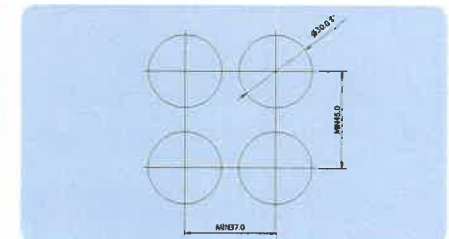
[판넬 연속 가공치수]

⓪25 환형형 취부사 (Ø25 normal buried type attaching)



[판넬 연속 가공치수]

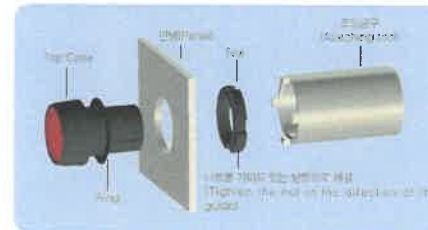
⓪30 고급 대원형 취부사 (Ø30 luxury buried type attaching)



[판넬 연속 가공치수]

● Ø25 너트 취부방법 및 제품 조립 순서

The method which attaches and assembly order



Ø22/25/30 제어용 스위치



KG-EG22



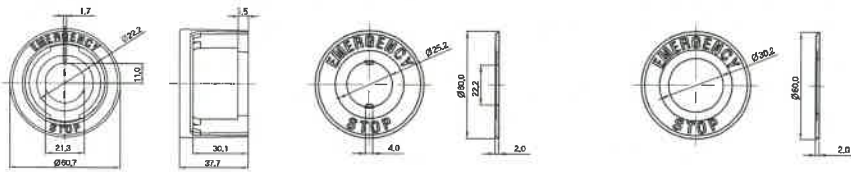
KG-EN22/25



KG-EN30

비상 가이드

(Emergency guide)



EMS-22



EMS-25

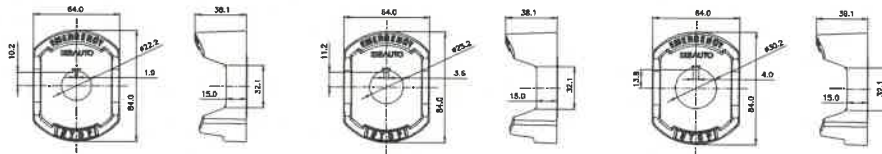


EMS-30



STOP

STOP 기본
OFF 주문사항
무관한 주문사항



주의사항
Attention

- 판넬 가공은 위와 같이 필요에 따라 선택 하여 주십시오.
(Panel cutting is above by a necessity to select)
- 부착 판넬의 두께는 1~6mm
(Panel thickness 1~6mm)
- LAMP TYPE은 램프 단자와 스위치 단자의 배선이 바뀌지 않도록 주의 할 것.
(Lamp terminal and terminal wiring not to be exchange it will have attention)
- 부착 너트는 조임 토크를 20kgf · cm 이하로 할 것
(Attaching nut torque is below 20kgf · cm)
- 단자 볼트의 조임 토크는 5kgf · cm 이하로 할 것
(Attaching bolt torque is below 5kgf · cm)
- 단자 볼트는 M3.5와 링 와셔 사용.
(Terminal bolt used ring washer and M3.5)

부품 (Parts)

구 분 (Division)	모 양 (Form)	형 식 (Code)	설 명 (Explain)															
접점 유니트 (Contact unit)		KG-10	기본 접점 1a1b로 설계 되었으며 픽싱 플레이트와 조립 및 탈부착이 용이함. (Contact block was planned basic 1a1b and the maximum 4a4b until there is a possibility of attaching)															
픽싱 플레이트 (Fixing plate)		KG-F	조작부 및 접점 유니트와의 탈부착 용이 (Operating or contactor part attaching and remove is easy)															
보호커버 (Actuator Protect cover)		KG-22G	보호커버 (Ø22)															
		KG-25G	보호커버 (Ø25)															
		KG-30G	보호커버 (Ø30)															
조임공구 (Attaching tool)		KG-40	제어 스위치 너트 조임시 사용 (Use the attaching panel)															
접점블록 보호커버 (Contact block protect cover)		KG-50	접점부 전기 통전시 감전 보호 (When authorizing an electricity in contact block prevents an electric shock)															
램프블록 보호커버 (Lamp block protect cover)		KG-60	조광부 전기 통전시 감전 보호 (When authorizing an electricity in lamp block prevents an electric shock)															
접점 블록 완전보호커버 (Contact block full protect cover)		KG-70	접점부 전기 통전시 감전 보호 (When authorizing an electricity in contact block prevents an electric shock)															
조광 블록 완전보호커버 (Lamp block full protect cover)		KG-80	조광부 전기 통전시 감전 보호 (When authorizing an electricity in lamp block prevents an electric shock)															
실리콘 보호커버 (Protect cover)		KG-S22 KG-S25 KG-S30	Ø22, Ø25, Ø30 제어 스위치 사용시 방수 보호 (Operating part water protector Ø22, Ø25, Ø30)															
안전 보호커버 (Safety actuator protect cover)		KG-GR 22C/25C/30C 22Y/25Y/30Y	 <table border="1"> <tr> <td>GR22</td> <td>GR25</td> <td>GR30</td> </tr> <tr> <td>C</td> <td>Ø22</td> <td>Ø25</td> <td>Ø30</td> </tr> <tr> <td>L</td> <td>13.9</td> <td>3.0</td> <td>4.0</td> </tr> <tr> <td>H</td> <td>21.3</td> <td>23.0</td> <td>28.0</td> </tr> </table>	GR22	GR25	GR30	C	Ø22	Ø25	Ø30	L	13.9	3.0	4.0	H	21.3	23.0	28.0
GR22	GR25	GR30																
C	Ø22	Ø25	Ø30															
L	13.9	3.0	4.0															
H	21.3	23.0	28.0															

KG M 제어용 스위치

특징 (Features)

1. 조작부와 접점부 상·하 분리형으로 설계되었습니다. (Designed to separate Actuator part and Contact part.)
2. 취부홀 $\varnothing 22$, $\varnothing 25$, $\varnothing 30$ 로 설계하여 선택 사용이 용이 합니다. (Designed as $\varnothing 22$, $\varnothing 25$, and $\varnothing 30$ of the hole, convenient for selection.)
3. 스냅 동작 접점 블록은 기본 1a1b로 설계되었습니다. (The snap action contact block is designed as 1a1b basically.)
4. 광원 출력부는 LED를 기본으로 제작되었습니다. (A light source is designed for a LED.)

성능 (Performance)

항목(List)	종류(Items)	KG M Series 제어용 스위치($\varnothing 22$, $\varnothing 25$, $\varnothing 30$)
정격용량 (Rating)		125V d.c 1A / 250V a.c 5A
절연저항 (Insulating resistance)		100M Ω 상(Min 100M Ω)
내전압 (Withstand voltage)		2,500V a.c, 50/60Hz에서 1분간(2,500V a.c, 50/60Hz 1min)
접촉저항 (Contact resistance)		50m Ω 이하
내진동 (Vibration protection)		10~55Hz 폭진폭 3mm(10~55Hz Vibration Width 3mm)
내충격 (Shock protection)		막 50G(500%)
사용주의 온도 (Ambient temperature)		-10 $^{\circ}$ C~+50 $^{\circ}$ C
사용주의 습도 (Relative humidity)		45~85% RH
개폐연도 (Open/Close time)		최대 30회/분(Max 30/1min)
수명 (Lifetime)	전기적 (Electrical)	10만회 이상/1,800h(Min 0.1mil/1,800h)
	기계적 (Mechanical)	50만회 이상/1,800h(Min 0.5mil/1,800h)

외관 구성 (Name composition)

KG M H J L V2 V3 1 2 R W G M1

X : 조광형 누름버튼 (Lamp push button switch)

조작부 형태 (Actuator form)

H : 고급형 $\varnothing 22$ (High-grade type) Aluminum guide

J : 고급매입형 $\varnothing 25$ (Luxury buried type) Aluminum guide

L : 고급매입형 $\varnothing 30$ (Luxury buried type) Aluminum guide

동작기능 (Operation)

M : 자기복귀 (Momentary) A : 자기유지 (Alternate)

정격전압 (Voltage)

D1 : 110/125V d.c D2 : 12/24V d.c D3 : 220V d.c

V2 : 110/220V a.c V3 : 380V a.c

접점구성 (Contacts)

1 : 1a1b 2 : 2a2b

색상 (Color)

R : 적 (Red) W : 백 (White) G : 녹 (Green)

심볼 마크 번호 (Symbol mark No.)

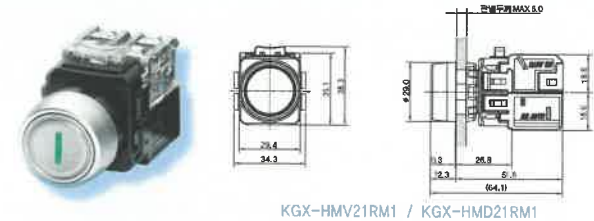
M1~40

심볼 마크 적용예시 (Symbol mark)

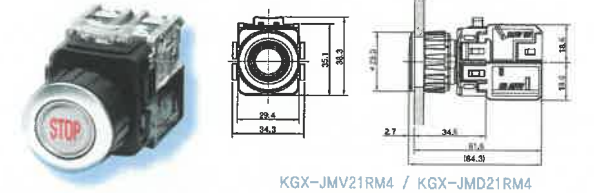
M1	M2	M3	M4	M5	M6	M7	M8	M9	M10
M11	M12	M13	M14	M15	M16	M17	M18	M19	M20
M21	M22	M23	M24	M25	M26	M27	M28	M29	M30
M31	M32	M33	M34	M35	M36	M37	M38	M39	M40

외관 및 도면 (Appearance & Drawing)

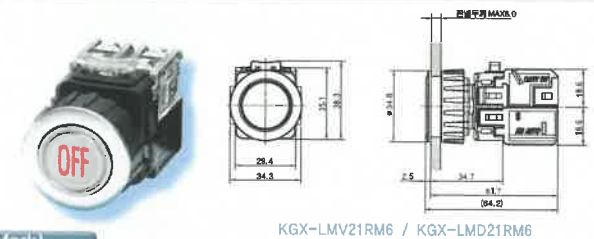
H형 $\varnothing 22$ 알루미늄 돌출형
(High-grade H-type aluminum guide)



J형 $\varnothing 25$ 알루미늄 매입형
(Luxury buried J-type aluminum guide)



L형 $\varnothing 30$ 알루미늄 매입형
(Luxury buried L-type aluminum guide)



KG S/W 심볼 마크 제작 (KG S/W Symbol Mark)

특징 (Features)

1. 심볼마크 등의 데이터를 제시할 경우 사용자가 원하는 모양 그대로 제작이 가능합니다.
(If you present a data for a symbol mark, we can make it as you want.)
2. 심볼마크는 컴퓨터 레이저 조각 기계로 제작되며 조각되는 부분을 레이저로 태우는 기본은 기존 인쇄방법보다 효율적이며 긴 수명을 유지합니다.
(Symbol mark is made of laser sculpture, which is more efficient and long-lasting than existing printing method.)
3. 심볼마크가 적용된 스위치는 FA장비, CD기기, 레이저장비 등 다양한 산업현장에 적용이 가능합니다.
(The switches applied to the symbols can be applied to various industry sites, such as FA equipment, CD equipment, Laser equipment, and etc.)

심볼마크 적용예시 (Symbol mark)

◎ KGM - H TYPE



◎ KGM - J TYPE



◎ KGM - L TYPE



특징 (Features)

1. 전면, 후면 완전 방수 IP-68 구조
*Fully waterproof IP-68 structure for the front and the rear side
2. 내부 릴레이 접점사용으로 AC250V 0.3A 용량 실현
*Using built-in relay contact, fulfill capacity of AC250V, 0.3A
3. 초광범위 AC110/220V / DC12/24V 로 생산
*Illuminated Push button switch AC110/220V & DC12/24V
4. **CE**

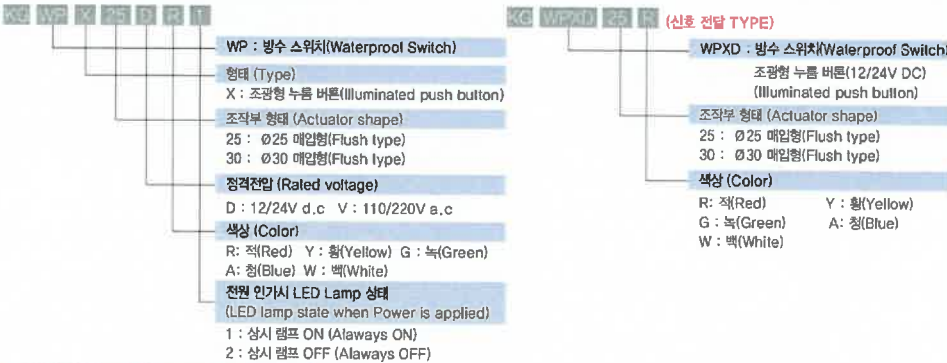
IP-68 방수 스위치



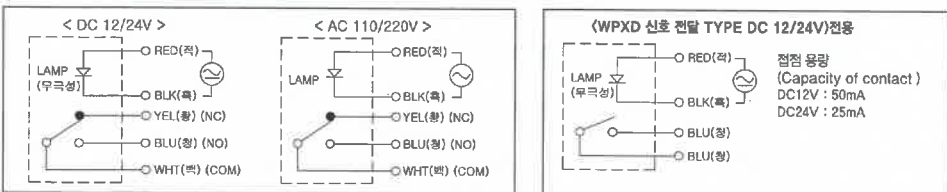
성능 (Performance)

항목 (List)	조광형 누름 버튼 방수 스위치 (Waterproof & Illuminated Push Button Switch)				
형명 (Model)	WP Series				
정격 (Rating)	DC 12/24V	DC 24V	AC 110/220V	AC 110/220V	
접점 용량 (Capacity of contact)	250VAC 0.3A				
절연 저항 (Insulation resistance)	Min. 100MΩ (500V d.c.)				
내전압 (Dielectric strength)	1,500V a.c 1min				
접촉 저항 (Contact resistance)	Max. 100mΩ				
내진동 (Vibration resistance)	10~55Hz, double amplitude of 3mm				
내충격 (Shock resistance)	약 50G (500m/s ²)				
사용 온도 (Operation temperature)	-10°C ~50°C (No freezing)				
사용 습도 (Operation humidity)	45~85% RH				
개폐 빈도 (Open/close time)	Max. 30 times / min.				
기계적 수명 (Mechanical life time)	80,000 times				
전기적 수명 (Electrical life time)	100,000 times (at rating)				
보호 등급 (Protection degree)	IP68				
램프 소비전류 (Current consumption)	입력 전압 (Input voltage)	DC12V	DC24V	AC110V	AC220V
	기본점등 상태 (Basic lighting state)	40mA	80mA	180mA	390mA
	자기유지 동작 (Self-hold function)	90mA	160mA	180mA	390mA

모델 구성 (Name composition)

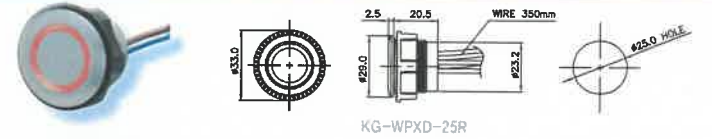


회로도 (Circuit diagram)

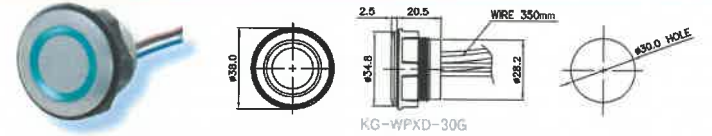


외관 및 도면 (Appearance & Drawing)

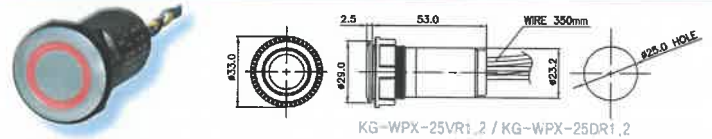
Ø25 매입형(Flush type) DC12/24V 전용(WPXD)



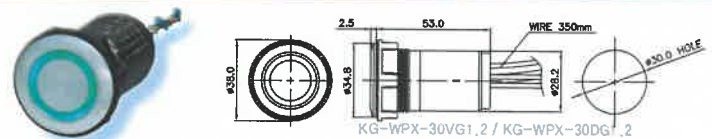
Ø30 매입형(Flush type) DC12/24V 전용(WPXD)



Ø25 매입형(Flush type)



Ø30 매입형(Flush type)



제품 특성 설명 (Basic information)

1. 본 제품은 PCB 기판형 릴레이가 실장된 제품으로 반드시 램프의 전원을 연결하셔야 제품이 동작합니다.
* This switch has a built-in relay on PCB, so apply power supply so that the switch could be operated.
2. 본 제품은 70W이하의 부하를 직접 구동 할 수 있으나 주로 릴레이 및 전자 접촉기등을 구동 시키는 신호 전달용으로 사용 하시길 권장 드립니다.
* This switch is available to control a load below 70W directly, but recommend using this switch to operate a relay or electronic contactor.
3. 상시 ON 제품은 램프에 점등된 상태에서 버튼을 누를때 마다 점등이 꺼지며 부하를 구동 시킵니다.
* For Always ON model, whenever press the button, the LED lamp is turned OFF and operate a load.
4. 상시 OFF 제품은 램프가 꺼진 상태에서 버튼을 누를때 마다 점등되며 부하를 구동 시킵니다.
* For Always OFF model, whenever press the button, the LED lamp is turned ON and operate a load.

주의사항 (Cautions)

1. 사용 전압 및 허용 전류를 확인 후 결선 하시기 바랍니다.
* Connect wires after verifying the operational voltage and allowed current.
2. 본제품은 방수용 스위처로 실내외 사용이 가능하나 발화점이 아니므로 가연성 및 폭발성 가스가 있는 장소에서는 사용 하지 마시기 바랍니다.
* This waterproof switch can be used at outdoors, but do not use this switch at a place exposed to combustible gas or explosive gas.
3. 제품 배선시에 램프 WIRE가 심하게 당겨지지 않도록 주의 하시기 바랍니다.
* When forcefully fastening, it could cause damage to product.