

# Control Switch

J2 Series



Pilot Light



Non-Illuminated  
Push Button Switch



Illuminated  
Push Button Switch



Non-illuminated  
Selector Switch



Illuminated  
Selector Switch



Key Selector Switch



Non-illuminated  
Emergency Stop Switch



Illuminated  
Emergency Stop Switch



Non-Illuminated  
Mushroom Push Button Switch



Illuminated  
Mushroom Push Button Switch

## Part Number Description

**J2** - **1** **2** **3** **4** **5** **6** - **7**

<b>1</b> Operator Type	1 : Pilot Lamp	2 : Momentary Push Button	3 : Alternative Push Button	
	4 : 2 Position Selector	5 : 3 Position Selector	6 : 2 Position Key	7 : 3 Position Key
	8 : Illuminated Emergency Stop	9 : Non-Illuminated Emergency Stop		
<b>2</b> Illumination & Shape	1 : Non-Illuminated Round	7 : Illumination Round(LED)		
<b>3</b> Contact	0 : None	10 : 1NO(J2-10)	01 : 1NC(J2-01)	20 : 1NO + 1NO(J2-10 X 2ea)
<b>4</b> Operating Head Type	No mark : Push Button(Non-Illuminated), Selector, Key, Emergency Stop			
	T : Flat Head Push Button	Q : Push Button(Illuminated)	M : Mushroom Head	
<b>5</b> Color	No mark: Selector(Non-Illuminated), Key, Emergency Stop		R : Red	G : Green
	Y : Yellow	B : Blue	W : White	K : Black
<b>6</b> Rated Voltage	D6 : 6VDC	D12 : 12VDC	D4 : 24VDC	
	A1 : 110VAC	A2 : 220VAC		
<b>7</b> Selector, Key Operator Function	2 : 2 Step Maintained		3 : 3 Step Maintained	

※ Illuminated black color is only the lens is black translucent and the LED is white.

※ Non-illuminated pushbutton, selector, key, emergency stop switch does not mark operating head type.

※ Non-dimming selector, key switch, emergency stop switch do not mark color.

Rev. 2/14

Data subject may change without notice.

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Industrial Controls Catalog

II - III - 53

**KACOM**

# Control Switch

## J2 Series

### General Specification

Specifications	Ambient Temperature	- 20℃ - +55℃(with no icing)				
	Ambient Humidity	45% - 85%RH(with no icing)				
	Storage Temperature	- 45℃ - +80℃				
	Storage Humidity	Min. 90%RH				
	Protection Grade	Front side : IP65(IEC60529) / Selector, Key : IP40				
	Insulation Resistance	100M $\Omega$ min.(at 500VDC)				
	Dielectric strength	Contact	2,500V for 1 minute			
		LED	2,000V for 1 minute			
	Vibration Resistant	Durability	500m/s <sup>2</sup>			
		Malfunction	200m/s <sup>2</sup>			
Life Cycles	Mechanical	Push Button Switch : 2,000,000 time		Selector, Key, Emergency Stop : 500,000 time		
	Electrical	100,000 time				
Contact Ratings	Rated Insulation Voltage	600V				
	Maximum switching current	10A				
	Rated current @ voltage	24V	120V	240V	380V	
	AC 50/60Hz	Resistive Load(AC-12)	10A	10A	6A	2A
		Inductive Load(AC-15)	10A	6A	3A	1.9A
	Dc	Resistive Load(DC-12)	8A	2.2A	1.1A	-
		Resistive Load(DC-13)	4A	1.1A	0.55A	-
	Terminal bolt	M3.5 (Torque : 1.3N-m)				
Suitable wire standard	14 - 16AWG					

\*Min using load reference 3VAC/DC 5mA (can use range depends on the environment and the load type) The contact is silver contact

\* Contact Material : Ag alloy (24K gold plate)

LED	Color	R : Red, G : Green, Y : Yellow, B : Blue, W : White, K : Black			
	Specifications	6V AC/DC, 12V AC/DC, 24V AC/DC, 110V AC/DC, 220V AC/DC			
	Rated Voltage	D6 : 6VDC			
		D12 : 12VDC			
		D4 : 24VDC			
	Rated Current	A1 : 100 - 120VAC(50/60Hz)			
		A2 : 200 - 240VAC(50/60Hz)			
Rated Current	15mA				
Life Cycles	50,000hrs				

\* LED working 50% less than the original brightness after 50000 hours.







## Product Selection

Operator Type	Ø	Contact		Color	Part Number	Rated Voltage
		Configuration	Maximum Combined			
Illuminated Pilot Lamp Switch  	Ø22, Ø25			Red	J2-170TR	D6(6VDC) D12(12VDC) D4(24VDC) A1(110VAC) A2(220VAC)
				Green	J2-170TG	
				Blue	J2-170TB	
				Yellow	J2-170TY	
				White	J2-170TW	
				Black	J2-170TK	
				Non-Illuminated Push Button Momentary Switch  	Ø22, Ø25	
Green	J2-2110G					
Blue	J2-2110B					
Yellow	J2-2110Y					
White	J2-2110W					
Black	J2-2110K					
Non-Illuminated Push Button Alternative Switch  	Ø22, Ø25	1NO (J2-10)	3ea			Red
				Green	J2-3110G	
				Blue	J2-3110B	
				Yellow	J2-3110Y	
				White	J2-3110W	
				Black	J2-3110K	
				Illuminated Push Button Momentary Switch  	Ø22, Ø25	1NO (J2-10)
Green	J2-2710QG					
Blue	J2-2710QB					
Yellow	J2-2710QY					
White	J2-2710QW					
Black	J2-2710QK					
Illuminated Push Button Alternative Switch  	Ø22, Ø25	1NO (J2-10)	2ea			
				Green	J2-3710QG	
				Blue	J2-3710QB	
				Yellow	J2-3710QY	
				White	J2-3710QW	
				Black	J2-3710QK	





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### Product Selection

Operator Type	Ø	Contact		Color	Selector Type	Operator Function	Part Number	Rated Voltage
		Configuration	Maximum Combined					
2 Step Non-Illuminated Selector Switch								
	Ø22, Ø25	1NO (J2-10)	3ea	Black	Maintained	90°	J2-4110-2	-
3 Step Non-Illuminated Selector Switch								
	Ø22, Ø25	2NO (J2-10 X 2ea)	2ea	Black	Maintained	45° 45°	J2-5120-3	-
2 Step Illuminated Selector Switch								
	Ø22, Ø25	1NO (J2-10)	2ea	Red Green Blue Yellow White	Maintained	90°	J2-4710R-2 J2-4710G-2 J2-4710B-2 J2-4710Y-2 J2-4710W-2	D6(6VDC) D12(12VDC) D4(24VDC) A1(110VAC) A2(220VAC)
3 Step Illuminated Selector Switch								
	Ø22, Ø25	2NO (J2-10 X 2ea)	2ea	Red Green Blue Yellow White	Maintained	45° 45°	J2-5720R-3 J2-5720G-3 J2-5720B-3 J2-5720Y-3 J2-5720W-3	D6(6VDC) D12(12VDC) D4(24VDC) A1(110VAC) A2(220VAC)
2 Step Key Selector								
	Ø22, Ø25	1NO (J2-10)	3ea	Black	Maintained	90°	J2-6110-2	-
3 Step Key Selector								
	Ø22, Ø25	2NO (J2-10 X 2ea)	2ea	Black	Maintained	45° 45°	J2-7120-3	-



## Product Selection

Operator Type	Ø	Contact		Color	Part Number	Rated Voltage
		Configuration	Maximum Combined			
Non-Illuminated Ø40 Mushroom Push Button Momentary Switch 	Ø22, Ø25	1NO (J2-10)	2ea	Red	J2-2110MR	-
				Green	J2-2110MG	
				Blue	J2-2110MB	
				Yellow	J2-2110MY	
				White	J2-2110MW	
Non-Illuminated Ø40 Mushroom Push Button Alternative Switch 	Ø22, Ø25	1NO (J2-10)	2ea	Red	J2-3110MR	-
				Green	J2-3110MG	
				Blue	J2-3110MB	
				Yellow	J2-3110MY	
				White	J2-3110MW	
Illuminated Ø40 Mushroom Push Button Momentary Switch 	Ø22, Ø25	1NO (J2-10)	2ea	Red	J2-2710MR	D6(6VDC) D12(12VDC) D4(24VDC) A1(110VAC) A2(220VAC)
				Green	J2-2710MG	
				Blue	J2-2710MB	
				Yellow	J2-2710MY	
				White	J2-2710MW	
Illuminated Ø40 Mushroom Push Button Alternative Switch 	Ø22, Ø25	1NO (J2-10)	2ea	Red	J2-3110MR	D6(6VDC) D12(12VDC) D4(24VDC) A1(110VAC) A2(220VAC)
				Green	J2-3110GR	
				Blue	J2-3110MB	
				Yellow	J2-3110MY	
				White	J2-3110MW	






# Control Switch

## J2 Series

### Product Selection

Operator Type	Ø	Contact		Color	Part Number	Rated Voltage
		Configuration	Maximum Combined			
Illuminated Ø40 Emergency Switch						
	Ø22, Ø25	1NC (J2-10)	2ea	Red	J2-8701	D6(6VDC) D12(12VDC) D4(24VDC) A1(110VAC) A2(220VAC)
Non-Illuminated Ø40 Emergency Switch						
	Ø22, Ø25	2NC (J2-10 X 2ea)	3ea	Red	J2-9101	-

## Accessory

Operator Type	Contact	Contact Form	Color	Rated Voltage	Part Number
LED	-	-	Red Green Yellow Blue White	D6(6V AC/DC) D12(12V AC/DC) D4(24V AC/DC) A1(110V AC/DC) A2(220V AC/DC)	BA9S-JR BA9S-JG BA9S-JY BA9S-JB BA9S-JW
Standard Contact		1NO	-	-	J2-10
		1NC	-	-	J2-01
		2NO	-	-	J2-S20
		2NC	-	-	J2-S02
Optional Contact (*Sold separately)		1NO + 1NC	-	-	J2-S11

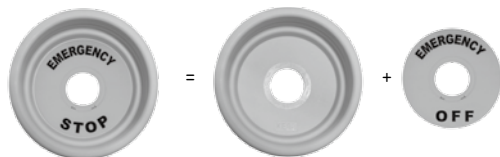
# Control Switch

## J2 Series

### Accessory

Operator Type	Hole size	Color	Part Number
Protection Cover	Ø22	Cover : C (Clear) Bottom : C (Clear)	KEG42
Name Plate	Ø22	Product : Yellow Letter : Black	HP119E
		Product : Yellow Letter : Red	HP119K
		Product : Yellow Letter : Black	HP119C
	Ø22	Product : White Letter : Black	HP119E-W(STOP)
		Product : White Letter : Red	HP119E-W(STOP-R)
		Product : Yellow Letter : Black	HP119E(OFF)
		Product : Yellow Letter : Red	HP119E(OFF-R)
		Product : White Letter : Black	HP119E-W(OFF)
		Product : White Letter : Red	HP119E-W(OFF-R)
	Ø22	Product : Yellow Letter : Black	HP119E-1(STOP)
		Product : White Letter : Black	HP119E-1W(STOP)
		Product : Yellow Letter : Red	HP119E-1(STOP-R)
Ø22	Product : Yellow Letter : Black	HP119E-1(OFF)	
	Product : Yellow Letter : Red	HP119E-1(OFF-R)	
	Product : White Letter : Black	HP119E-1W(OFF)	
Safety Guard	Ø22	Yellow	KEG82
		White	KEG82W
AL Safety Guard	Ø22	Yellow	KEG92
		White	KEG92W
Box	Ø22	Yellow	KEX-101Y

※ HP119 name panel is also suitable with KEG8, KEG9 series  
- Example of usage



※ Panel Thickness (Unit : mm)  
Switch only : 1.0 - 4.0  
Switch with guard : 1.0 - 2.2

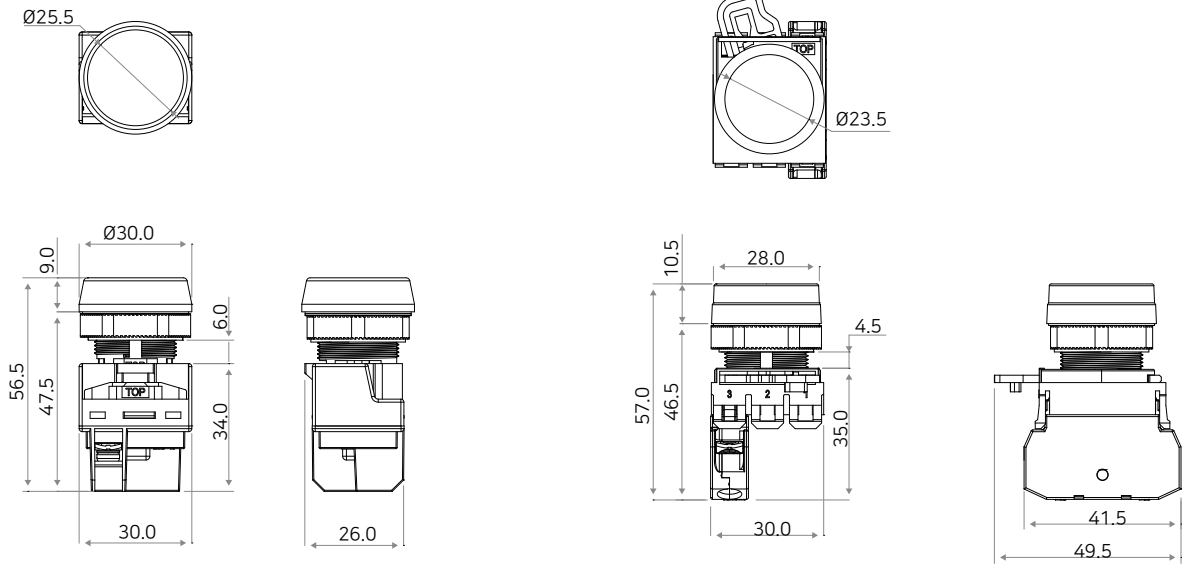


## Dimension

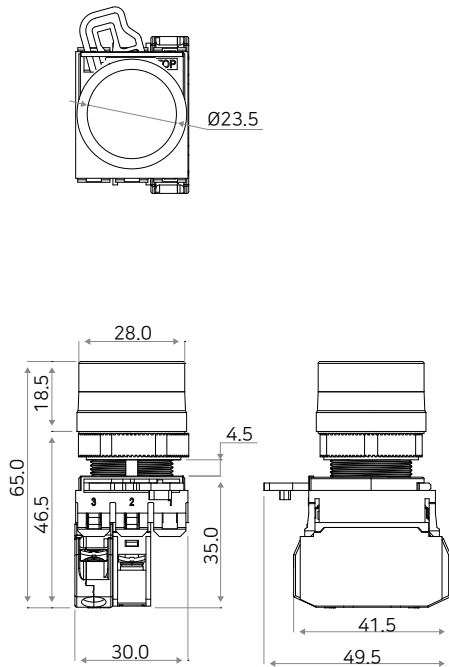
Unit : mm

### Pilot Lamp

### Push Button



### Illuminated Push Button



# Control Switch

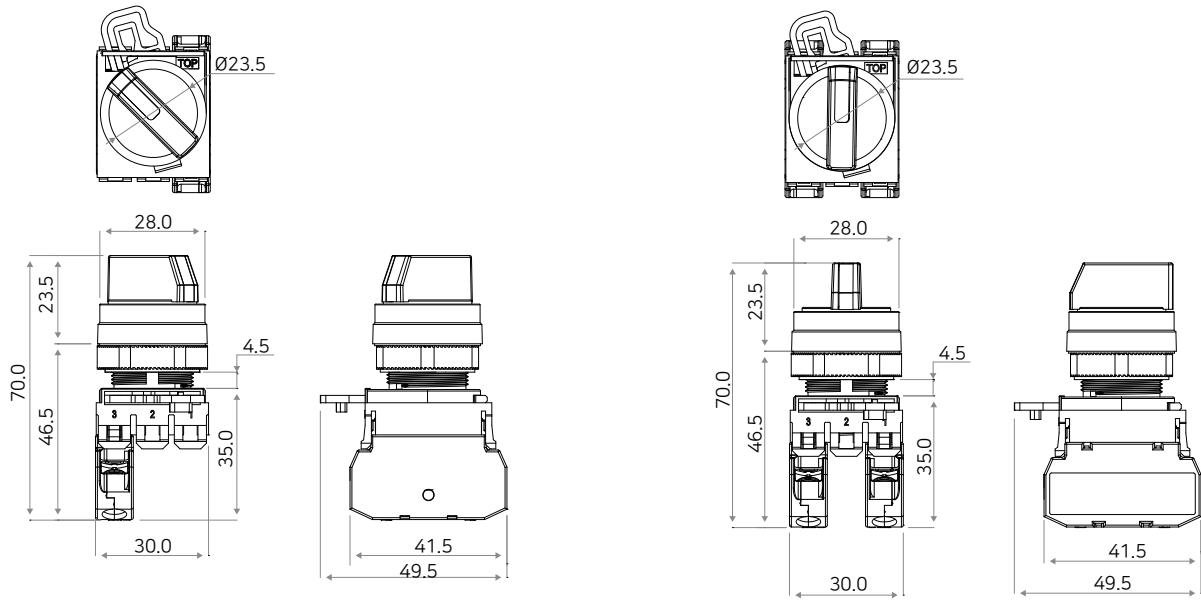
J2 Series

## Dimension

Unit : mm

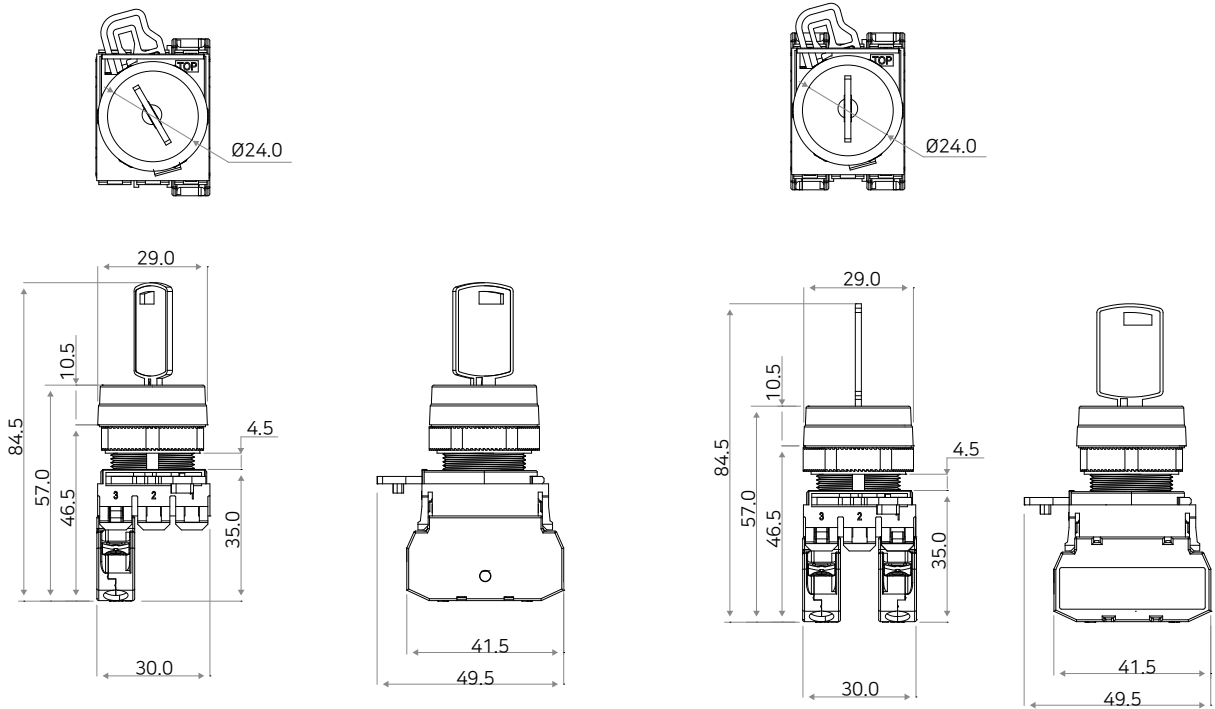
2 Step Selector Switch

3 Step Selector Switch



2 Step Key Selector

3 Step Key Selector

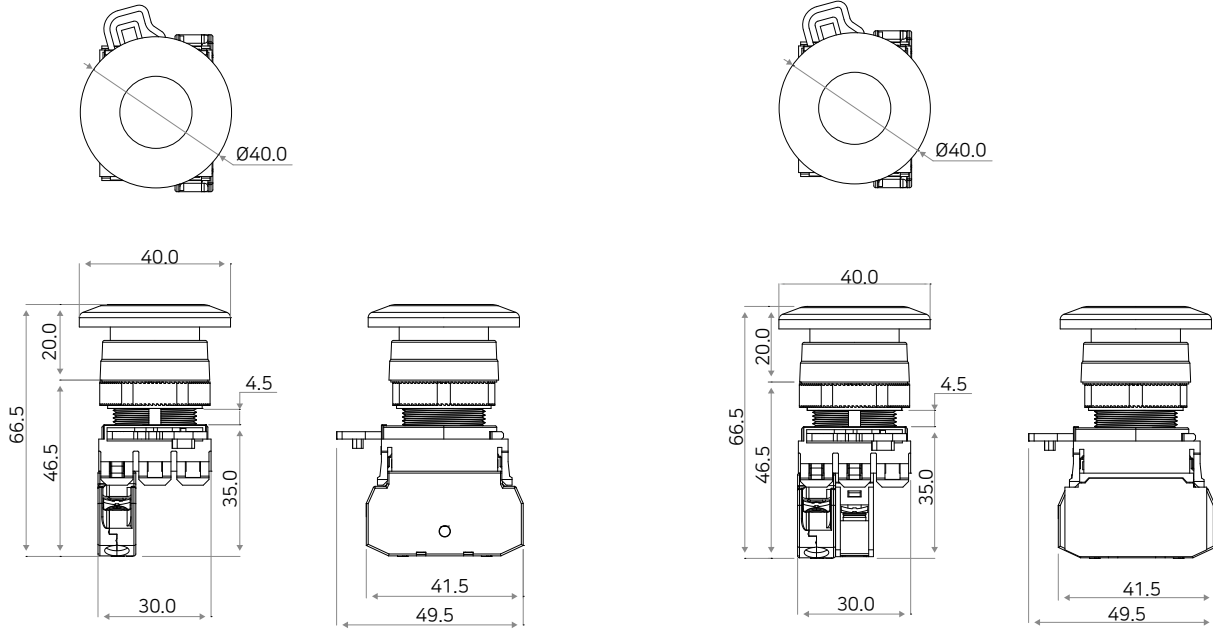


Dimension

Unit : mm

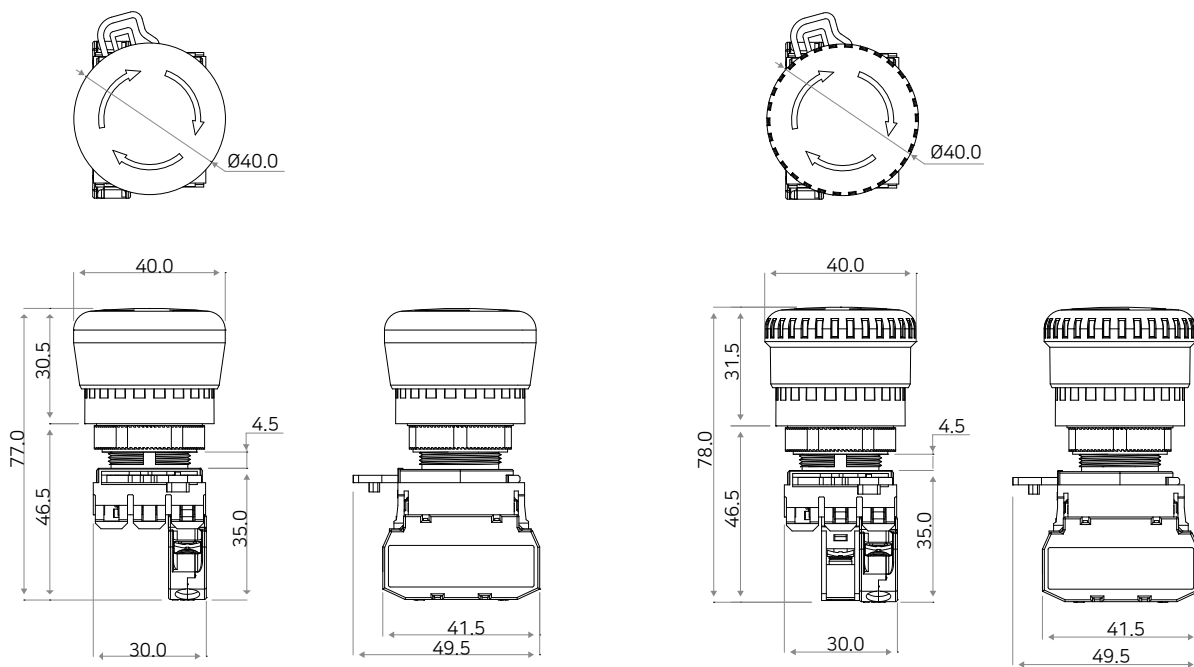
Mushroom Push Button Switch

Illuminated Mushroom Push Button Switch



Emergency Switch

Illuminated Emergency Switch



# Control Switch

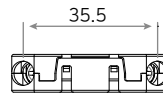
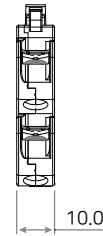
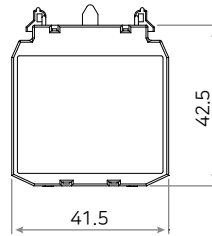
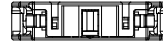
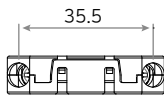
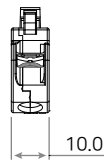
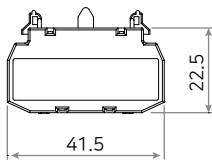
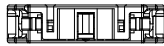
J2 Series

## Dimension

Unit : mm

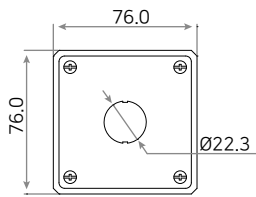
J2-10, J2-01

J2-20, J2-02, J2-11

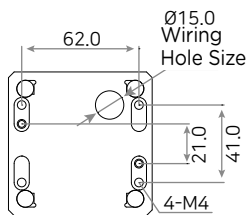


KEX-101Y

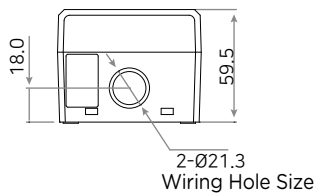
KEG42



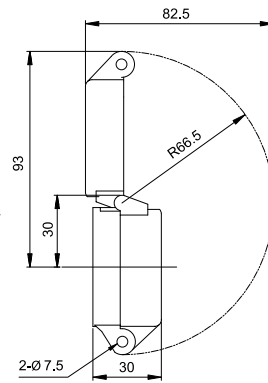
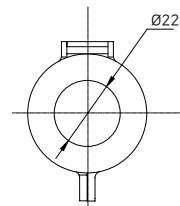
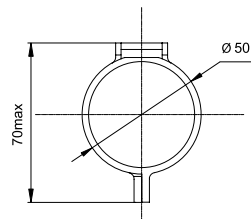
Top View



Bottom View



Side View



Color

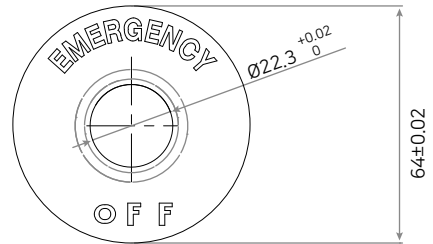
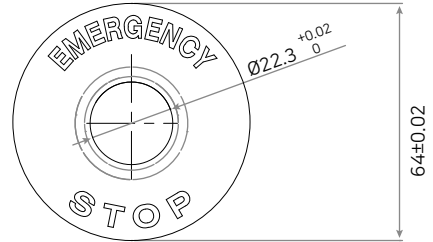
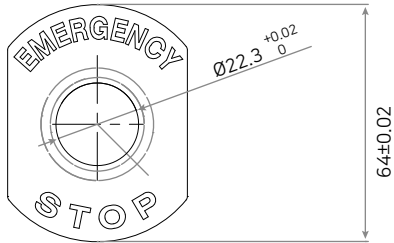
Red, Green, Orange, Blue  
Clear, Black

Dimension

Unit : mm

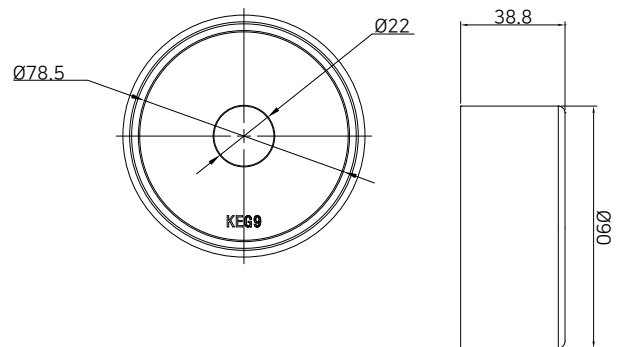
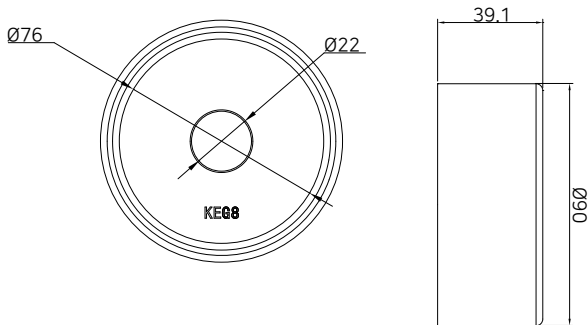
HP119

HP119-1 Series



KEG82

KEG92

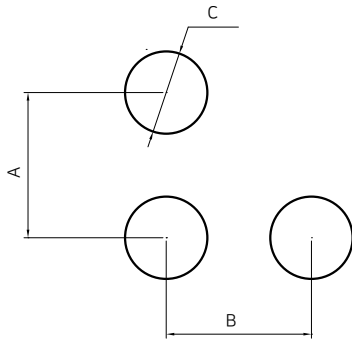


# Control Switch

J2 Series

## Pre-Caution

### Panel Cut-Out

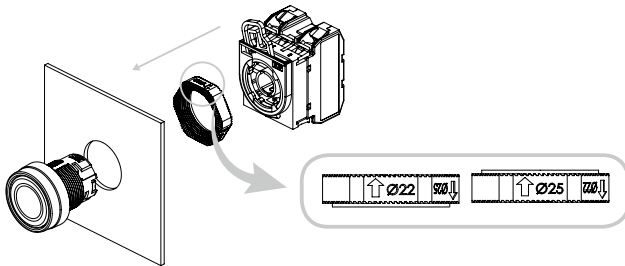


Panel Hole	C
Ø22	22.3
Ø25	25.3

Panel Thickness (Unit : mm)  
 With switch alone : 1.0 ~ 4.0  
 With optional product : 1.0 ~ 2.2

	A	B
Push Button		
Key Selector	Min. 50	Min. 30
Selector		
Pilot Lamp	Min. 30	Min. 30
Mushroom Push	Min. 50	Min. 40
Emergency switch	Min. 50	Min. 50

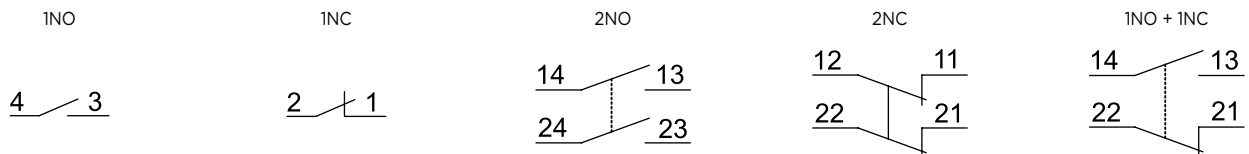
### Caution when fixing ring panel is attached



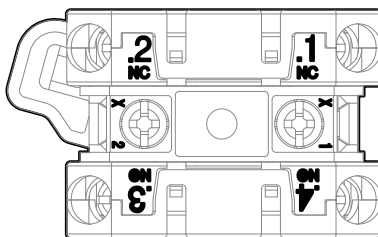
#### Ø22, Ø25 compatible fixing Ring

Please check numbers on side of the ring for suitable mounting to panel hole.

### Terminal Arrangement



### Illuminated type terminal arrangement



NC 1

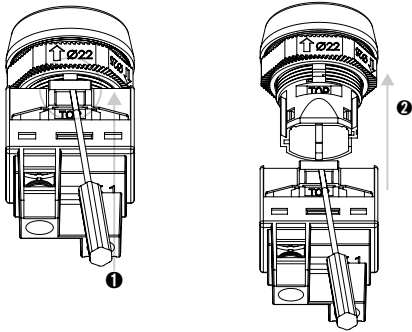
X1, X2 : LED Power

NO 3

## Pre-Caution

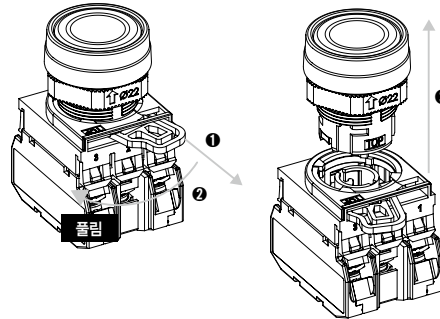
### Separation of control unit and main unit

#### Pilot Light



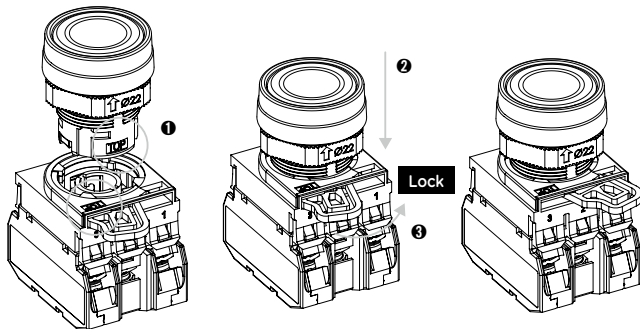
- ❶ Push the hook on a body to upper direction as figure 1
- ❷ Then LED lens shall be disassembled from the body.

#### Push button, Selector, Key, Emergency Switches



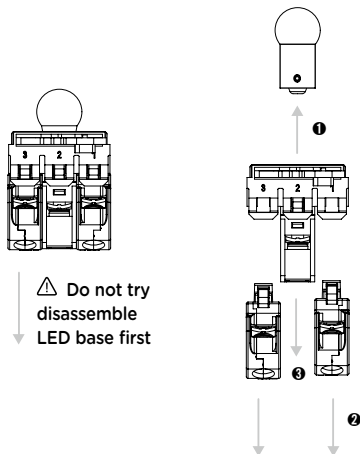
- ❶ Pull and turn the lever as a figure 1.
- ❷ Rotate it in direction 2 to unlock it.
- ❸ Pull out the operator from the body.

### How to assemble



- ❶ Match same direct with 'TOP' indication between operator & body as figure 1
- ❷ Assemble operator to body as figure 2.
- ❸ Lock the operator by turning the lever too right as figure 3.

### How to change LED



1. Please disassemble as following instruction as figures  
Remove ❶ LED -> ❷ Contact block -> ❸ LED base
2. If you do not following the instruction it shall be a cause of broken switches.

# Control Switch

## J2 Series

### Pre-Caution

Key, Selector Switches contact block configuration

#### 2 Step

Contact block	Parts number Example	Position	Contact	Lever	
				Left	Right
1NO + 1NO	J2-10 + J2-10	R	NO		●
		L	NO		●
1NO + 1NC	J2-10 + J2-01	R	NO		●
		L	NC	●	
1NC + 1NC	J2-01 + J2-01	R	NC	●	
		L	NC	●	
2NO + 2NC	J2-20 + J2-02	R	NO		●
			NO		●
		L	NC	●	
			NC	●	

#### 3 Step

Contact block	Parts number Example	Position	Contact	Lever		
				Left	Center	Right
1NO + 1NO	J2-10 + J2-10	R	NO			●
		L	NO	●		
1NO + 1NC	J2-10 + J2-01	R	NO			●
		L	NC		—————	
1NC + 1NC	J2-01 + J2-01	R	NC	—————		
		L	NC		—————	
2NO + 2NC	J2-20 + J2-02	R	NO			●
			NO			●
		L	NC		—————	
			NC		—————	



#### Parts number

