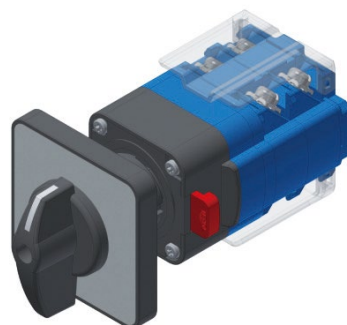





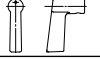


KSG Series



Selection guide







KSG - 22 □ □ R 3 2 10 H

Classification		Content
Model	KSG	Separate type(Terminal angle)
	22	Panel cut-out Ø22
	25	Panel cut-out Ø25
Mounting type	30	Panel cut-out Ø30
	None	Knob
	K	Key
Actuator	None	48x48 Square front plate type
	N	Non-plate, Circular guard(Knob type:Ø25, Key type : Ø22, Ø25)
	M	Non-plate, Circular ring(Key type only)
Front plate	M	Non-plate, Circular ring(Key type only)
	None	Manual return(45°, 90°)
	R	Spring return from both sides(45°)
	C	Spring return from single side(45°)
	CL	(45°)
	3M	Manual return(30°)
	6M	Manual return(60°)
	9M	Manual return(90°)
No. of positions, steps	2~12	Maximum 12
Stages(Poles)	1~15	Maximum 15
Circuit Diagram No.	01~99	Even if steps and blocks are same, but they are different contact structure. So display serial numbers to set numbers from 0 to 99.
Knob Type	E	E-Type 
	R	R-Type 
	T	T-Type 
	S	S-Type 
	H	H-Type 
	P	P-Type 

KG Series

Selection guide

KG - ☐ ☐ ☐ **3 2 10 H**

Classification		Content
Model	KG	Panel mounting Type
Mounting type	4	Panel mounting 48x48
	6	Panel mounting 60x60
	6S	Panel mounting 60x60
	A	Panel mounting
	24D	60x80 24VDC
Lamp type	None	2color Lamp
	T	3color Lamp
Operation mode	None	Manual return (45°)
	R	Spring return from both sides (45°)
	C	Spring return from single side(45°)
	CL	(45°)
	3M	Manual return (30°)
	6M	Manual return (60°)
	9M	Manual return (90°)
No. of positions, steps	2~12	Maximum 12
Stages(Poles)	1~15	Maximum 15
Circuit Diagram No.	01~99	Even if steps and blocks are same, but they are different contact structure. So display serial numbers to set numbers from 0 to 99.
Knob Type	E	E-Type 
	R	R-Type 
	T	T-Type 
	S	S-Type 
	H	H-Type 
	P	P-Type 



CONTROL
COMPONENTS

MICRO
SWITCH

FOOT
SWITCH

LIMIT
SWITCH

POWER
SWITCH

HOIST
SWITCH

CAM
SWITCH

KG, KSG CAM Switches specifaion

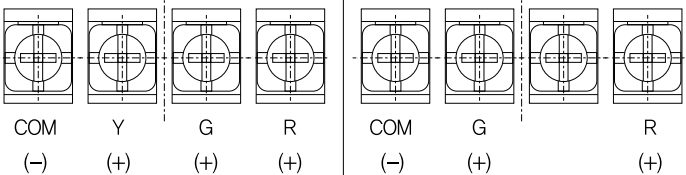
Rated insulation voltage(Ui)		600VAC, 250VDC
Rated through current		15A
Contact ratings		250VAC, 10A
Insulation resistance		100M Ω min.(DC500V)
Withstand voltage		1,500VAC(60Hz) for 1 minute
Contact resistance		50m Ω maximum
Vibration resistance		10~55Hz 3 axis 1.5m X, Y, Z each direction for 1 h
Shock resistance		Durability: Minimum 30G(300 $\frac{m}{s^2}$), Malfunction: Minimum 10G(100 $\frac{m}{s^2}$)
Ambient Temperature		-25 ~ +70°C
Operating ambient temperature		-20 ~ +60°C(not frozen condition)
Operating ambient humidity		45~85%RH
Operation frequency		20operations/minute maximum
Durability	Electrical	200K operations at 250VAC 10A
	Mechanical	500K operations
Protection degree		IP65(CL Type IP40)
Material	Contact block	ABS Resin(UL94-V0)
	Actuator	PA66 Resin
	Contact	Ag Alloy
	Terminal	Brass + Nickel plated
	CAM	POM Resin
Minimum operating load		5VAC 500mA or 5VDC 100mA

Environmental Type: Environmental Type Rating 1 when mounted on a flat surface of an enclosure rated Type 1
Ambient Temperature Rating: 40 °C.

KG, KSG Rated voltage and current

AC					DC				
Volatage	AC-12		AC-15		Voltage	DC-12		DC-13	
	(cos ϕ = 0.9) Resistive load		(cos ϕ = 0.3) Inductive load			L/R(T0.95)=1ms Resistive load		L/R(T0.95)=300ms Inductive load	
	Current	Capacity	Current	Capacity		Current	Capacity	Current	Capacity
125V	15A	1875VA	7.5A	1250VA	24V	10A	240W	6A	120W
250V	10A	2500VA	5A	1875VA	110V	2A	220W	1A	165W
440V	2.5A	1100VA	2A	880VA	250V	0.8A	250W	0.55A	138W

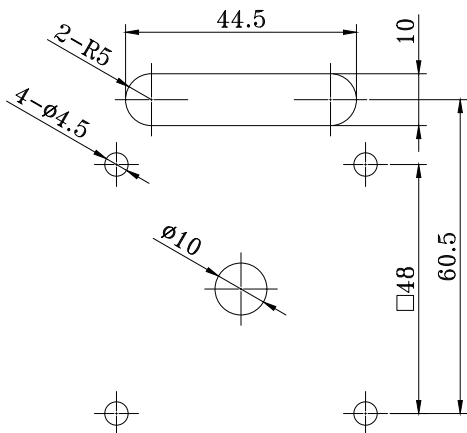
KG/KC-24D Lamp specifaion

Sortation	
Rated voltage	DC24V \pm 10%
Consumption power	Maximum 1W
Lamp Current	Maximum 20mA
Lamp Color (LED)	(Red, Green, Yellow)
Lamp Diagrama	 <p>3-color type lamp</p> <p>2-color type lamp</p> <ul style="list-style-type: none"> · The terminal polarity is depends on order (basics (-)Common) · (+)Common Order Specification · When you wire terminal, please pay attention LED color
Insulation resistance	100M Ω min.(DC500V)
Withstand voltage	2,000VAC(60Hz) for 1 minute
Operating ambient temperature	-20 ~ +60°C(not frozen condition)
Operating ambient humidity	45~85%

Class 2 input

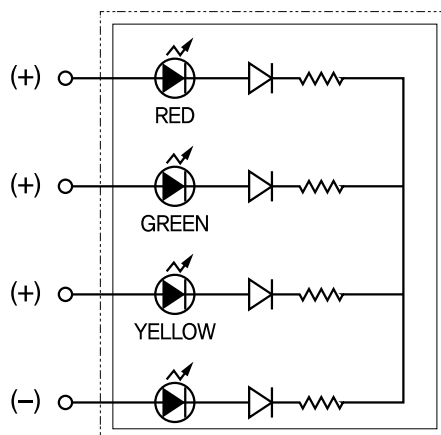
KG/KC-24D

Lamp Type Panel CUT-OUT



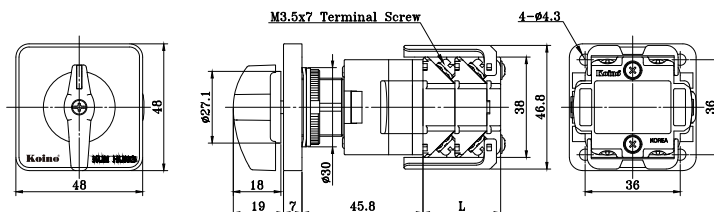
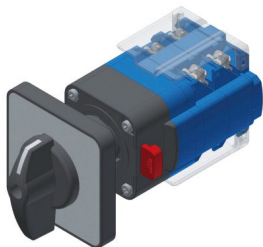
KG/KC-24D

Lamp Circuit Diagram



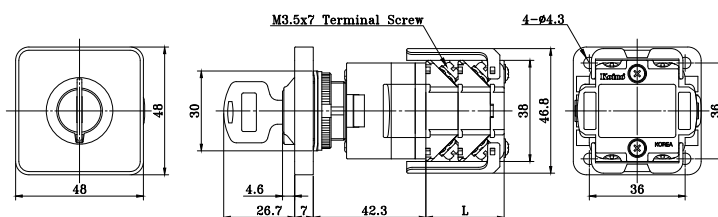
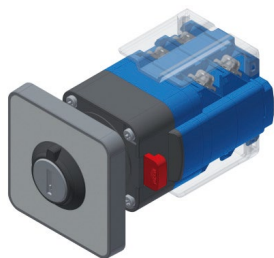
KSG Dimensions

KSG-22



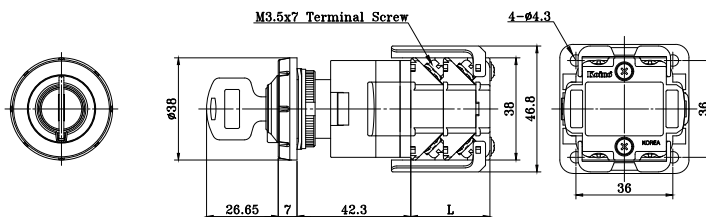
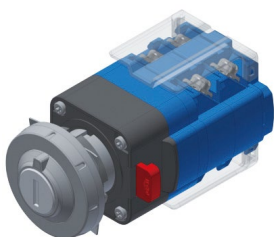
* n=number of stages

KSG-22K



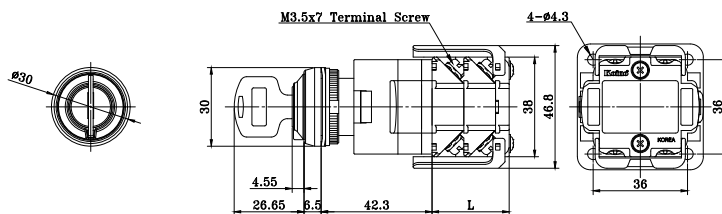
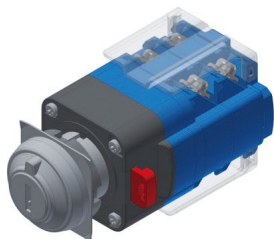
* n=number of stages

KSG-22KM



* n=number of stages

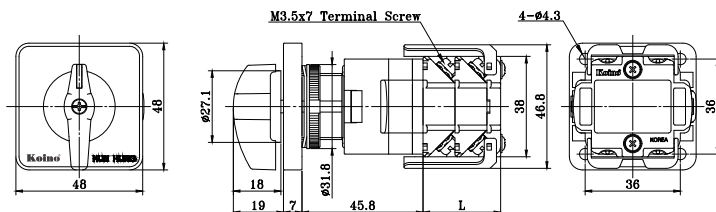
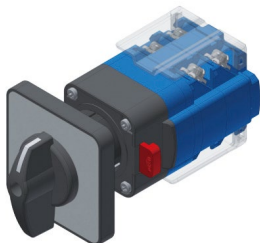
KSG-22KN



* n=number of stages

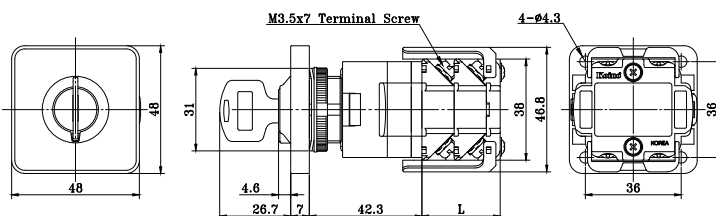
KSG Dimensions

KSG-25



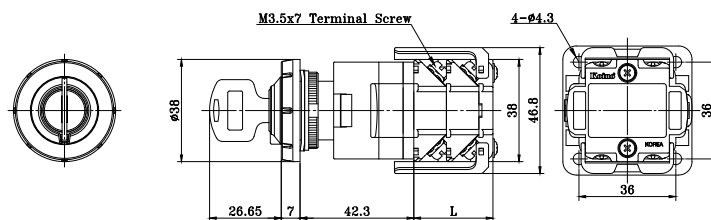
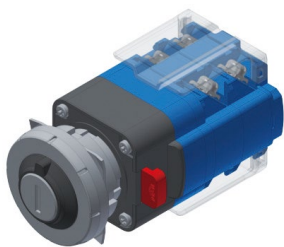
* n=number of stages

KSG-25K



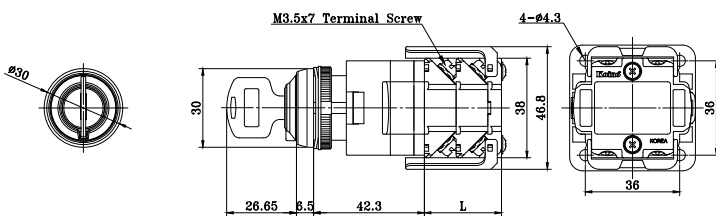
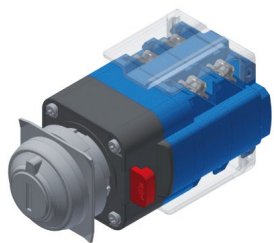
* n=number of stages

KSG-25KM



* n=number of stages

KSG-25KN



* n=number of stages

CONTROL
COMPONENTS

MICRO
SWITCH

FOOT
SWITCH

LIMIT
SWITCH

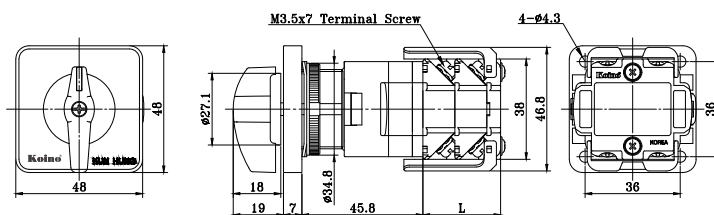
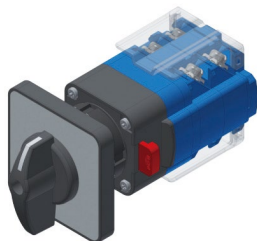
POWER
SWITCH

HOIST
SWITCH

CAM
SWITCH

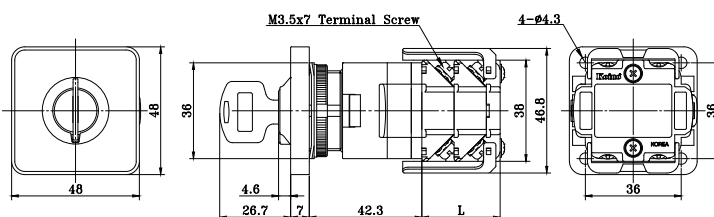
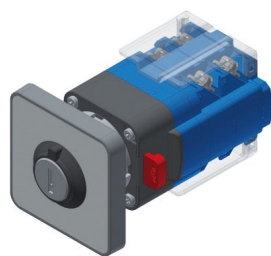
KSG Dimensions

KSG-30



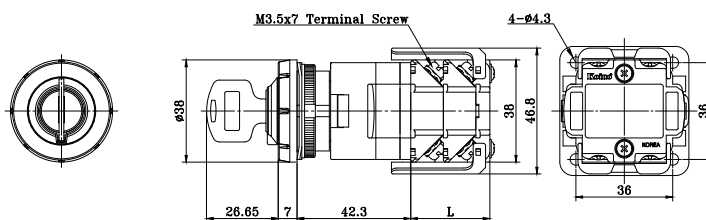
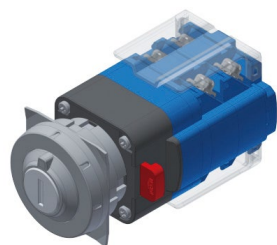
* n=number of stages

KSG-30K



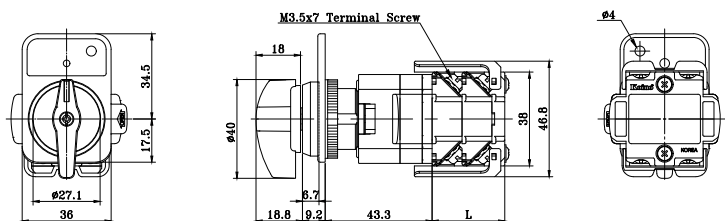
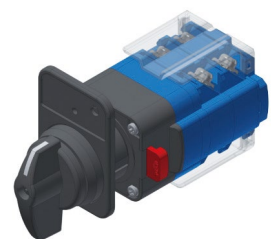
* n=number of stages

KSG-30KM



* n=number of stages

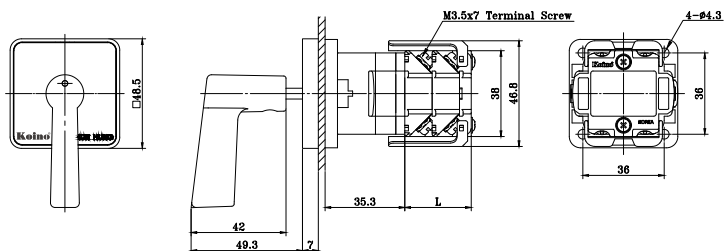
KSG-25N



* n=number of stages

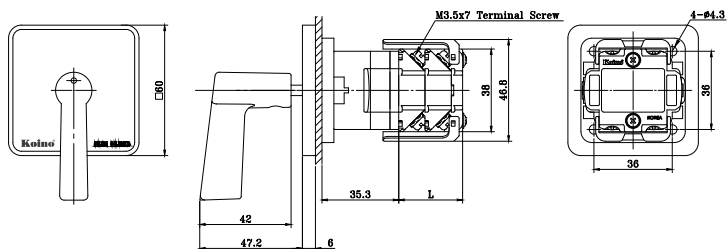
KG Dimensions

KG-4



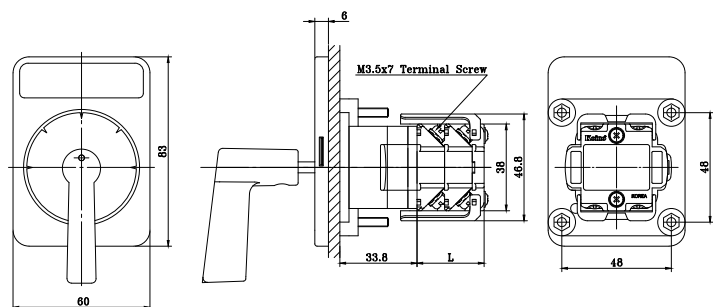
* n=number of stages

KG-6



* n=number of stages

KG-A



* n=number of stages

CONTROL
COMPONENTS

MICRO
SWITCH

FOOT
SWITCH

LIMIT
SWITCH

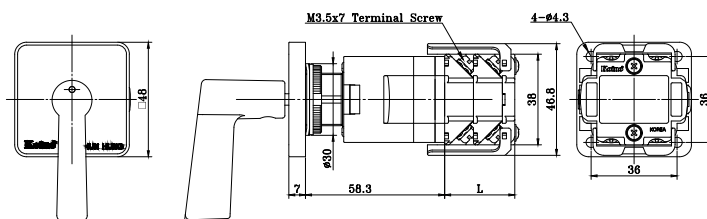
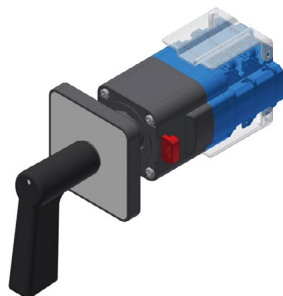
POWER
SWITCH

HOIST
SWITCH

CAM
SWITCH

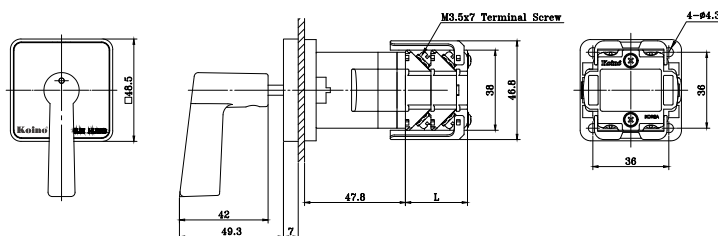
KG,KSG Dimensions

KSG22(25,30)-CL



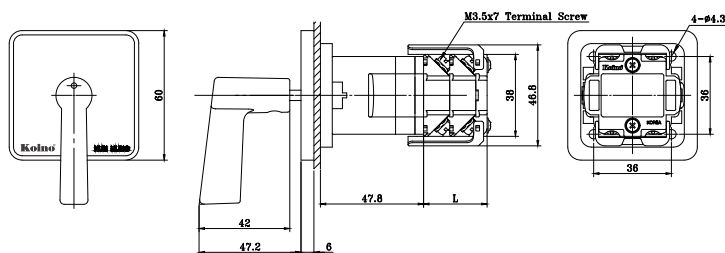
* n=number of stages

KG-4-CL



* n=number of stages

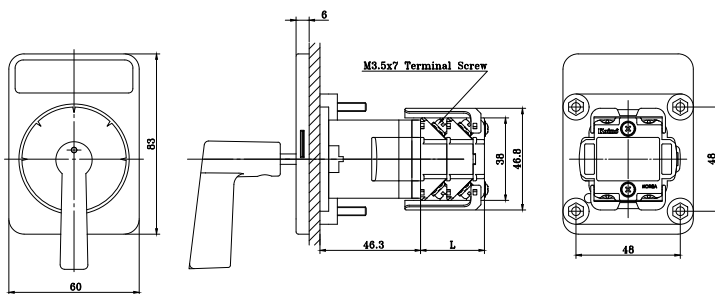
KG-6-CL



* n=number of stages

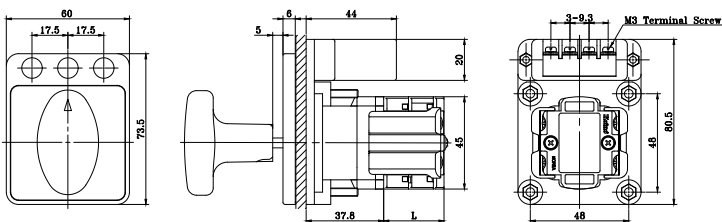
KG Dimensions

KG-A-CL



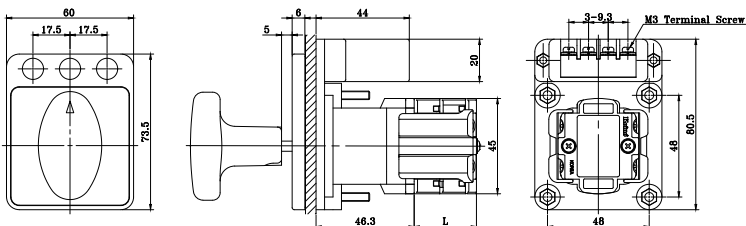
* n=number of stages

KG-24D



* n=number of stages

KG-24D-CL



* n=number of stages

CONTROL
COMPONENTS

MICRO
SWITCH

FOOT
SWITCH

LIMIT
SWITCH

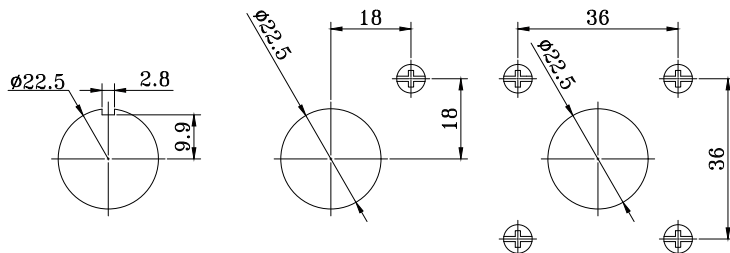
POWER
SWITCH

HOIST
SWITCH

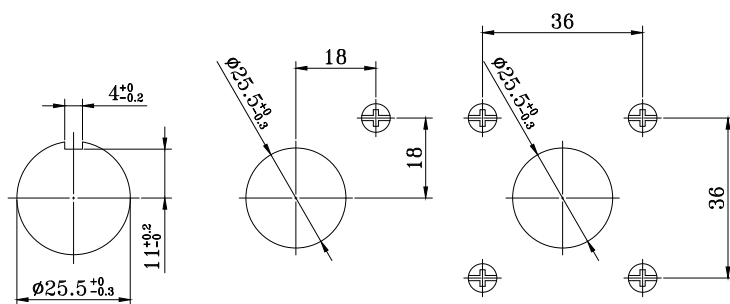
CAM
SWITCH

Panel cut-out

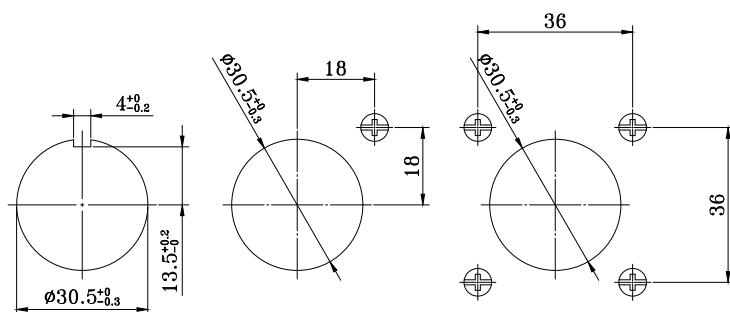
KSG22(25,30)-CL



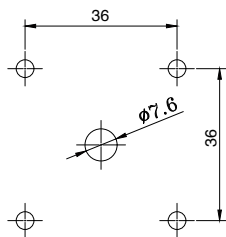
KSG-25



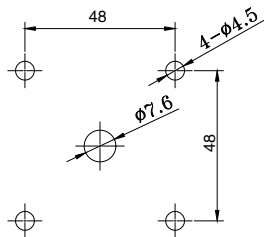
KSG-30



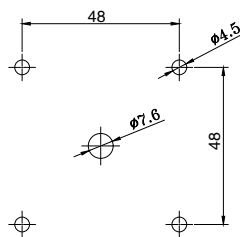
KG-4



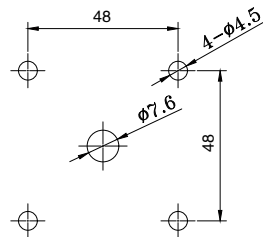
KG-6



KG-A



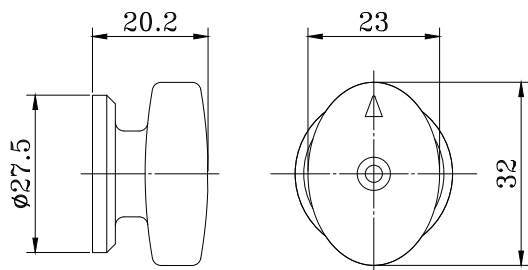
KG-6S



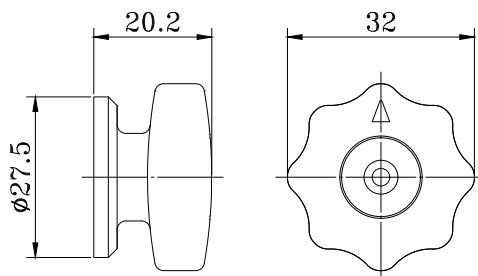
Handle Dimensions

KSG / KG

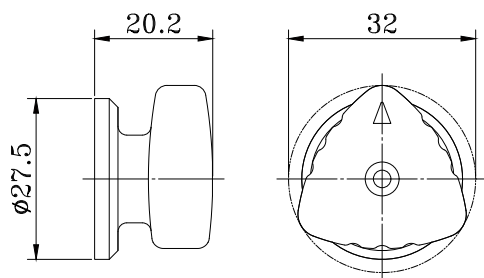
E Type



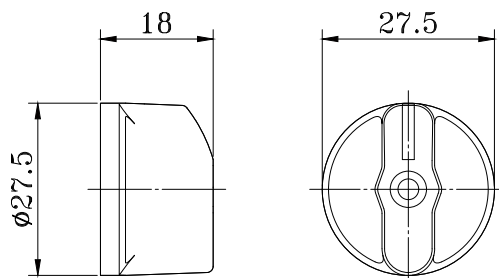
R Type



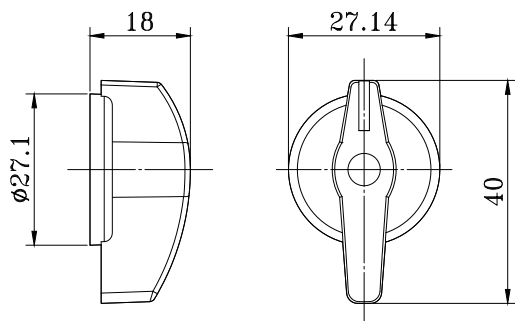
T Type



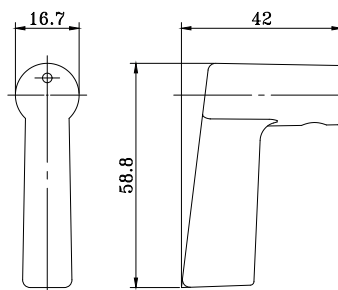
S Type



H Type



P Type



CONTROL
COMPONENTS

MICRO
SWITCH

FOOT
SWITCH

LIMIT
SWITCH

POWER
SWITCH

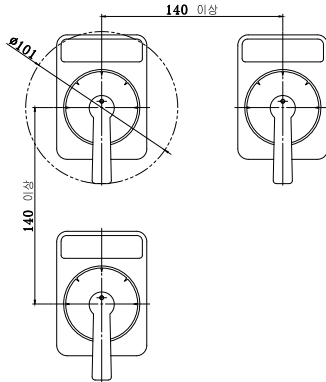
HOIST
SWITCH

CAM
SWITCH

KSG Panel

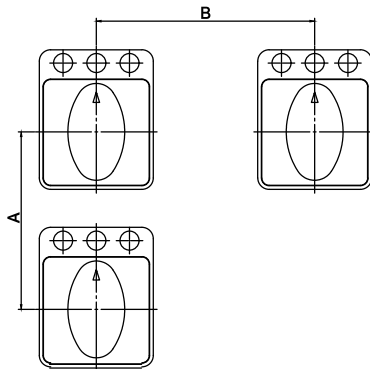
KSG / KG

1. PType (48X48, 60X60, 24D, 24DT, A)



※ This is the recommended dimension for rotating the P-type handle.
Depending on the singular number of handles, the installation environment, and the length of the switch, the spacing may vary.

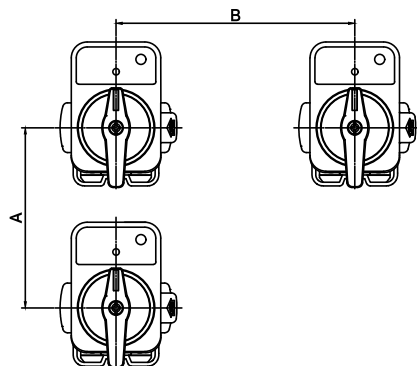
2. E Type, R Type, T Type, S Type, H Type, K Type



	(mm)	
Type	A	B
48X48	Minimum 68	Minimum 116
60X60	Minimum 80	Minimum 116
24D(24DT)	Minimum 93.5	Minimum 116
A	Minimum 103	Minimum 116

※ This is the recommended dimension based on 24D typing.
Depending on the singular number of handles, the installation environment, and the length of the switch, the spacing may vary.

3. 25N, KN, KM Type



	(mm)	
Type	A	B
25N Type	Minimum 72.5	Minimum 116
KN, KM Type	Minimum 66.8	Minimum 116




※ This is the recommended dimension based on 25N typing.
Depending on the singular number of handles, the installation environment, and the length of the switch, the spacing may vary.

KC Series



Selection guide

K C - ☐ ☐ - ☐ ☐ ☐ ☐ **3 2 10 H**

Classification		Content	
Company Name	K	KOINO	
Model	C	Cam switch	
Contact ratings	30A	30A 250VAC	
	20D	20A 125VDC	
Protection	None	IP40	
	W	IP65	
Front plate	6	Panel 60x60	
	6S	Panel 60x60	
	A	Panel 60x83	
	24D	60x80 24VDC	
Lamp type	None	2color Lamp	Applied to LED type only
	T	3color Lamp	
Operation mode	None	Manual return(45°)	
	R	Spring return from both sides(45°)	
	C	Spring return from single side(45°)	
	CL	Spring return, knob lock(45°)	
	3M	Manual return(30°)	
	6M	Manual return(60°)	
	9M	Manual return(90°)	
No. of positions, steps	2~12	Maximum 12	
Stages(Poles)	1~12	Maximum 12	
Circuit Diagram No.	01~99	Even if steps and blocks are same, but they are different conta structure, So display serial numbers to set numbers from 0 to 9	
Knob Type	E	E-Type	
	T	T-Type	
	P	P-Type	

CONTROL COMPONENTS

MICRO SWITCH

FOOT SWITCH

LIMIT SWITCH

POWER SWITCH

HOIST SWITCH

CAM SWITCH

K C - □ □ □ □ 3 2 10

Classification	Sign	Content
Company Name	K	KOINO
Division	C	Cam switch
Contact ratings	30A	30A 250VAC
	20D	20A 125VDC
Operation tool	KL	KEY LOCKER
Protection	None	IP40
	W	IP65
Operation mode	None	Manual return(45°)
	R	Spring return from both sides(45°)
	C	Spring return from single side(45°)
	9M	Manual return(90°)
No. of positions, steps	2~12	Maximum 12
Stages (Poles)	1~12	Maximum 12
Circuit Diagram No.	01~99	Even if steps and blocks are same, but they are different conta structure. So display serial numbers to set numbers from 0 to 9

KC-30A CAM Switches specificaion

Rated insulation voltage(Ui)		600VAC, 250VDC
Rated through current		35A
Contact ratings		240V, 30A
Insulation resistance		100M Ω min.(DC500V)
Withstand voltage		2,500VAC(60Hz) for 1 minute
Contact resistance		50m Ω maximum
Vibration resistance		10~55Hz 3 axis 1.5m X, Y, Z each direction for 1 h
Shock resistance		Durability: Minimum 50G(500%), Malfunction: Minimum 20G(200 %)
Ambient Temperature		-40 ~ +70°C
Operating ambient temperature		-20 ~ +60°C(not frozen condition)
Operating ambient humidity		45~85%RH
Operation frequency		20operations/minute maximum
Durability	Electrical	100K operations at 250VAC 30A
	Mechanical	500K operations
Protection degree		(Rain proof: IP65)
Material	Contact block	Polycarbonate Resin(UL94-V0)
	Actuator	PA66 Resin
	Contact	Ag Alloy
	Terminal	Brass + Nickel plated
	CAM	POM Resin
Minimum operating load		5VAC 500mA or 5VDC 100mA

Environmental Type: Environmental Type Rating 1 when mounted on a flat surface of an enclosure rated Type 1
Ambient Temperature Rating: 40 °C.

KC-30A Rated voltage and current

AC					DC				
Volatage	AC-12		AC-15		Voltage	DC-12		DC-13	
	(cos ϕ = 0.9) Resistive load		(cos ϕ = 0.3) Inductive load			L/R(T0,95)=1ms Resistive load		L/R(T0,95)=300ms Inductive load	
	Current	Capacity	Current	Capacity		Current	Capacity	Current	Capacity
110V	35A	3850VA	20A	2200VA	24V	30A	720W	15A	360W
220~240V	30A	7200VA	15A	3600VA	110V	6A	660W	2.5A	275W
380~440V	15A	6600VA	5.5A	2420VA	220V	2.5A	550W	1,2A	264W

KC-20D CAM Switches specification

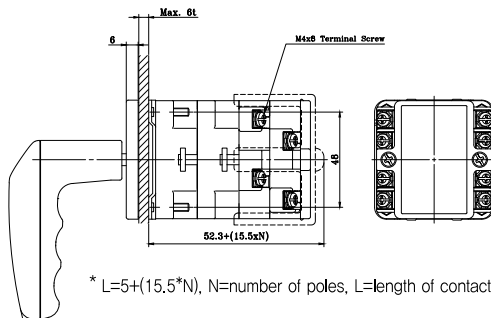
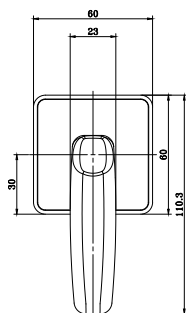
Rated insulation voltage(Ui)		250VDC
Rated through current		35A
Contact ratings		125VDC, 20A
Insulation resistance		100M Ω min.(DC500V)
Withstand voltage		2,500VAC(60Hz) for 1 minute
Contact resistance		50m Ω maximum
Vibration resistance		10~55Hz 3 axis 1.5m X, Y, Z each direction for 1 h
Shock resistance		Durability: Minimum 50G(500 $\%$) , Malfunction: Minimum 20G(200 $\%$)
Ambient Temperature		-40 ~ +70°C
Operating ambient temperature		-20 ~ +60°C(not frozen condition)
Operating ambient humidity		45~85%RH
Operation frequency		20operations/minute maximum
Durability	Electrical	100K operations at 125VAC 20A
	Mechanical	500K operations
Protection degree		(Rain proof: IP65)
Material	Contact block	Polycarbonate Resin(UL94-V0)
	Actuator	PA66 Resin
	Contact	Ag Alloy
	Terminal	Brass + Nickel plated
	CAM	POM Resin
Minimum operating load		5VAC 500mA or 5VDC 100mA

KC-20D Rated voltage and current

DC				
Volatage	DC-12		DC-13	
	L/R(T0.95)=1ms Resistive load		L/R(T0.95)=300ms Inductive load	
	Current	Capacity	Current	Capacity
110VDC	22A	2420W	4A	440W
125VDC	20A	2500W	3.5A	437.5W
220VDC	10A	2200W	2A	440W

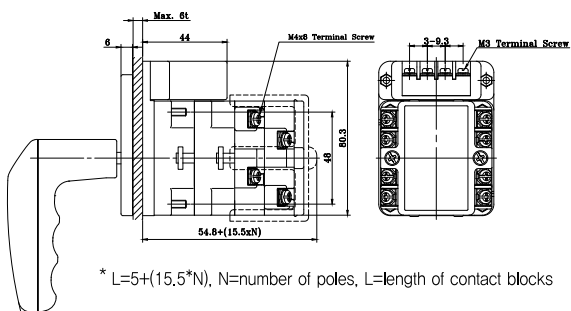
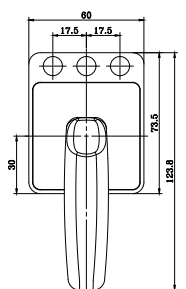
KC Dimensions

KC-30A-6SCL / KC-20D-6SCL



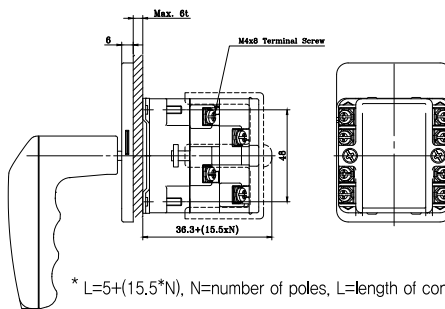
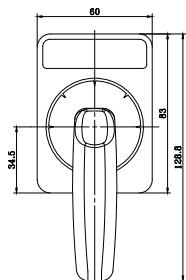
* $L=5+(15.5 \times N)$, N=number of poles, L=length of contact blocks

KC-30A-24DCL / KC-20D-24DCL



* $L=5+(15.5 \times N)$, N=number of poles, L=length of contact blocks

KC-30A-A / KC-20D-A



* $L=5+(15.5 \times N)$, N=number of poles, L=length of contact blocks

CONTROL
COMPONENTS

MICRO
SWITCH

FOOT
SWITCH

LIMIT
SWITCH

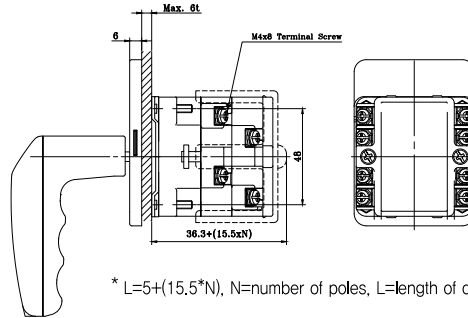
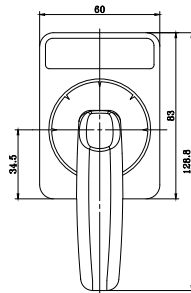
POWER
SWITCH

HOIST
SWITCH

CAM
SWITCH

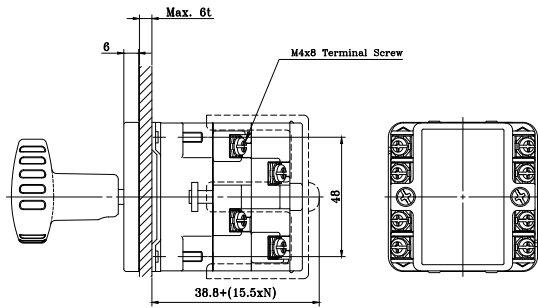
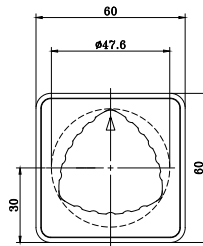
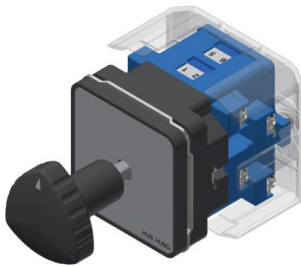
KC Dimensions

KC-30A-ACL / KC-20D-ACL



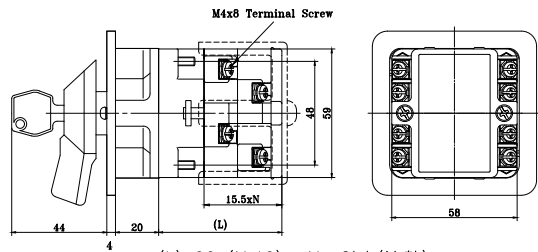
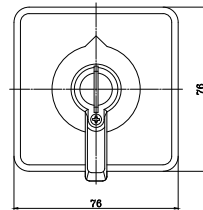
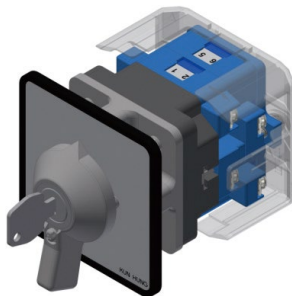
* $L=5+(15.5 \times N)$, N=number of poles, L=length of contact blocks

KC-30A-6 / KC-20D-6



* $L=5+(15.5 \times N)$, N=number of poles, L=length of contact blocks

KC-30AKL / KC-20DKL

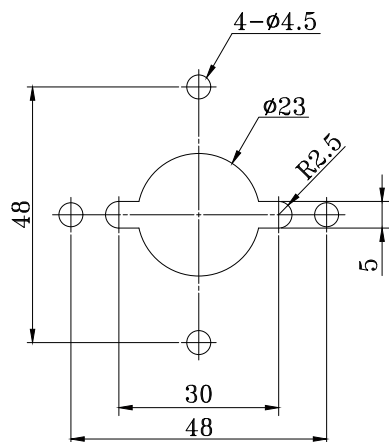


$(L)=26+(N-13)$, N : 연수 (連數)

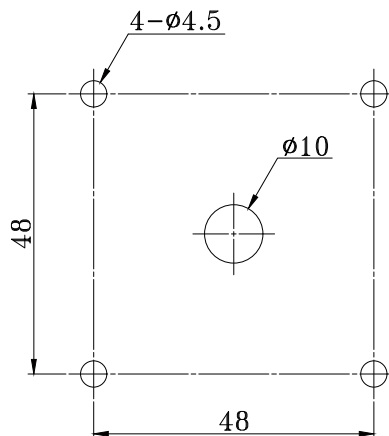
* $L=5+(15.5 \times N)$, N=number of poles, L=length of contact blocks

Panel cut-out

KC-30AKL / KC-20DKL

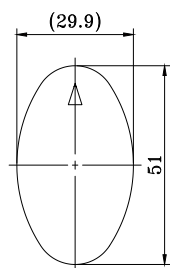


KC-30A / KC-20D

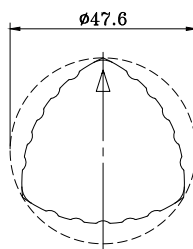
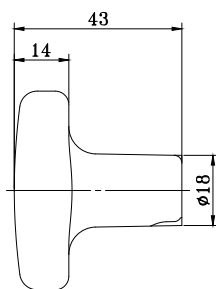


Handle Dimensions

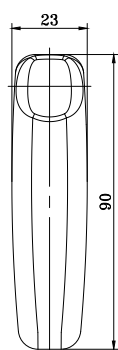
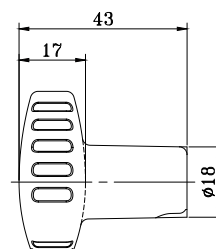
KC-30A / KC-20D



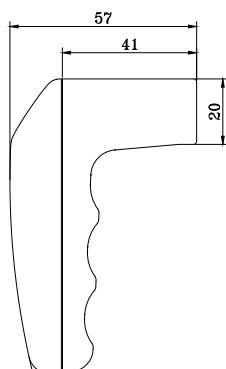
E Type



T Type



P Type



※ Some knobs are not available due to the structure.
 Please ask specific conditions.

CONTROL
COMPONENTS

MICRO
SWITCH

FOOT
SWITCH

LIMIT
SWITCH

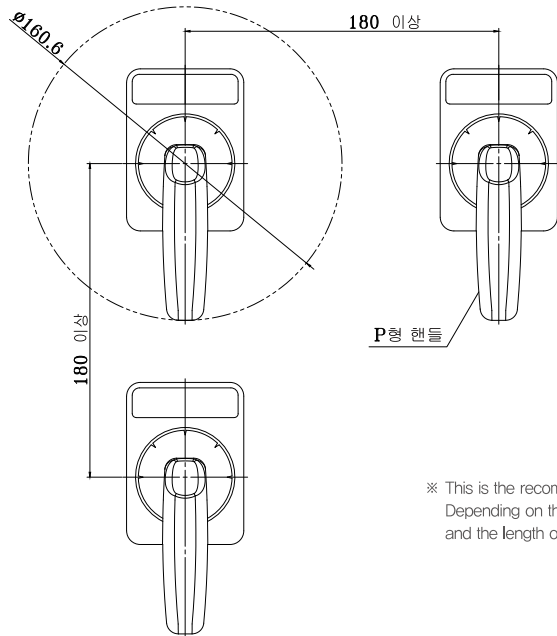
POWER
SWITCH

HOIST
SWITCH

CAM
SWITCH

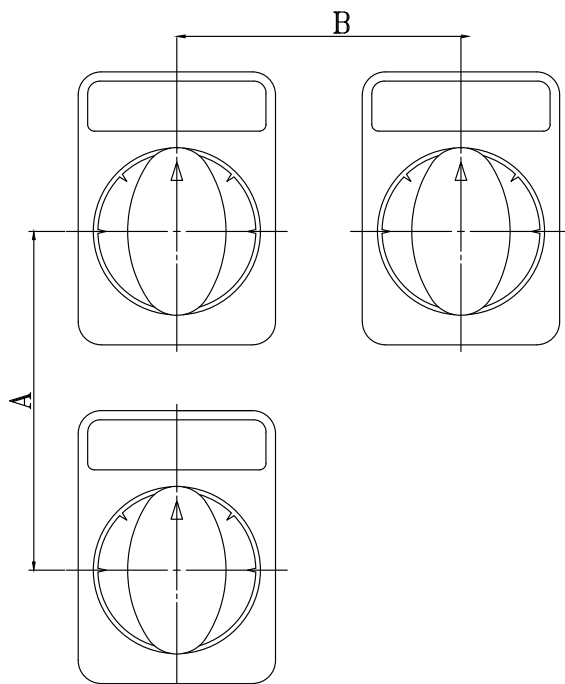
KC Panel

1. P Type (6,6S,A,24D,24DT)



※ This is the recommended dimension for rotating the P-type handle.
Depending on the singular number of handles, the installation environment,
and the length of the switch, the spacing may vary.

2. E Type, T Type



Type	(mm)	
	A	B
6(6S)	Minimum 80	Minimum 140
24D(24DT)	Minimum 93.5	Minimum 140
KL	Minimum 96	Minimum 140
A	Minimum 103	Minimum 140

※ This is the recommended dimension for rotating the A-type handle.
Depending on the singular number of handles, the installation environment,
and the length of the switch, the spacing may vary.