

CLASSIFICATION

NS22- □ □ - □ □ □ □ □ □ □ □
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

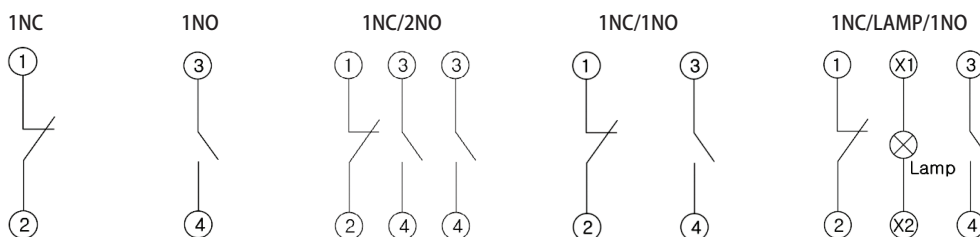
①	NS22	Ø22mm control switch		
② Type	L	Pilot lamp		
	P	Non- illuminated Push button		
	B	Illuminated push button		
	S	Short knob selector		
	SL	Long knob selector		
	K	Key selector		
	D	Double button		
③ Actuator	M	Momentary		
	A	Alternate (Push- Push)		
	EM	Mushroom head push button (Momentary)		
	2	2steps manual return		
	3	3steps manual return		
	A2	2steps auto(spring) return		
	A3	3steps auto(spring) return		
④ Lamp	None	Filament		
	L	LED		
	1AL	110V AC/DC 50/60Hz	LED type only	
2AL	220V AC/DC 50/60Hz			
⑤ Input voltage	1A	110V AC 50/60Hz	Transformer	
	12A	120VAC 50/60Hz		
	2A	220V AC 50/60Hz		
	3A	230V AC 50/60Hz		
	4A	380V AC 60Hz		
	5A	440V AC 60Hz		
	1C	6V AC/DC		DC volt.: LED only
	2C	12V AC/DC		
	3C	24V AC/DC		
	⑥	1D	48V DC	Transformer LED only
		2D	110V DC	
		12D	120V DC	
		3D	125V DC	
		4D	220V DC	
R		Red		
G	Green			
Y	Yellow			
B	Blue			
W	White (Lamp only)			
O	Orange (Amber)			
BK	Black (Not available with lamp type)			
⑦ 1st column	Number of blocks	NO=A, NC=B, None=0		
⑧ 2nd column				
⑨ 3rd column				

CONTROL COMPONENTS
 MICRO SWITCH
 FOOT SWITCH
 LIMIT SWITCH
 POWER SWITCH
 HOIST SWITCH
 CAM SWITCH

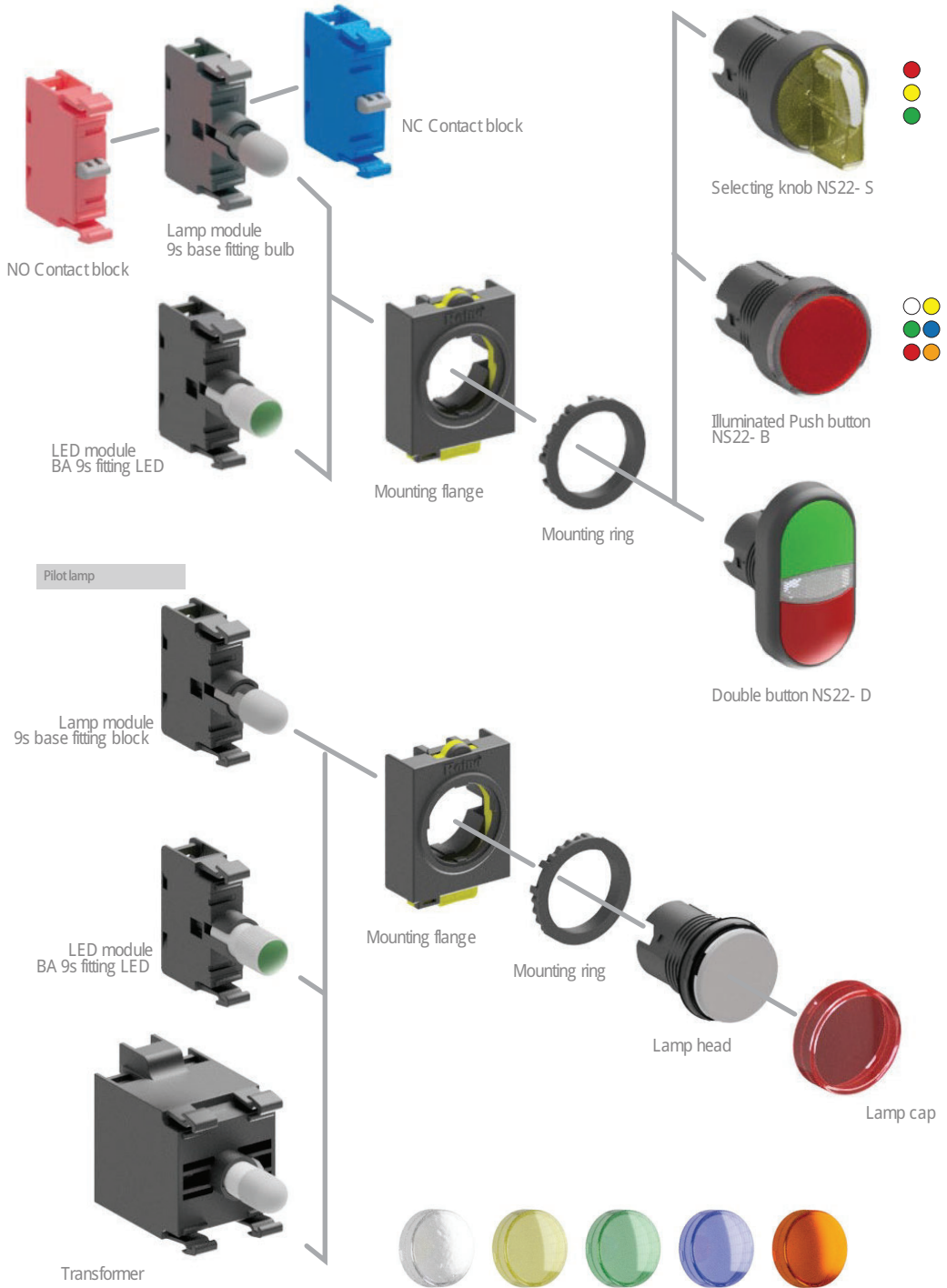
Specification

Type	Pilot lamp	Push button	Selector	Key selector	Double button	Mushroom push button
	NS22- L	NS22- PM NS22- PA NS22- BM NS22- BA	NS22- S2 NS22- S3 NS22- SA2 NS22- SA3 NS22- S3R NS22- SL2 NS22- SL3 NS22- SLA2 NS22- SLA3 NS22- SL3R	NS22- K2 NS22- K3 NS22- KA2 NS22- KA3 NS22- K3R	NS22- DM	NS22- PEM
Contact rating	AC 15:125V 6A, 250V 3A / DC 13 : 250V 0.27A					
Insulation resistance	100MΩ (DC 500V)					
Withstand voltage	2,500Vac(50Hz/60Hz for 1 minute)					
Contact resistance	30mΩ Max.					
Electrical durability	500,000 operations Minimum(30ops./ 1 minute Max.)					
Mechanical durability	Push button(Momentary):5 million operations Push button(Alternate):1 million operations Selector:1 million(Illuminating type: 0.5 million) operations Key selector:0.5 million operations Double button:1 million operations *1NO+1NC					
Vibration resistance	10 □55Hz 3 axis 1.5m X, Y, Z each direction for 1 h					
Shock resistance	Destruction at 50G minimum, Malfunction at 10G minimum					
Protection degrees	IP66(Double button:IP40, IP66- with boots seal)					
Operating ambient temperature	- 25°C □+70°C (not frozen condition) - 25°C □+55°C (lamp, not frozen condition)					
Ambient temperature	- 40°C □+70°C (not frozen condition)					
Operating ambient humidity	45 □85% RH					
Rated insulation voltage	600V					
Rated impulse withstand voltage	6KV					
Thermal current(Ith)	10A					

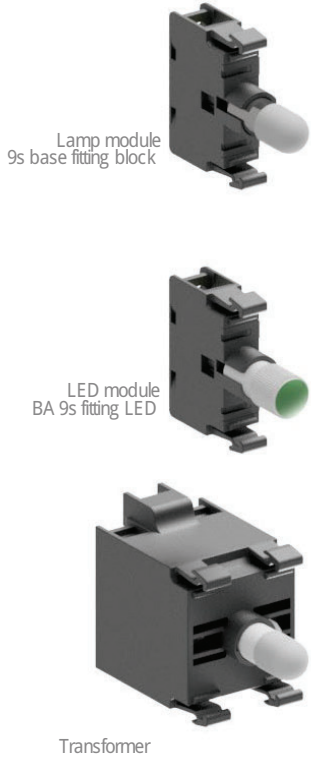
Terminal wiring diagram



Illuminated push button switch

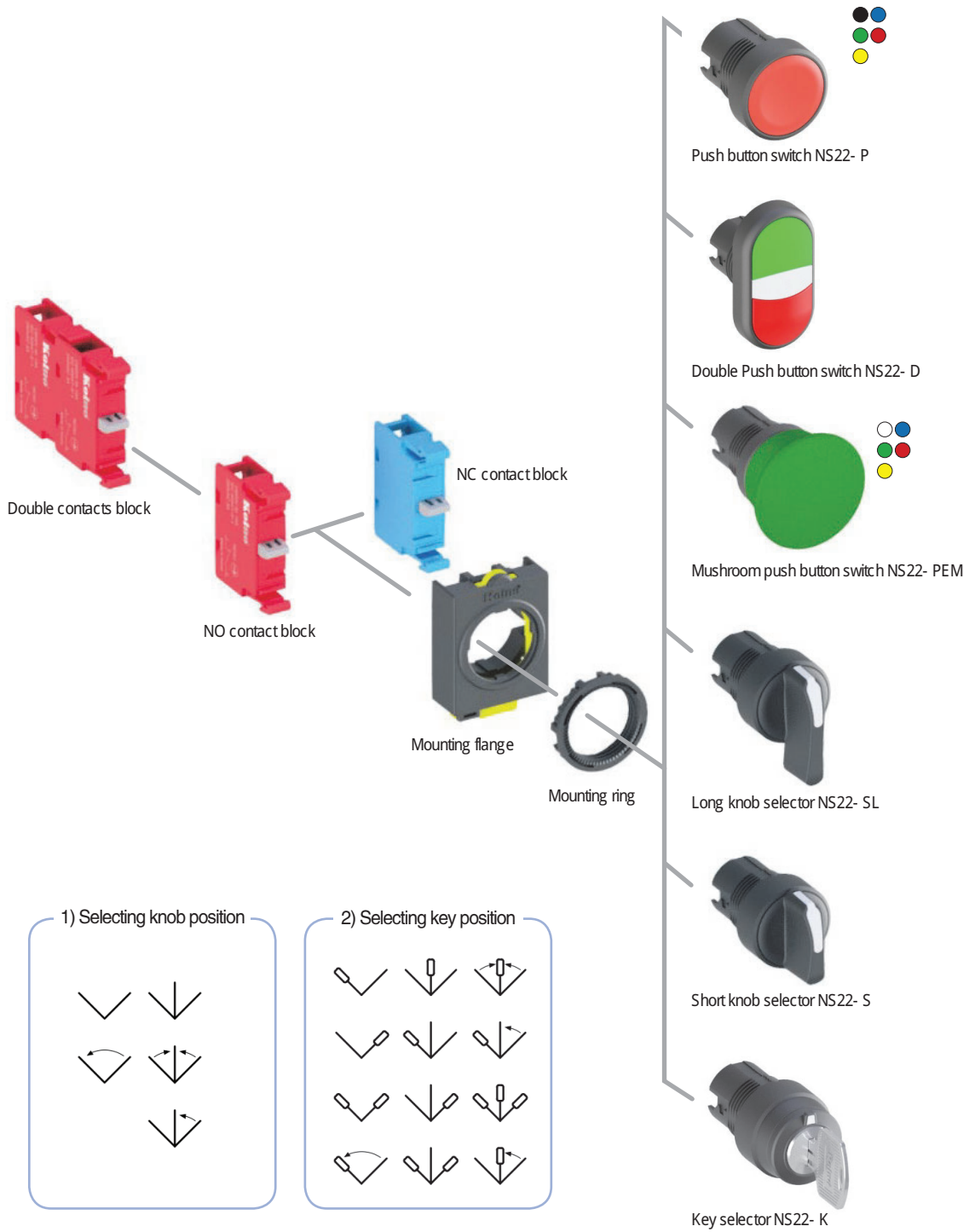


Pilot lamp



- CONTROL COMPONENTS
- MICRO SWITCH
- FOOT SWITCH
- LIMIT SWITCH
- POWER SWITCH
- HOIST SWITCH
- CAM SWITCH

Non-illuminated Switches



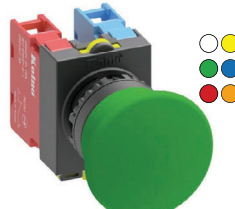
Non-LED Switches



Push button
(Momentary)
NS22-PM



Push button
(Alternate)
NS22-PA



Mushroom push button switch
NS22-PEM



Double push button
NS22-DM



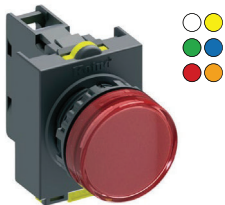
Short knob selector
NS22-S



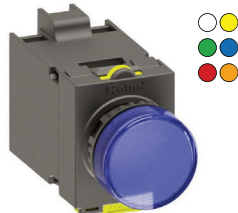
Long knob selector
NS22-SL



Key selector
NS22-K



Pilot lamp
NS22-L
BA 9s base Bulb



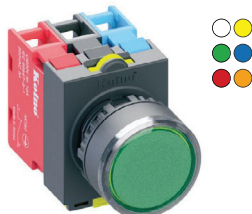
Pilot lamp
NS22-L
BA 9s base Bulb



Illuminated double button
NS22-DM
BA 9s base Bulb



Illuminated push button
(Momentary)
NS22-BM
BA 9s base Bulb



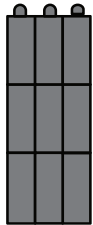
Illuminated push button
(Alternate)
NS22-BA
BA 9s base Bulb



Illuminated selector (Short knob)
NS22-S
BA 9s base Bulb

- CONTROL COMPONENTS
- MICRO SWITCH
- FOOT SWITCH
- LIMIT SWITCH
- POWER SWITCH
- HOIST SWITCH
- CAM SWITCH

Contact Blocks Assembly



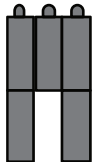
Push button (Momentary)
NS22-PM



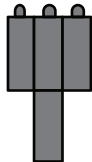
Push button (Alternate)
NS22-PA



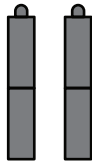
Double push button
NS22-DM



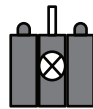
Short knob selector
NS22-S



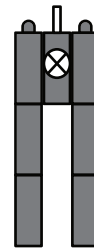
Long knob selector
NS22-SL



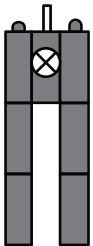
Key selector
NS22-K



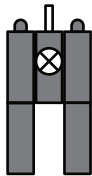
Illuminated short knob selector
NS22-S



Illuminated push button (Momentary)
NS22-BM



Illuminated double button
NS22-DM



Illuminated selector (Short knob)
NS22-S



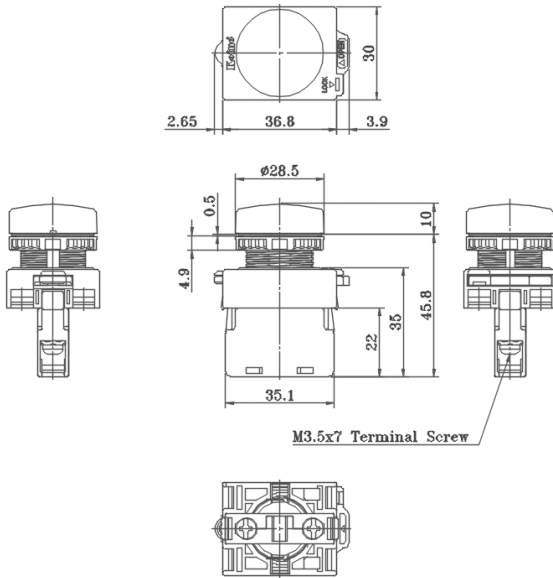
Mushroom push button switch
NS22-PEM

Legend

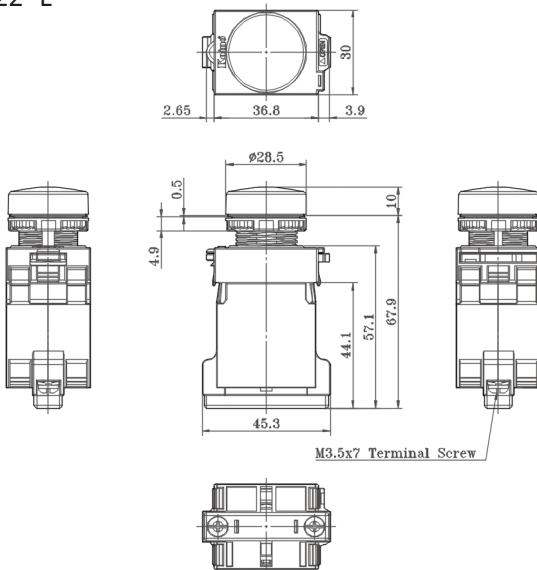
Contact block Lamp module (A, B)

Dimensions

Pilot lamp (Full voltage)
NS22- L



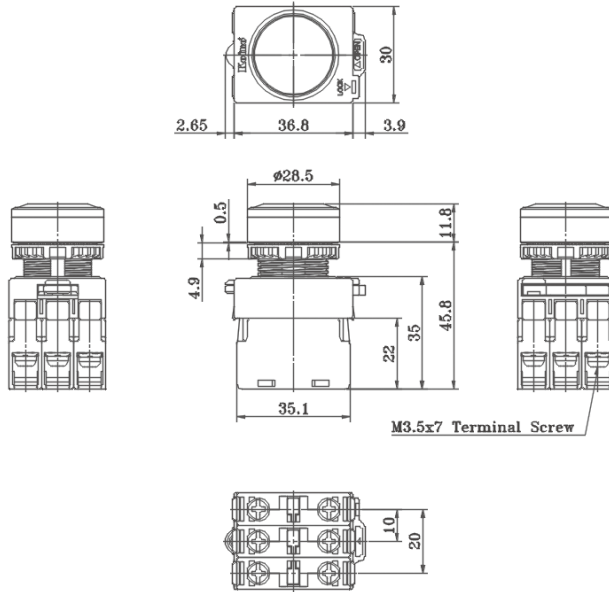
Pilot lamp (Transformer)
NS22- L



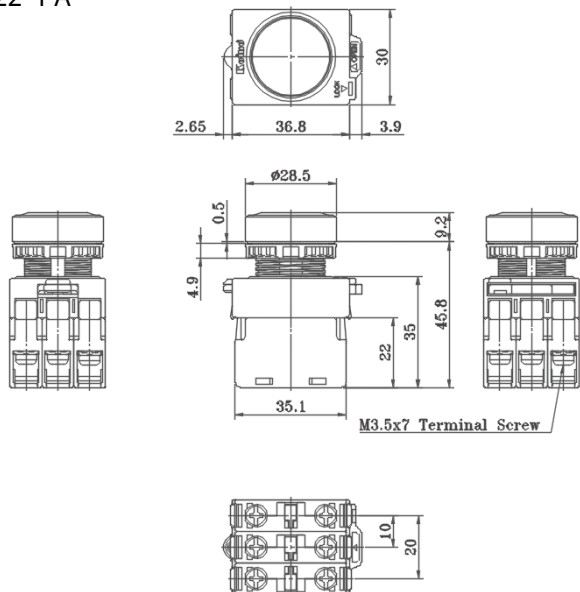
- CONTROL COMPONENTS
- MICRO SWITCH
- FOOT SWITCH
- LIMIT SWITCH
- POWER SWITCH
- HOIST SWITCH
- CAM SWITCH

Dimensions

Illuminated push button (Momentary, Alternate)
NS22- BM, NS22- BA

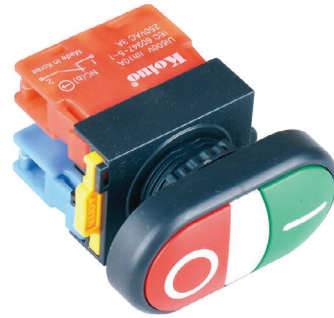
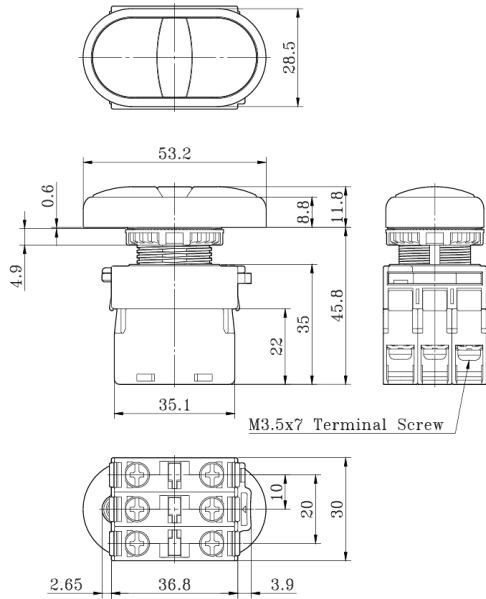


Push button (Momentary, Alternate)
NS22- PM, NS22- PA



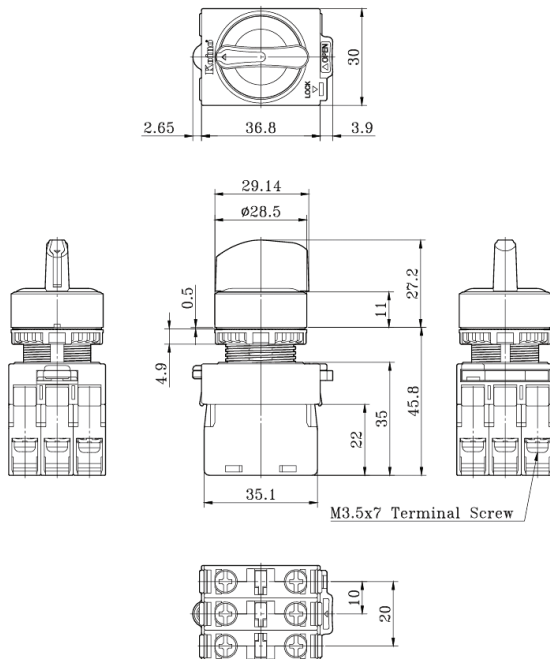
Dimensions

Double push button
NS22- DM



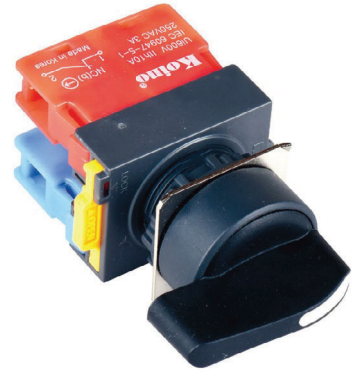
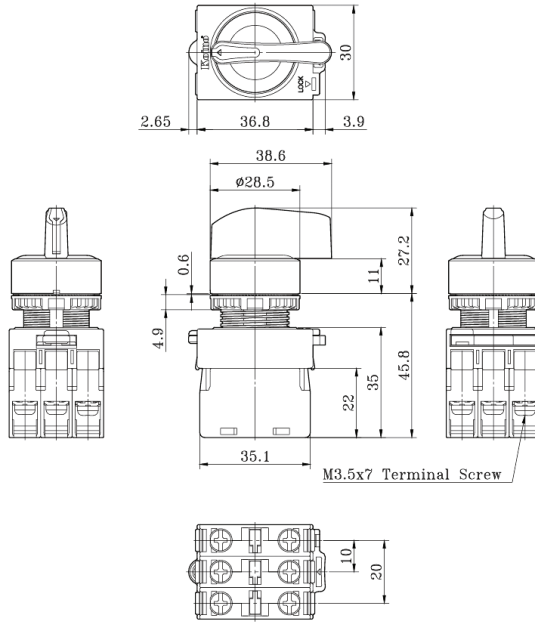
- CONTROL COMPONENTS
- MICRO SWITCH
- FOOT SWITCH
- LIMIT SWITCH
- POWER SWITCH
- HOIST SWITCH
- CAM SWITCH

Short knob illuminated selector
NS22- S

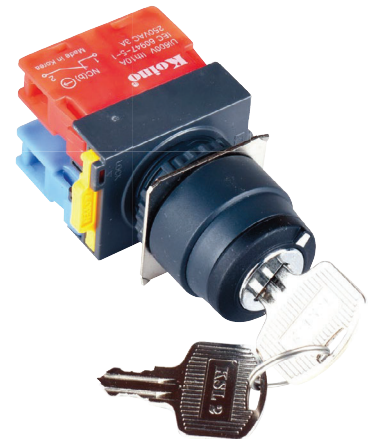
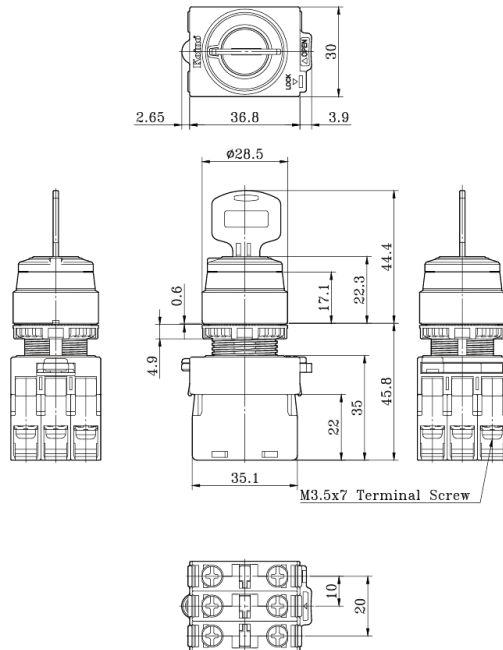


Dimensions

Long knob selector
NS22- SL

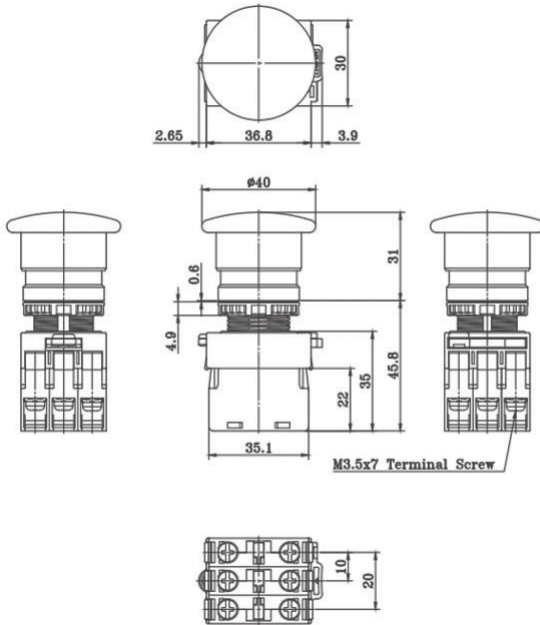


Key selector
NS22- K

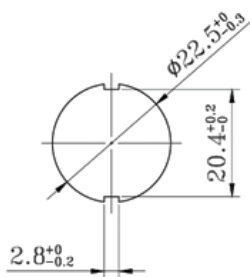


Dimensions

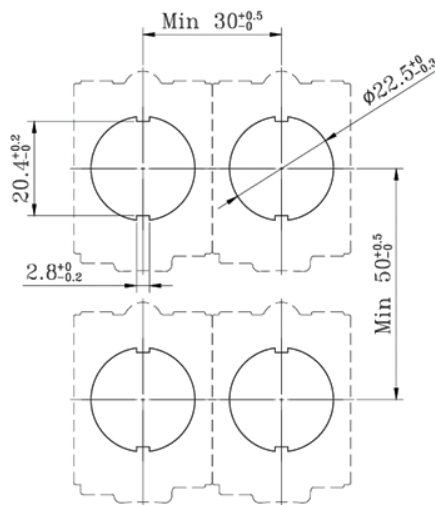
Mushroom push button
NS 22- PEM



Panel cut- out



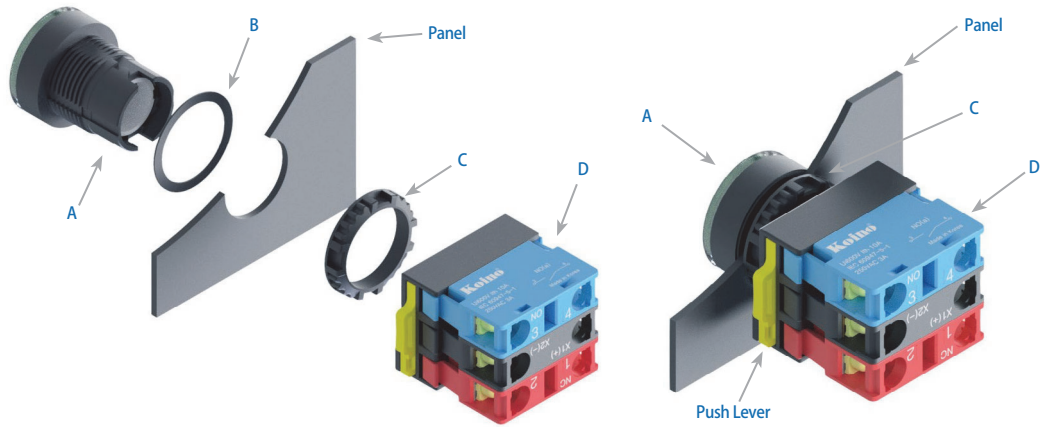
Panel mounting guide



- CONTROL COMPONENTS
- MICRO SWITCH
- FOOT SWITCH
- LIMIT SWITCH
- POWER SWITCH
- HOIST SWITCH
- CAM SWITCH

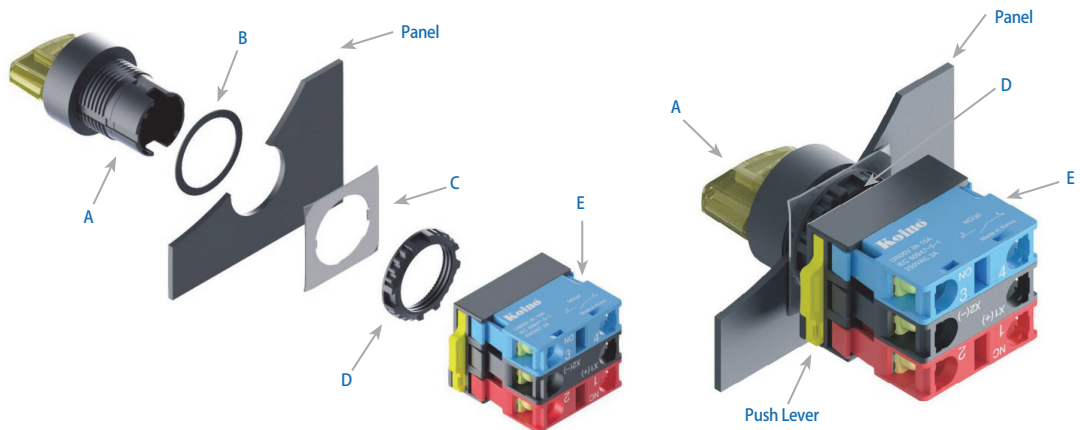
Assembly sample

Normal



- ① Push A+B into the panel
- ② Fasten with C
- ③ Place D into the groove of A
- ④ Push until it clicks
- ⑤ Separate D pushing " Push lever"

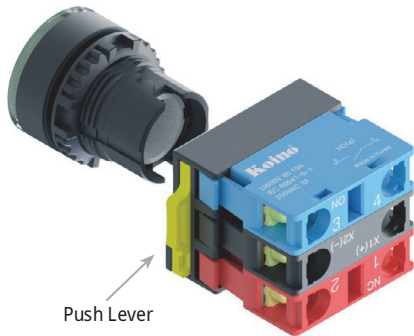
Selector



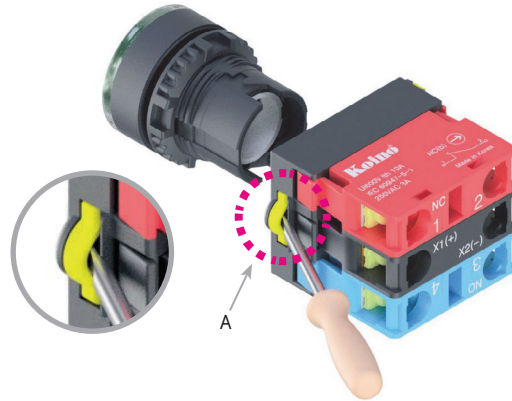
- ① Push A+B into the panel
- ② Fasten with C & D
- ③ Place E into the groove of A
- ④ Push until it clicks
- ⑤ Separate E pushing " Push lever"

Assembly sample

Actuator

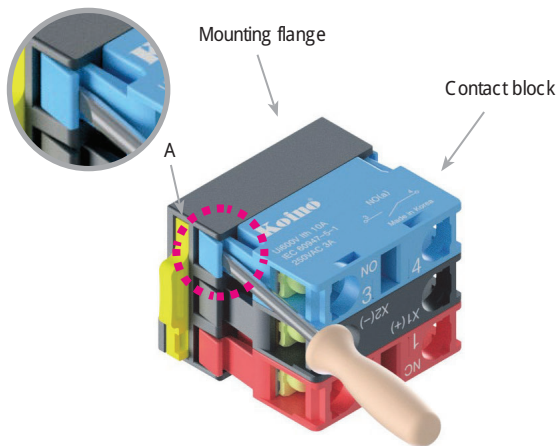


1. Using push lever



2. Pull " A"

Contact block




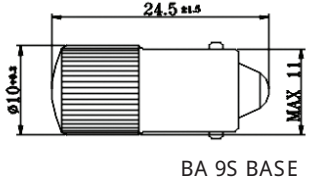
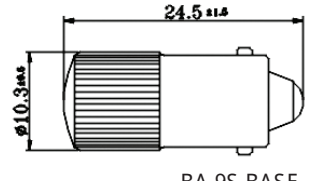
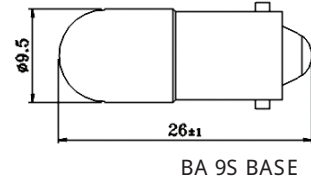
Using slotted screw driver (<1mm)



Push and turn the lamp to counterclockwise direction

- CONTROL COMPONENTS
- MICRO SWITCH
- FOOT SWITCH
- LIMIT SWITCH
- POWER SWITCH
- HOIST SWITCH
- CAM SWITCH

Bulb

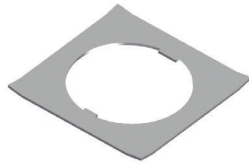
Shape	Type		Dimension
	6V DC	Red- AC voltage available	
		Green	
		Yellow	
		Blue	
		White	
	Orange		
	12V DC	Red	
		Green	
		Yellow	
		Blue	
		White	
	24V DC	Orange	
		Red	
		Green	
		Yellow	
		Blue	
	110V AC/DC	White	
		Orange	
		Red	
		Green	
Yellow			
220V AC/DC	Blue		
	White		
	Orange		
	Red		
	Green		
Filament bulb	6.3V 1W		
	12V 1W		
	24V 1W		

Accessories

Fastening tool



Anti-rotation ring



Fasten ring



Name plate



Support block



NS22-D boots Seal



LED
(BA9S Base)



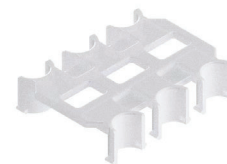
Filament bulb
(BA9S Base)



Contact cover



Contact block clip



CONTROL
COMPONENTS

MICRO
SWITCH

FOOT
SWITCH

LIMIT
SWITCH

POWER
SWITCH

HOIST
SWITCH

CAM
SWITCH