LAS0 series K type pushbutton switch

Product Overview

LAS0 series K type product that has five own intellectual property rights is a new kind of pushbutton , which is produced in recent years. Operating part and middle connection adopt convenient and quick installation way. It can be used under every terrible condition because of the shock, fall and vibration resistance.

The series has various head shape and we are still continually exploring and innovating to bring surprise to user!

The pushbutton lower the height above panel and lower the head height to 10mm; head of Φ 30mm diameter changing pushbutton even been reduced to less than 3mm.

K type pushbutton switches design philosophy for professional engineering bases on introducing, assimilating and innovating. The product blends new design ideas for the artistic technology mode of modern industrial product and adopts humanized overall structure design, which makes product has more beautiful shape, stronger structure and can be installed much quickly.

Protective Degree

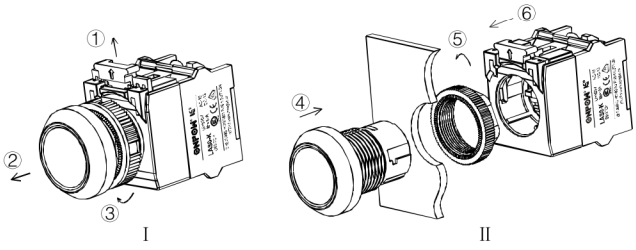
Common collocation is IP40. It is designed with internal high-level protection according to clients different demands to achieve IP65.

Outer Structure

The geometrical shape of operating part optimizes the organic combination of line and plane, plane and pyramid, which is not only nice and practical, but also can remove the operator 's weary sight and lead the trend of modern science.

Convenient Installation

The product is made up of operating part, connection and contact, It used advanced alternate fixture less connection, which is safe and reliable. It shows humanized design thinking and can be dismounted and installed efficiently. The multi functional fixed bolt cap can be installed in Φ 22mm or Φ 25mm panel without any accessory.



Cutline of Panel Installation



Implication of Type

LAS0 - ☆ - □ ■ ★ / ◇◆ / △ / ▲ / ◎

- ◎ Protective degree
- ▲ Lamp voltage
- △ Color
- ◇◆ Derivative code of selector and key-lock switch
- ★ Dimension of changing diameter
- ■ Operation type
- □ Contact structure
- ☆ Code of variety
- LAS0 Code of serious

☆ Code of variety:
K normal type
KE economy type

□ Contact Structure:
can choose the compound mode according to your requirement, such as:
11 1NO1NC 22 2NO2NC
33 3NO3NC 44 4NO4NC
If you need 'slow motion structure', please add M in front of the model number.

★ Diameter changing dimension: 30:Φ30mm

■ Operation type:
no letter means momentary, like D, EA or EB in part number, if in front there is contact number, means it is momentary illuminated pushbutton.

Z	alternate normal type
D	pilot lamp
EA	transparent ring pilot lamp
EB	colored ring pilot lamp
ZD	alternate illuminated
ZEA	alternate transparent ring illuminated
ZEB	alternate colored ring illuminated
P	momentary metal flat type
Q	momentary metal domed type
ZP	alternated metal flat type
ZQ	alternate metal domed type
MA	A type momentary mushroom
MB	B type momentary mushroom
ZMA	A type alternate mushroom
ZMB	B type alternate mushroom
TSA	A type emergency stop
X	selector switch
XA	A type lever switch
XB	B type lever switch
XC	C type lever switch
Y	key-lock switch
S	double-position pushbutton
C21	double-position rocker switch
C23	C23 double-position momentary rocker switch
C41	four-position rocker switch
C43	four-position momentary rocker switch

◇ Operation position of selector and key-lock switch:
2 two position
3 three postion

◆ Operation type of selector and key-lock switch:
1 maintain
2 half return
3 self return

△ Color:

R red	G green
Y yellow	O orange
B blue	W white
N black	

▲ Lamp voltage

◎ Protective degree:
P IP65
no letter means IP40

LAS0 series K type pushbutton switch

Specification

Operating Temperature		-25℃ ~ +55℃(no freezing) keep the air flowing around the illuminated pushbutton
Operating Humidity		45 ~ 85%RH(no condensation)
Contact Resistance		≤50mΩ
Insulation Resistance		≥100MΩ
Dielectric Strength		3000 V, AC 50Hz
Vibration Resistance		50Hz,Amplitude 1.0mmp-p
Shock Resistance		≥10g
Life	Mechanical	Momentary type:≥1,000,000 times; Alternate type and selector type:≥500,000 times Key-lock type and emergency type:≥200,000times
	Electrical	≥50,000 times
Terminal		Thread connection, diameter of welded wire: 2×1.5mm maxConnecting link:6.3 × 0.8mm
Operating Force		800gf~2200gf,according to the quantity of switch units
Operating Travel		A,B,C type:about 5.5mm(pushbutton)
		K type:about 3.8mm(pushbutton)

Switch Ratings

Rated Insulation Voltage Ui			500V					
Thermal Current Ith			10A					
Rated Voltage			24V	48V	110V	220V	380V	500V
Operating current	AC 50/60HZ	AC-12 resistive load and Semiconductor load control	10A	—	10A	6A	—	—
		AC-15 electronic load control (>72VA)	10A	—	6A	3A	1.8A	1.4A
	DC	DC-12 resistive load and Semiconductor load control	8A	4A	2.2A	1.1A	—	—
		DC-13 electronic load control	4A	2A	1.1A	0.6A	—	—
Contact material			Silver alloy					

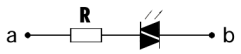
Minimum load：3V AC/DC,5mA (Application scope depends on operating environment and load type)

Lamp Ratings

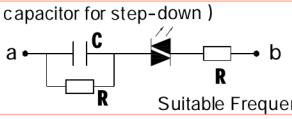
Lamp type	AC LED Lamp				
Rated voltage	AC/DC 6V	AC/DC 12V	AC/DC110V	AC/DC220V	AC/DC380V
	AC/DC 24V		AC 110V	AC 220V	AC 380V
rated current	≤20mA				
Life	40,000 hours				
Color	R G Y O B W				

Equivalent circuit

AC/DC: (resistance for step-down)



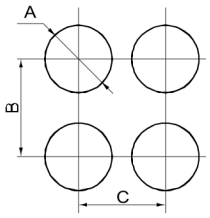
AC: (capacitor for step-down)



Suitable Frequency:：50 ~ 60Hz

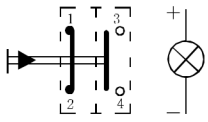
Note：1.The lamp contains current-limiting resistor inside and doesn't need connect outside.
2. The standard is using AC/DC LED lamp,DC LED lamp, dual-color LED lamp and other voltages can be customized.

Mounting hole Dimension



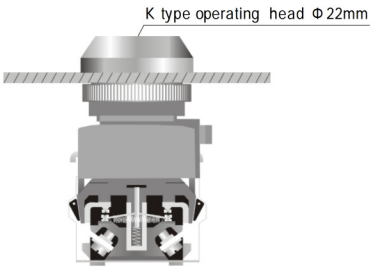
Model	A	B	C	Mark
Normal pushbutton	Φ22.5 or Φ25.5 or Φ30.5	≥50	≥35	1. Unit：mm 2. Band C both are the minimum size.
Selector, key switch		≥50	≥35	
Mushroom		≥50	≥42	
Big mushroom		≥70	≥70	

Circuit diagram

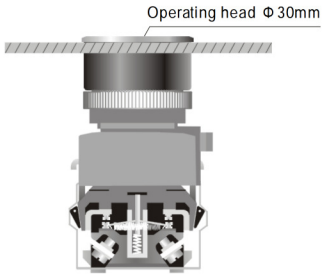


Switch code: 11.
1,2 are normal closed;
3,4 are normal opened;

Structure Charts

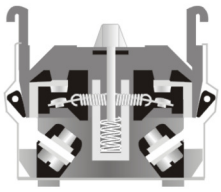


LAS0-K Type

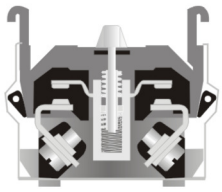


LAS0-K Type Φ30mm

Switch Base Diagram



Quick-break switch



Slow-break switch

The Contact Pair's Close-open State Chart of the Selector Switches and Key-lock Switches.

A. The Contact Pair's Close-open State Chart of 2-position Selector Switch.

Number	Model Type	↖	↗
1	LAS0-K-11■/2◆	○○ ●●	●● ○○
2	LAS0-K-02■/2◆	●● ●●	○○ ○○
3	LAS0-K-20■/2◆	○○ ○○	●● ●●
4	LAS0-K-22■/2◆	○○ ●● ●● ○○	●● ○○ ○○ ●●
5	LAS0-K-13■/2◆	●● ●● ●● ○○	○○ ○○ ○○ ●●
6	LAS0-K-31■/2◆	○○ ○○ ○○ ●●	●● ●● ●● ○○
7	LAS0-K-04■/2◆	●● ●● ●● ●●	○○ ○○ ○○ ○○
8	LAS0-K-40■/2◆	○○ ○○ ○○ ○○	●● ●● ●● ●●
9	LAS0-K-42■/2◆	●● ●● ●● ●● ○○ ○○ ○○ ○○	○○ ○○ ○○ ○○ ●● ●● ●● ●●
10	LAS0-K-24■/2◆	○○ ○○ ●● ●● ●● ●● ○○ ○○	●● ●● ○○ ○○ ○○ ○○ ●● ●●
11	LAS0-K-06■/2◆	●● ●● ●● ●● ●● ●● ○○ ○○	○○ ○○ ○○ ○○ ○○ ○○ ●● ●●
12	LAS0-K-60■/2◆	○○ ○○ ○○ ○○ ○○ ○○ ●● ●●	●● ●● ●● ●● ●● ●● ○○ ○○
13	LAS0-K-33■/2◆	○○ ○○ ●● ●● ○○ ○○ ●● ●●	●● ●● ○○ ○○ ●● ●● ○○ ○○
14	LAS0-K-15■/2◆	●● ●● ●● ●● ○○ ○○ ●● ●●	○○ ○○ ○○ ○○ ●● ●● ●● ●●
15	LAS0-K-51■/2◆	○○ ○○ ○○ ○○ ●● ●● ●● ●●	●● ●● ●● ●● ○○ ○○ ○○ ○○

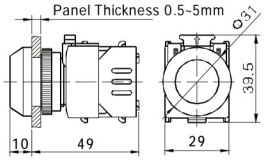
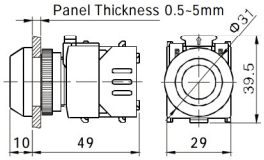
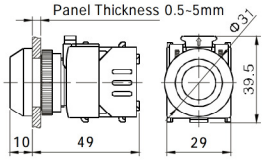
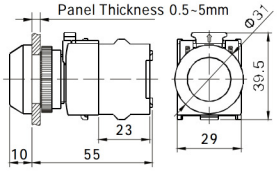
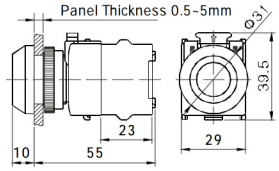
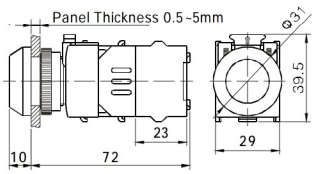
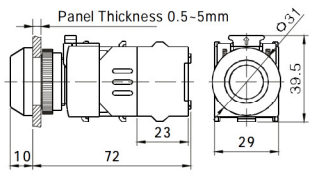
B. The Contact Pai r's Close-open State Chart of 3-position Selector Switch.

Number	Model Type	↖	↑	↗
1	LAS0-K-11■/3◆	●● ●●	○○ ●●	●● ○○
2	LAS0-K-02■/3◆	○○ ●●	●● ●●	●● ○○
3	LAS0-K-20■/3◆	●● ○○	○○ ○○	○○ ●●
4	LAS0-K-22■/3◆	○○ ●● ●● ○○	●● ●● ○○ ○○	●● ○○ ○○ ●●
5	LAS0-K-13■/3◆	●● ●● ○○ ●●	○○ ○○ ●● ●●	○○ ○○ ●● ●●
6	LAS0-K-31■/3◆	●● ○○ ●● ●●	○○ ●● ○○ ●●	○○ ●● ○○ ●●
7	LAS0-K-04■/3◆	○○ ●● ●● ●●	●● ●● ●● ●●	●● ○○ ●● ●●
8	LAS0-K-40■/3◆	●● ○○ ○○ ○○	○○ ○○ ○○ ○○	○○ ●● ●● ●●
9	LAS0-K-42■/3◆	○○ ●● ●● ●● ●● ○○ ○○ ○○	●● ●● ●● ●● ○○ ○○ ○○ ○○	●● ○○ ●● ●● ○○ ●● ●● ●●
10	LAS0-K-24■/3◆	●● ○○ ○○ ○○ ●● ●● ●● ●●	○○ ○○ ○○ ○○ ●● ●● ●● ●●	●● ○○ ●● ●● ○○ ●● ●● ●●
11	LAS0-K-06■/3◆	○○ ●● ●● ●● ●● ●● ●● ●●	●● ●● ●● ●● ●● ●● ●● ●●	●● ○○ ●● ●● ○○ ●● ●● ●●
12	LAS0-K-60■/3◆	●● ●● ●● ●● ●● ●● ○○ ○○	○○ ○○ ○○ ○○ ○○ ○○ ○○ ○○	○○ ●● ●● ●● ●● ●● ●● ●●
13	LAS0-K-33■/3◆	●● ●● ●● ●● ○○ ○○ ●● ●●	○○ ○○ ●● ●● ○○ ○○ ●● ●●	○○ ○○ ●● ●● ○○ ○○ ●● ●●
14	LAS0-K-15■/3◆	○○ ●● ●● ●● ●● ●● ●● ●●	●● ●● ●● ●● ●● ●● ●● ●●	●● ○○ ●● ●● ○○ ●● ●● ●●
15	LAS0-K-51■/3◆	●● ○○ ●● ●● ○○ ○○ ○○ ○○	○○ ○○ ○○ ○○ ●● ●● ●● ●●	○○ ●● ●● ●● ●● ●● ●● ●●

Note:1. ○○ express open state, ●● express close state.
2. Not all the contact state show in the table. If you need other contact state, please tell us

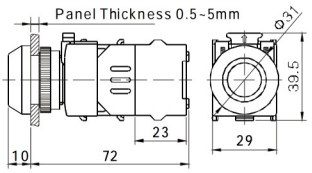
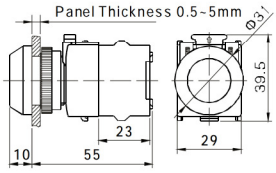
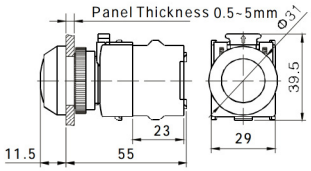
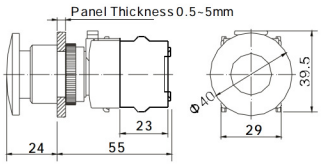
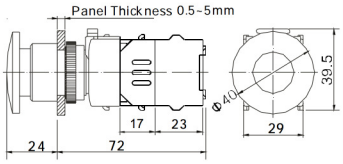
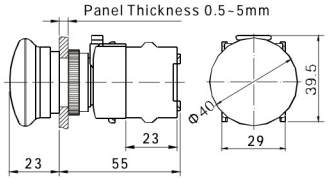
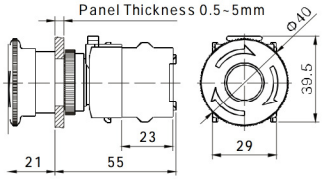
LAS0 series K type pushbutton switch

Product Cutline

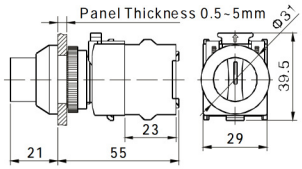
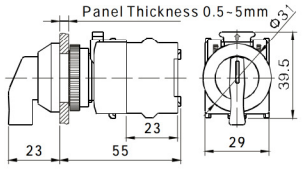
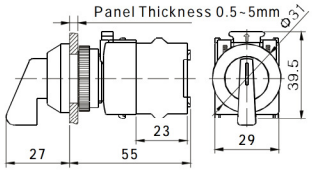
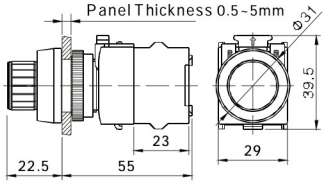
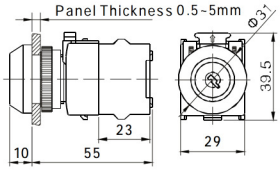
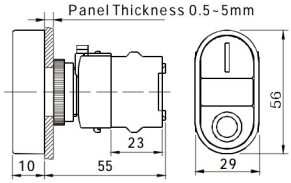
Shape	Operating Type	Type Number	Dimension	Remark
Pilot Lamp 	Pilot Lamp	LAS0-K-D/△/▲/◎		R G Y O B W ◎ Protective Degree: IP40, IP65
Ring Pilot Lamp 	transparent ring pilot lamp	LAS0-K-EA/△/▲/◎		R G Y O B W ◎ Protective Degree: IP40, IP65
Ring Pilot Lamp 	Colored ring pilot lamp	LAS0-K-EB/△/▲/◎		R G Y O B W ◎ Protective Degree: IP40, IP65
Flat Head 	Momentary	LAS0-K-□/△/◎		R G Y O B W N ◎ Protective Degree: IP40, IP65
	Alternated	LAS0-K-□Z/△/◎		
Flat Head 	Momentary	LAS0-K-□EB/△/◎		R G Y O B W N ◎ Protective Degree: IP40, IP65
	Alternate	LAS0-K-□ZEB/△/◎		
Illuminated Flat Head 	Momentary	LAS0-K-□D/△/▲/◎		R G Y O B W ◎ Protective Degree: IP40, IP65
	Alternate	LAS0-K-□ZD/△/▲/◎		
Ring Illuminated 	transparent ring, momentary	LAS0-K-□EA/△/▲/◎		R G Y O B W ◎ Protective Degree: IP40, IP65
	transparent ring, alternate	LAS0-K-□ZEA/△/▲/◎		

LAS0 series K type pushbutton switch

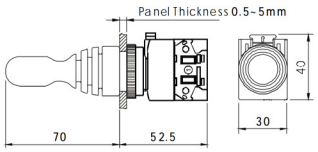
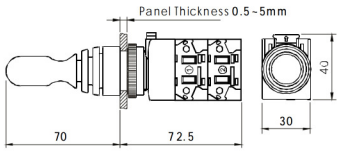
Product Cutline

Shape	Operating Type	Type Number	Dimension	Remark
Ring Illum 	Colored ring, momentary	LAS0-K-□EB/△/▲/◎		R G Y O B W ◎ Protective Degree: IP40, IP65
	Colored ring, alternate	LAS0-K-□ZEB/△/▲/◎		
Metal Flat Head 	Momentary	LAS0-K-□P/◎		◎ Protective Degree: IP40, IP65
	Alternate	LAS0-K-□ZP/◎		
Metal Domed Head 	Momentary	LAS0-K-□Q/◎		◎ Protective Degree: IP40, IP65
	Alternate	LAS0-K-□ZQ/◎		
A Type Mushroom 	Momentary	LAS0-K-□MA/△/◎		R G ◎ Protective Degree: IP40, IP65
	Alternate	LAS0-K-□ZMA/△/◎		
A Type Illuminated Mushroom 	Momentary	LAS0-K-□MA/△/▲/◎		R G ◎ Protective Degree: IP40, IP65
	Alternate	LAS0-K-□ZMA/△/▲/◎		
B Type Mushroom 	Momentary	LAS0-K-□MB/△/◎		R ◎ Protective Degree: IP40, IP65
	Alternate	LAS0-K-□ZMB/△/◎		
A Type Emergency stop switch 	Push-lock Turn-reset	LAS0-K-□TSA/△/◎		R G ◎ Protective Degree: IP40, IP65

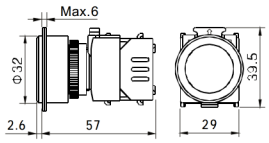
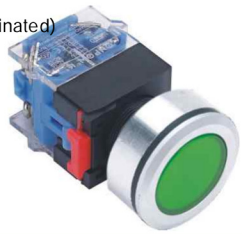
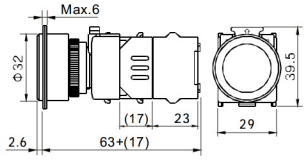
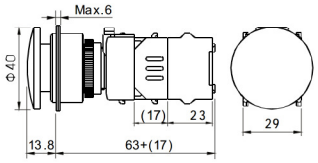
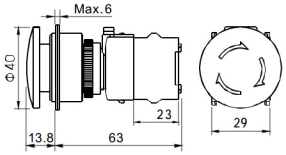
LAS0 series K type pushbutton switch

Shape	Operating Type	Type Number	Dimension	Remark
Selector Switch 	2 position maintain	LAS0-K-☐X/21/◎		N Protective Degree: IP40, IP65
	2 position return	LAS0-K-☐X/23/◎		
	3 position maintain	LAS0-K-☐X/31/◎		
	3 position half return	LAS0-K-☐X/32/◎		
	3 position return	LAS0-K-☐X/33/◎		
A Type Lever Switch 	2 position maintain	LAS0-K-☐XA/21/◎		N Protective Degree: IP40, IP65
	2 position return	LAS0-K-☐XA/23/◎		
	3 position maintain	LAS0-K-☐XA/31/◎		
	3 position half return	LAS0-K-☐XA/32/◎		
	3 position return	LAS0-K-☐XA/33/◎		
B Type Lever Switch 	2 position maintain	LAS0-K-☐XB/21/△/◎		R G Y N Protective Degree: IP40, IP65
	2 position return	LAS0-K-☐XB/23/△/◎		
	3 position maintain	LAS0-K-☐XB/31/△/◎		
	3 position half return	LAS0-K-☐XB/32/△/◎		
	3 position return	LAS0-K-☐XB/33/△/◎		
C Type Lever Switch 	2 position maintain	LAS0-K-☐XC/21/◎		Protective Degree: IP40, IP65
	2 position return	LAS0-K-☐XC/23/◎		
	3 position maintain	LAS0-K-☐XC/31/◎		
	3 position half return	LAS0-K-☐XC/32/◎		
	3 position return	LAS0-K-☐XC/33/◎		
Key-Lock Switch 	2 position maintain	LAS0-K-☐Y/21/△/◎		R G N Protective Degree: IP40,IP65 Key can be customized unremovable at assigned position.
	2 position return	LAS0-K-☐Y/23/△/◎		
	3 position maintain	LAS0-K-☐Y/31/△/◎		
	3 position half return	LAS0-K-☐Y/32/△/◎		
	3 position return	LAS0-K-☐Y/33/△/◎		
Double-position (can be illuminated) 	Double position	LAS0-K-☐S/▲		R G Protective Degree: IP40

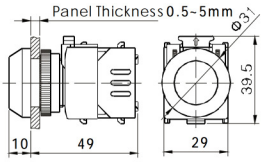
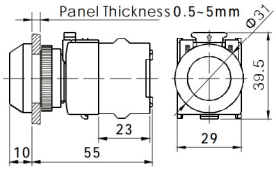
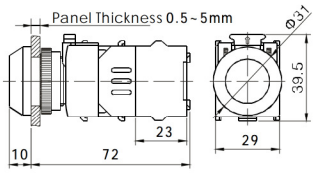
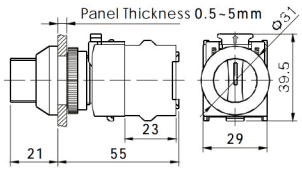
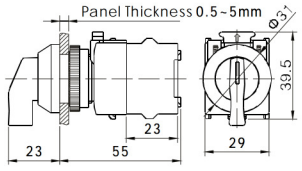
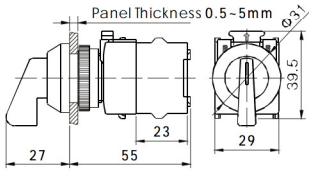
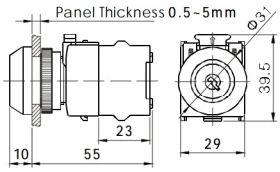
LAS0 Series K type Rocker Switch

Shape	Operating Type	Type Number	Dimension	Remark
 Rocker Switch 2 Position	Two position rocker operation	LAS0-K-□C21		N Protective Degree: IP67
	Two position return rocker operation	LAS0-K-□C23		
 Rocker Switch 4 Position	Four position rocker operation	LAS0-K-□C41		N Protective Degree: IP67
	Four position return rocker position	LAS0-K-□C43		

LAS0 Series K Type Pushbutton Switch(Φ30mm)

Shape	Operating Type	Type Number	Dimension	Remark
Pilot Lamp 	Pilot Lamp	LAS0-K-D30/△/▲		R G Y O B W
Round Flat (can be illuminated) 	Momentary	LAS0-K-□30/△/▲		R G Y O B W N The black can't be used with lamp
	Latching	LAS0-K-□■30/△/▲		
Mushroom (can be illuminated) 	Momentary	LAS0-K-□M30/△/▲		R G Head Dimension: Φ 40mm, Φ 60mm
	Latching	LAS0-K-□ZM30/△/▲		
Emergency Stop 	Push-lock Turn-reset	LAS0-K-□TS30/△		R G Head Dimension: Φ 40mm

Product Cutline of Economical Type

Shape	Operating Type	Type Number	Dimension	Remark
Economical Pilot Lamp 	Pilot Lamp	LAS0-KE-D/△/▲/◎		R G Y O B W Protective Degree: IP40, IP65
Economical Flat Head 	Momentary	LAS0-KE-□/△/◎		R G Y O B W N Protective Degree: IP40, IP65
	Alternate	LAS0-KE-□Z/△/◎		
Economical Illuminated Flat Head 	Momentary	LAS0-KE-□D/△/▲/◎		R G Y O B W N Protective Degree: IP40, IP65
	Alternate	LAS0-KE-□ZD/△/▲/◎		
Economical Selector Switch 	L R 2 position maintain	LAS0-KE-□X/21/◎		N Protective Degree: IP40, IP65
	L R 2 position return	LAS0-KE-□X/23/◎		
	L C R 3 position maintain	LAS0-KE-□X/31/◎		
	L C R 3 position half return	LAS0-KE-□X/32/◎		
	L C R 3 position return	LAS0-KE-□X/33/◎		
Economical A Type Lever Switch 	L R 2 position maintain	LAS0-KE-□XA/21/◎		N Protective Degree: IP40, IP65
	L R 2 position return	LAS0-KE-□XA/23/◎		
	L C R 3 position maintain	LAS0-KE-□XA/31/◎		
	L C R 3 position half return	LAS0-KE-□XA/32/◎		
	L C R 3 position return	LAS0-KE-□XA/33/◎		
Economical B Type Lever Switch 	L R 2 position maintain	LAS0-KE-□XB/21/△/◎		R G Y N Protective Degree: IP40, IP65
	L R 2 position return	LAS0-KE-□XB/23/△/◎		
	L C R 3 position maintain	LAS0-KE-□XB/31/△/◎		
	L C R 3 position half return	LAS0-KE-□XB/32/△/◎		
	L C R 3 position return	LAS0-KE-□XB/33/△/◎		
Economical Key-lock Switch 	L R 2 position maintain	LAS0-KE-□Y/21/△/◎		N Protective Degree: IP40, IP65
	L R 2 position return	LAS0-KE-□Y/23/△/◎		
	L C R 3 position maintain	LAS0-KE-□Y/31/△/◎		
	L C R 3 position half return	LAS0-KE-□Y/32/△/◎		
	L C R 3 position return	LAS0-KE-□Y/33/△/◎		