

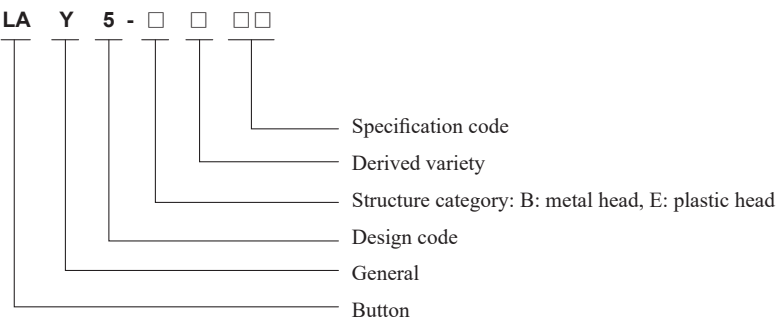
LAY5 Series Button Switch



1 Overview

LAY5 series button switch is suitable for AC 50Hz industrial control circuit with rated working voltage up to 380V and with DC working voltage up to 220V as line control for electrical devices such as magnetic starter, contactor, and relay, and for light signal indication application with its indicator button.

2 Type Designation



Derived variety and specification code

Derived variety	Specificaion code		
A: Flat button C: φ40 mushroom reset button R: φ60 mushroom reset button	1: White 2: Black 3: Green 4: Red 5: Yellow 6: Blue	1: NO 2: NC 3: 2 NO 4: 2 NC 5: NO + NC	-
S: Mushroom self-lock, rotation reset	4: φ30 5: φ40	4: Red	2: NC
D: Knob J: Rotary handle G: Key button	2: Two-position lock 3: Three-position lock 4: Two-position reset 5: Three-position reset	1: NO 2: NC 3: Two NO 4: Two NC 5: NO + NC	-
W3: Illuminated button	1: White 3: Green 4: Red 5: Yellow 6: Blue	6: Direct type 7: Resistance type	1: NO 2: NC 3: Two NO 4: Two NC 5: NO + NC
BE: Accessories (without structural classification code)	101: NO contact set 102: NC contact set	-	-

LAY5 Series Button Switch



3 Technical Parameters

Table 1

Rated insulation voltage U_i (V)	660		
Resistive current I_{th} (A)	10		
Rated working voltage U_e (V)		380	220
Rated working current I_e (A)	AC-15	2.5	-
	DC-13	-	0.3

Table 2

Power frequency withstand voltage	AC 1890V, 50Hz 5s		
Contact resistance	$\leq 50m\Omega$		
Mechanical life	Flat-end and mushroom head: 1 million times; illuminated type: 300,000 times; others: 100,000		
Electrical life	Flat-end, mushroom head, DC: 200,000 times; others: 100,000 times		
Protection grade	IP40		

Rated voltage (V)	Direct-type						
Electric light source	6.3	12	24	48	110	220	380
LED light	√	√	√	-	-	-	-
Neon light	√	√	√	√	√	√	√


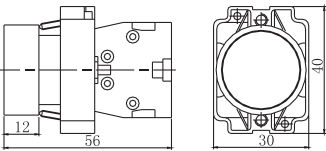

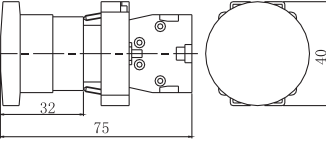

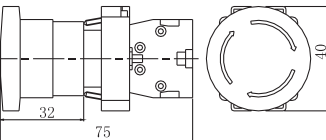

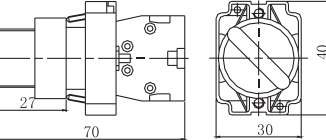

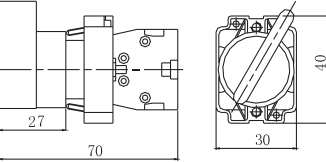

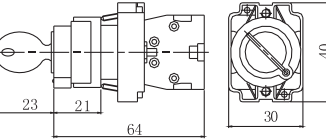
4 Operating Conditions

- 4.1 Ambient temperature: Not exceed $+40^{\circ}\text{C}$, and the mean temperature within 24h does not exceed $+35^{\circ}\text{C}$; the lower limit of ambient air temperature is -5°C .
- 4.2 Altitude: Not exceed 2,000 meters.
- 4.3 Atmospheric condition: The relative air humidity does not exceed 50% at the highest temperature $+40^{\circ}\text{C}$; a higher relative humidity is allowed at a lower temperature, such as up to 90% at $+20^{\circ}\text{C}$; special measures are taken for condensation occurred occasionally due to temperature changes.
- 4.4 Pollution degree: 3.
- 4.5 Installation category: Class II.


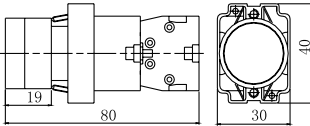

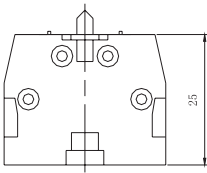

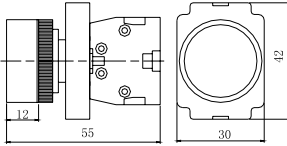

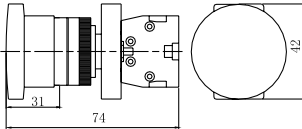

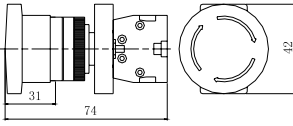
5 Structure Features

- 5.1 The metal button adopts anti-play operating head, and cannot be removed from the front side.
- 5.2 All contacts have dual functions of switching circuit and self-cleaning, and the contacting reliability can still be guaranteed under low voltage and small current.
- 5.3 The NO contact set is independent from the NC contact set, and they can be combined as required for convenient replacement.
- 5.4 The concealed wiring terminal is used for safer and more reliably operation. The operating head of metal-head button and its base are made of galvanized alloy, providing artistic shape and solid structure.
- 5.5 BA9S lamp base is used for both illuminated bush and signal lamp, and different light source is selected as required.


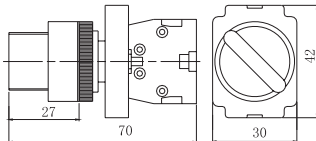

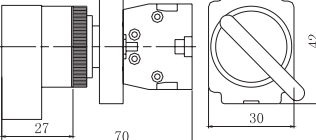

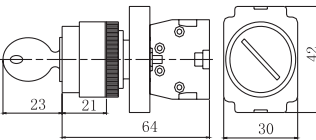

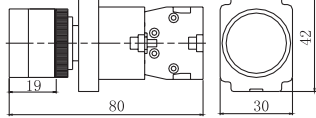
LAY5 Series Button Switch

Sketch	Outline drawing and dimensions	Enterprise model	Remarks
 <p>Flat button</p>		LAY5-BA21	Black 1 NO
		LAY5-BA31	Green 1 NO
		LAY5-BA42	Red 1 NC
		LAY5-BA51	Yellow 1 NO
		LAY5-BA61	Blue 1 NO
		LAY5-BA25	Black 1 NO + 1 NC
		LAY5-BA35	Green 1 NO + 1 NC
		LAY5-BA45	Red 1 NO + 1 NC
 <p>Mushroom self-reset</p>		LAY5-BC21	Φ40 Black 1 NO
		LAY5-BC31	Φ40 Green 1 NO
		LAY5-BC42	Φ40 Red 1 NC
		LAY5-BC51	Φ40 Yellow 1 NO
		LAY5-BR42	Φ60 Red 1 NC
 <p>Mushroom self-lock</p>		LAY5-BS442	Φ30 Red 1 NC
		LAY5-BS542	Φ40 Red 1 NC
		LAY5-BD21	Two-position lock 1 NO
		LAY5-BD25	Two-position lock 1 NO + 1 NC
		LAY5-BD33	Three-position lock 2 NO
		LAY5-BD41	Two-position reset 1 NO
		LAY5-BD45	Two-position reset 1 NO + 1 NC
		LAY5-BD53	Three-position reset 2 NO
		LAY5-BJ21	Two-position lock 1 NO
		LAY5-BJ25	Two-position lock 1 NO + 1 NC
		LAY5-BJ33	Three-position lock 2 NO
		LAY5-BJ41	Two-position reset 1 NO
		LAY5-BJ45	Two-position reset 1 NO + 1 NC
		LAY5-BJ53	Three-position reset 2 NO
		LAY5-BG21	Two-position lock 1 NO
		LAY5-BG25	Two-position lock 1 NO + 1 NC
		LAY5-BG33	Three-position lock 2 NO
		LAY5-BG41	Two-position reset 1 NO
		LAY5-BG53	Three-position reset 2 NO

LAY5 Series Button Switch

Sketch	Outline drawing and dimensions	Enterprise model		Remarks
 Illuminated button		LAY5-BW3361	Green	Direct-type 1 NO
		LAY5-BW3462	Red	Direct-type 1 NO
		LAY5-BW3561	Yellow	Direct-type 1 NO
				6.3~380V
		LAY5-BE101		NO contact set
		LAY5-BE102		NC contact set
 Flat button		LAY5-EA21	Black	1 NO
		LAY5-EA31	Green	1 NO
		LAY5-EA42	Red	1 NC
		LAY5-EA51	Yellow	1 NO
		LAY5-EA61	Blue	1 NO
		LAY5-EA25	Black	1 NO + 1 NC
		LAY5-EA35	Green	1 NO + 1 NC
		LAY5-EA45	Red	1 NO + 1 NC
 Mushroom self-reset		LAY5-EC21	Φ40 Black	1 NO
		LAY5-EC31	Φ40 Green	1 NO
		LAY5-EC42	Φ40 Red	1 NC
		LAY5-EC51	Φ40 Yellow	1 NO
 Mushroom self-lock		LAY5-ES442	Φ30 Red	1 NC
		LAY5-ES542	Φ30 Red	1 NC

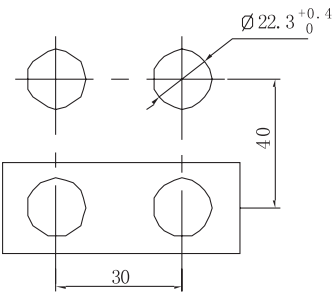
LAY5 Series Button Switch

Sketch	Outline drawing and dimensions	Enterprise model	Remarks		
		LAY5-ED21	Two-position lock	1 NO	
		LAY5-ED25	Two-position lock	1 NO + 1 NC	
		LAY5-ED33	Three-position lock	2 NO	
		LAY5-ED41	Two-position reset	1 NO	
		LAY5-ED45	Two-position reset	1 NO + 1 NC	
		LAY5-ED53	Three-position reset	2 NO	
		LAY5-EJ21	Two-position lock	1 NO	
		LAY5-EJ25	Two-position lock	1 NO + 1 NC	
		LAY5-EJ33	Three-position lock	2 NO	
		LAY5-EJ41	Two-position reset	1 NO	
		LAY5-EJ45	Two-position reset	1 NO + 1 NC	
		LAY5-EJ53	Three-position reset	2 NO	
		LAY5-EG21	Two-position lock	1 NO	
		LAY5-EG25	Two-position lock	1 NO + 1 NC	
		LAY5-EG33	Three-position lock	2 NO	
		LAY5-EG41	Two-position reset	1 NO	
		LAY5-EG53	Three-position reset	2 NO	
 Illuminated button		LAY5-EW3361	Green	Direct-type	1 NO
		LAY5-EW3462	Red	Direct-type	1 NC
		LAY5-EW3561	Yellow	Direct-type	1 NO
		LAY5-EW3371	Green	Ressitance-type	1 NO
		LAY5-EW3472	Red	Ressitance-type	1 NC
		LAY5-EW3571	Yellow	Ressitance-type	1 NO

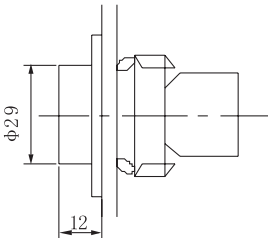
6.3~
380V

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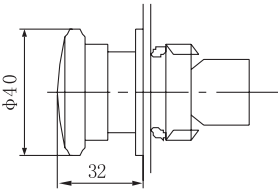
6 Outline and Installation Dimensions



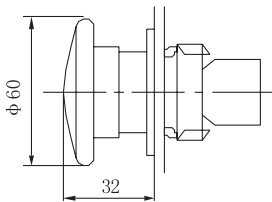
Mounting hole drawing (thick 1-6mm)



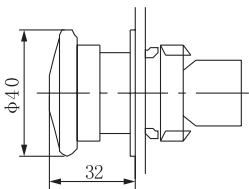
LAY5-BA..



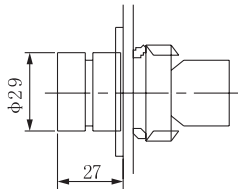
LAY5-BC..



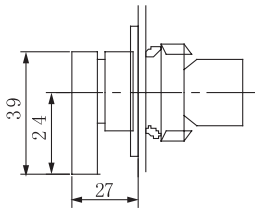
LAY5-BR..



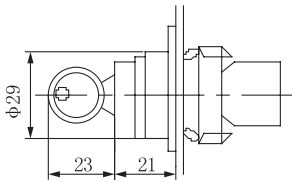
LAY5-BS5..



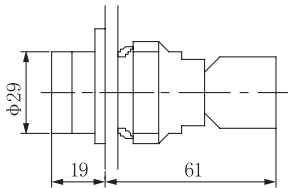
LAY5-BD..



LAY5-BJ..



LAY5-BG..



LAY5-BW..

LAY5 Series Button Switch

7 Ordering Notice

7.1 To order the separate button: specify model + color code

For example: LAY5-BA □ , number in □ means color;

□ number meaning: 1. White; 2. Black; 3. Green; 4. Red; 5. Yellow; 6. Blue.

7.2 To order the replaceable contact

For example: LAY5-BE10 □ ; number in □ means NO or NC;

□ number meaning: 1. NO; 2. NC.