

LA39-C1 Train Key Switch Siemens APT

TK Series Key Switch

- Vivid visual profile and elegant lines. The inclined screws are used for fixation and installation, which meet European and American strict, solid and reliable design philosophy.
- Ø 30.5mm mounting hole.
- The head highlights the ultrathin effect and effectively prevent the misoperation.
- The whole series are widely used in interior decoration and driver control fields of locomotives.



Application pic

Model

LA39-C1 - □ □ □ □ □ / □ □ □ □ □ □ □ □ □ □ □

- Product Applicable Category** TK: special model for locomotives
Rw: special model for driver control
- Mushroom Head Diameter** no mark: 40mm, 60: 60mm
- Head Shape** no mark: plat head H: high-position
- Action Function** no mark: knob positioning f: knob left resetting
fu: knob right resetting ffu: knob left and right resetting
- Key remove-out Position** no mark: without lock a: pull out from left ao: pull out from middle
au: pull out from right a ao au: pull out from any of the three positions
- Voltage Code** no mark: without light 21: AC/DC 6V 22: AC/DC 12V
23: AC/DC 24V 25: AC/DC 48V 26: AC/DC 110V
28: AC/DC 220V 31: AC 220V 32: AC 380V
- Color Code** r: red g: green b: blue y: yellow w: white k: black
- Symbol Code** no mark: without symbol Sxy: select the symbol code from the printed symbol table S99: custom-made special symbol
- Illuminated modular** no mark: without light D: with light
- Operating Mechanism** no mark: momentary pushbutton T: maintained pushbutton M: mushroom pushbutton MT: maintained mushroom pushbutton
Z: rotator release way of emergency stop pushbutton ZY: key released of emergency stop pushbutton X: short-handle two-position rotated pushbutton XS: short-handle three-position rotated pushbutton CX: long-handle two-position rotated pushbutton CXS: long-handle three-position rotated pushbutton
- Number of Contacts** NO: the number of normally open contacts NC: the number of normally closed contacts
- Contact code** no mark: quick-action type contact R: slow-action type contact (RW series are defaulted as slow-action types. No R is required)
- Main Pushbutton Model** Ø30mm

Main Technical Data

Standards	GB 14048.5 GB/T 7928-2003 IEC 61373-1999 IEC 60947.5 DIN5510.2
Rated Insulation Voltage	AC 660V
Uimp	AC 2500V 50Hz.1min
Ith	10A
Mechanical endurance	Normal buttons \geq 3 million times knobs \geq 300 thousand times key buttons \geq 50 thousand times emergency stop buttons \geq 50 thousand times
Electrical endurance	\geq 600 thousand times
Ambient Temperature	-25℃ ~ +55℃
Protection Class	IP54 for heads IP20 for contactor blocks (the guard cover for F4 connector shall be provided)
Impact Resistance Class	Duration 11ms maxim accelerated speed 15g comply with IEC600682-27
Vibration Resistance Class	Maximum accelerated speed 5g frequency range 10~500Hz comply with IEC60068 2-6
Contact Resistance	TK: \leq 50m Ω RW: \leq 30m Ω
Altitude	\leq 2000m
Relative Air Humidity	\leq 90% (the average temperature in this month \leq 25 $^{\circ}$ C)
Installation class	III
Pollution Class	Class 3

Contact Capacity

Quick-action Type	AC-15: 220V/2.5A 380V/1.5A 660V/0.8A DC-13: 24V/3.6A 48V/3A 110V/1A 220V/0.4A 440V/0.25A
Slow-action Type	AC-15: 220V/6A 380V/4A 660V/2A DC-13: 24V/6A 48V/3A 110V/1A 220V/0.5A 440V/0.25A

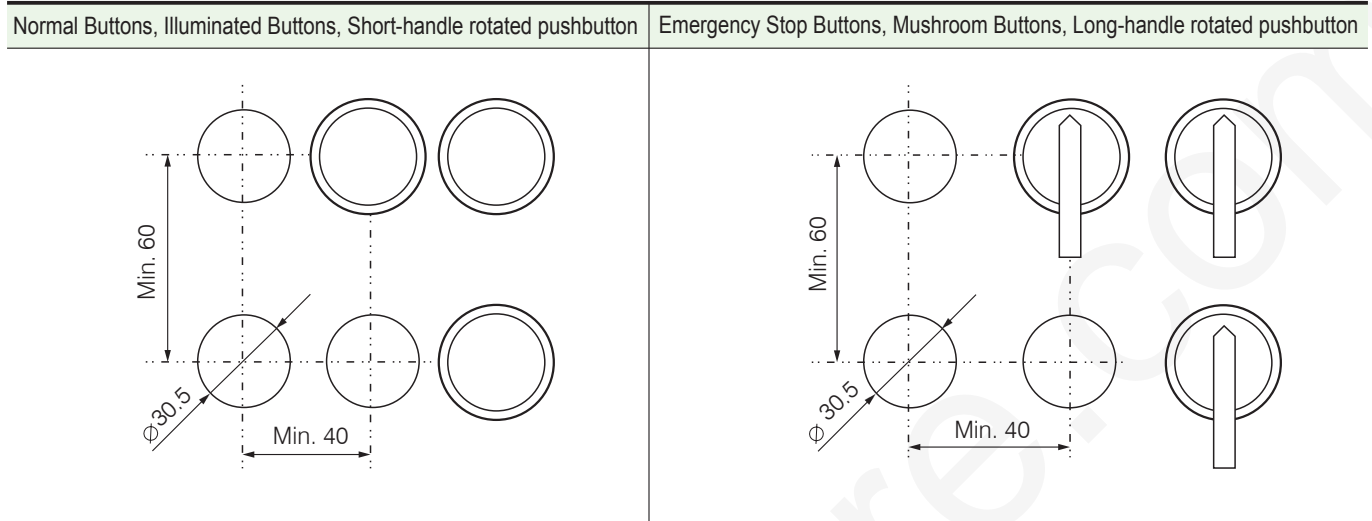
Component Material

Outer Ring of Head	Middle Seat of Installation	Head	Contact	Switch Enclosure	Contact Chip
AL (Black or Silver)	Zn & PBT	PC	AgNi	PC	Cu
AL (Black or Silver)	Zn & PBT	PC	AgNi+Gold	PC	Cu



Pushbutton Series

Installation Hole Sizes

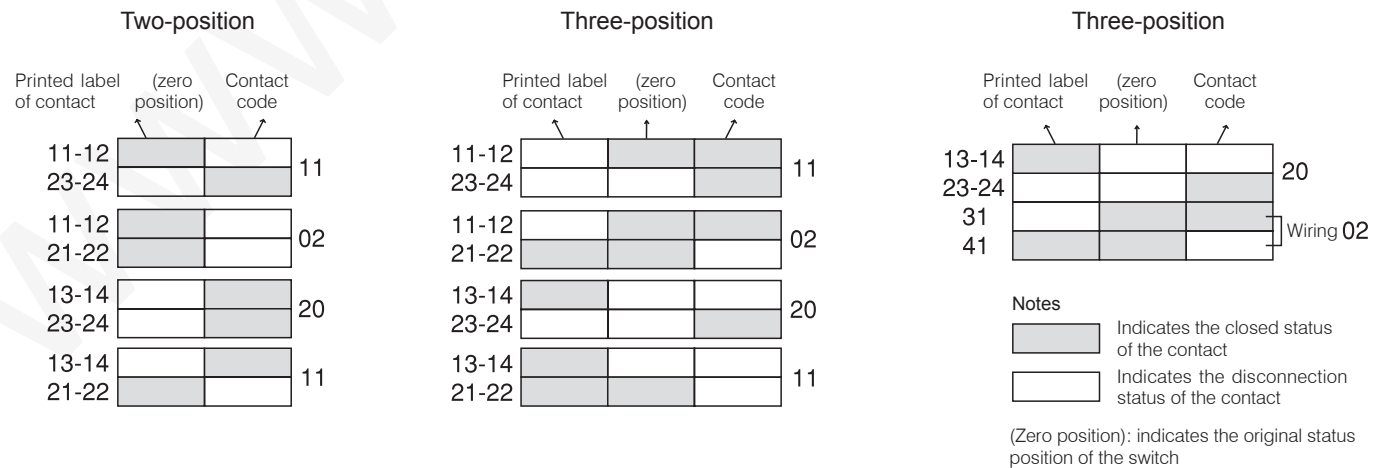


Attention: If the contactor block or illuminate components are installed by yourself, please check whether the hasps are locked completely or not after the installation.

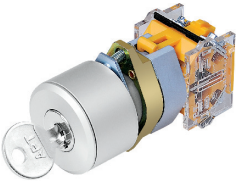
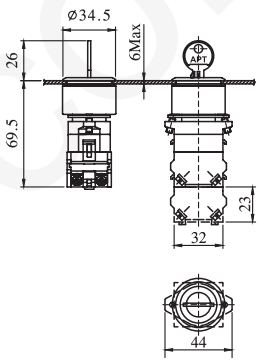
Printed Labels of Contacts

The figures of the contact wiring terminal are indicated by two digits, "1" at tens place indicates the 1st pair of contacts of the 1st contactor block, and "2" at tens place indicates the 2nd pair of contacts of the 1st contactor block. "1 and 2" at ones place indicates the two wiring terminals of the normally closed contact and "3 and 4" at ones place indicates the two wiring terminals of the normally open contact.

Functional Diagram for contactor block of rotated pushbutton and Key-lock pushbutton



Product specifications

Name	Type	Handle Position and Model		Key removeout Position	External Size	
Key-lock pushbutton		Two-position	Positioning L R 90°	LA39-C1-■Y/▲-TK	a: removeout from left ao: remove out from middle au: remove out from right a ao au: remove out from any position	
			Right resetting L R 90°	LA39-C1-■Y/▲fu-TK		
		Three-position	Positioning L C R 45° 45°	LA39-C1-■YS/▲-TK		
			Left resetting L C R 45° 45°	LA39-C1-■YS/▲f-TK		
			Right resetting L C R 45° 45°	LA39-C1-■YS/▲fu-TK		
			Left & right resetting L C R 45° 45°	LA39-C1-■YS/▲ffu-TK		

Notes:

1. ■ filled with the number of NO and NC, ▲ filled with the key remove out position.
2. For spring return key-lock pushbutton, the key remove out position shall not be spring return acting position.

Application projects

Category	Project Name	Places of Application	All Products
Large Railways	Various types of rail collection train set tamping machines, screen scarifiers, ballast distributing and trimming machines, material transportation machines, rail status verification machines etc.	Built-in, car body, driver control etc.	Whole series of APT products
	Official vehicle power distribution panels, special emergency power supply boxes for air-conditioned trains, train enclosures	Enclosures of 25T, 25K series of large railway passenger trains	Whole series of APT products
	SS9 locomotive, SS8 locomotive, SS7C locomotive, SS7D locomotive, 25G, 25K, 25T (locomotives)	DC600V power supply system cabinets of locomotives	1. Cam switches, 2. Two-color lights, 3. Key buttons, 4. Maintain buttons, 5. Normal buttons, 6. Acoustic and optical separately controlled buzzers, 7. Triangular key buttons (normally used in 25 series locomotives)
	Qinghai-Tibet Railway		1. Cam switches, 2. Two-color lights
Intercity Multiple Units (Trains)	Multiple units used for 200km	Driver control station and carriage enclosures	1. Cam switches, 2. Two-color lights, 3. Quadrangular key switches
	Multiple units used for 250km	Driver control station and carriage enclosures	1. Combined indications, 2. Buzzers, 3. Triangular key switches
	Multiple units used for 300km	Driver control station and carriage enclosures	1. Combined indications, 2. Illuminated buttons
	Multiple units used for 350km	Driver control station and carriage enclosures	1. Combined indications, 2. Illuminated buttons
City Metros	Chengdu Metro Lines	Control of metro stations	Whole series of APT products
	Chongqing Rail Line 3	Control of metro stations	Whole series of APT products
	Bombay Light Rail, India	Indications of light rail trains	35 series train door indicator lights
	Changchun Light Rail	Driver control station of light rail	TK series special pushbuttons and two-color indicator lights
	City Rail Vehicle Door Control Series	Auto door locks	Triangular key buttons, quadrangular key buttons and TK series special pushbuttons
	Chongqing Rail Line 3	Driver control station of metro	Whole series of APT products
Metro Base Stations	Beijing Metro Lines 1, 4 Chengdu Metro Lines Tianjin Metro Lines Guangzhou Metro Lines 3, 4, 5	Built-in, car body and driver control etc.	1. TK series pushbuttons, 2. Lead seal series knobs and cam switches, 3. Indicator lights, 4. Buzzers, 5. RW series pushbuttons
	Shanghai Metro Lines 2, 6, 7, 8, 9, 10, 11, 13 Shenzhen Metro Line 2 Shanghai Hongqiao Transportation Hub etc.	Various communication, control and power distribution systems etc.	Whole series of APT products

Model Selection of Rail Transportation products Pushbutton, Indicator/Buzzer, Cam Switch Series

