LA39 Train Selector Switch Siemens APT

TK Series Selector 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.



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)



Application pic

Model 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** no mark: without lock a: pull out from left ao: pull out from middle au: pull out from right a ao ao: pull out from any of the three positions **Position** 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 no mark: momentary pushbutton T: maintained pushbutton M: Operating mushroom pushbutton MT: maintained mushroom pushbutton Mechanism Z: rotator release way of emergency stop pushbutton ZY: key released of emergency stop pushbutton X: short-handle twoposition 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

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≥3 million times knobs ≥300 thousand times key buttons≥50 thousand times emergency stop buttons≥50 thousand times					
Electrical endurance	≥600 thousand times					
Ambient Temperature	-25 C ~+55 C					
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: $\leq 50 \text{m}\Omega$ RW: $\leq 30 \text{m}\Omega$					
Altitude	≤2000m					
Relative Air Humidity	≤90% (the average temperature in this month ≤25□)					
Installation class						
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



Installation Hole Sizes

Normal Buttons, Illuminated Buttons, Short-handle rotated pushbutton

Emergency Stop Buttons, Mushroom Buttons, Long-handle rotated pushbutton

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

Two-position Three-position Three-position Printed label (zero Contact Printed label (zero Contact Printed label (zero Contact of contact position) code of contact position) code of contact position) code 11-12 11-12 13-14 20 23-24 23-24 23-24 31 11-12 11-12 Wiring 02 02 02 41 21-22 21-22 13-14 13-14 Notes 20 20 23-24 23-24 Indicates the closed status of the contact 13-14 13-14 Indicates the disconnection 11 11 21-22 21-22 status of the contact (Zero position): indicates the original status position of the switch

LA39 Selector Switch Series

Rotated Pushbutton

Name	Туре	Handle Position and Model			Color	External Size	
Short- handle rotated pushbutton		Two-position	Positioning L R	LA39-C1- ■ X/ ▲ -TK		-(1	
			Right resetting L R 90°	LA39-C1-■X/ ▲ fu-TK	Opaque Red-r Green-g Yellow-y Black-k	Ø34.5 XEWG	
		Three-position	Positioning L C R 45° 45°	LA39-C1-■XS/ ▲ -TK			
			L C R	LA39-C1-■XS/ ▲ f-TK		32	
			Right resetting L C R 45° 45°	LA39-C1-■XS/ ▲ fu-TK		44	
			Left & right resetting L C R 45° 45°	LA39-C1-■XS/ ▲ ffu-TK			
Long- handle rotated pushbutton		Two-position	Positioning L R	LA39-C1-■CX/▲-TK	Opaque Red-r Green-g Yellow-y Black-k	©34.5 xeW9 32 32 32 44	
			Right resetting L R 90°	LA39-C1-■CX/ ▲ fu-TK			
		Three-position	Positioning L C R 45° 45°	LA39-C1-■CXS/▲-TK			
			Left resetting L C R 45°	LA39-C1-■CXS/▲f-TK			
			Right resetting L C R 45° 45°	LA39-C1-■CXS/▲fu-TK			
			Left & right resetting L C R 45° 45°	LA39-C1-■CXS/▲ffu-TK			

Notes:

- 1. before the '/' filled with the number of the NO and NC.
- 2. ▲ filled with color code.

Application projects

Category	Project Name	Places of Application	All Products
Large Railways	Various types of rail collection train set tamping machines, screen scarifies, 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	 Cam switches, 2. Two-color lights, Key buttons, 4. Maintain buttons, Normal buttons, 6. Acoustic and optical separately controlled buzzers, Triangular key buttons (normally used in 25 series locomotives)
	Qinghai-Tibet Railway		Cam switches, Two-color lights
Intercity Multiple Units (Trains)	Multiple units used for 200km	Driver control station and carriage enclosures	Cam switches, 2. Two-color lights, Quadrangular key switches
	Multiple units used for 250km	Driver control station and carriage enclosures	 Combined indications, 2. Buzzers, Triangular key switches
	Multiple units used for 300km	Driver control station and carriage enclosures	 Combined indications, Illuminated buttons
	Multiple units used for 350km	Driver control station and carriage enclosures	Combined indications, Illuminated buttons
	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
City Metros	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
	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
Metro Base Stations	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



