

SLD Series

Electromagnetic Lock Safety Door Switch



CE

SLB-D

SLC-D

SLD

SLAS-D

- 6 sets of gold-plated contacts
- 4 types of contact combinations
- Locking force 1300N
- DC24V/AC110V
- Indicator light + emergency unlocking
- Front/side emergency unlocking optional
- 11 types of operating keys

Application



Naming rule

Product
Family
Operating
Key

Safety Latch



Official Website

Lock & unlock method	Head material	Position	Cable Exit Type	Switch contact type	Part number	
Electromagnetic Locking / Mechanical Release	Metal	Front	M20	Door Monitoring Contacts Locking Monitoring Contacts 2NC/1NO+2NC/1NO	SLDM-ET2E2FF-D	
				3NC+2NC/1NO	SLDM-ET3B2FF-D	
				2NC/1NO+3NC	SLDM-ET2E3DF-D	
				3NC+3NC	SLDM-ET3B3DF-D	
			PG13.5	2NC/1NO+2NC/1NO	SLDM-ET2E2FF-P	
				3NC+2NC/1NO	SLDM-ET3B2FF-P	
				2NC/1NO+3NC	SLDM-ET2E3DF-P	
				3NC+3NC	SLDM-ET3B3DF-P	
		Side	M20	2NC/1NO +2NC/1NO	SLDM-ET2E2FS-D	
				3NC+2NC/1NO	SLDM-ET3B2FS-D	
				2NC/1NO+3NC	SLDM-ET2E3DS-D	
				3NC + 3NC	SLDM-ET3B3DS-D	
			PG13.5	2NC/1NO+2NC/1NO	SLDM-ET2E2FS-P	
				3NC+2NC/1NO	SLDM-ET3B2FS-P	
				2NC/1NO + 3NC	SLDM-ET2E3DS-P	
				3NC+3NC	SLDM-ET3B3DS-P	
		Resin	Front	M20	2NC/1NO+ 2NC/1NO	SLDS-ET2E2FF-D
					3NC+2NC/1NO	SLDS-ET3B2FF-D
					2NC/1NO+3NC	SLDS-ET2E3DF-D
					3NC + 3NC	SLDS-ET3B3DF-D
				PG13.5	2NC/1NO+2NC/1NO	SLDS-ET2E2FF-P
					3NC+2NC/1NO	SLDS-ET3B2FF-P
					2NC/1NO + 3NC	SLDS-ET2E3DF-P
					3NC+3NC	SLDS-ET3B3DF-P
	Side		M20	2NC/1NO+2NC/1NO	SLDS-ET2E2FS-D	
				3NC+2NC/INO	SLDS-ET3B2FS-D	
				2NC/1NO+3NC	SLDS-ET2E3DS-D	
				3NC+3NC	SLDS-ET3B3DS-D	
			PG13.5	2NC/1NO + 2NC/1NO	SLDS-ET2E2FS-P	
				3NC+2NC/1NO	SLDS-ET3B2FS-P	
				2NC/1NO + 3NC	SLDS-ET2E3DS-P	
				3NC+3NC	SLDS-ET3B3DS-P	

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Mechanical Locking / Electromagnetic Release	Metal	Front	M20	Door Monitoring Contacts Locking Monitoring Contacts		
				2NC/1NO+2NC/1NO	SLDM-MT2E2FF-D	
				3NC+2NC/1NO	SLDM-MT3B2FF-D	
				2NC/1NO+3NC	SLDM-MT2E3DF-D	
			3NC+3NC	SLDM-MT3B3DF-D		
			PG13.5	2NC/1NO+2NC/1NO	SLDM-MT2E2FF-P	
				3NC+2NC/1NO	SLDM-MT3B2FF-P	
				2NC/1NO+3NC	SLDM-MT2E3DF-P	
		3NC+3NC		SLDM-MT3B3DF-P		
		Side	M20	2NC/1NO +2NC/1NO	SLDM-MT2E2FS-D	
				3NC+2NC/1NO	SLDM-MT3B2FS-D	
				2NC/1NO+3NC	SLDM-MT2E3DS-D	
				3NC + 3NC	SLDM-MT3B3DS-D	
			PG13.5	2NC/1NO+2NC/1NO	SLDM-MT2E2FS-P	
				3NC+2NC/1NO	SLDM-MT3B2FS-P	
				2NC/1NO + 3NC	SLDM-MT2E3DS-P	
				3NC+3NC	SLDM-MT3B3DS-P	
		Resin	Front	M20	2NC/1NO+ 2NC/1NO	SLDS-MT2E2FF-D
					3NC+2NC/1NO	SLDS-MT3B2FF-D
					2NC/1NO+3NC	SLDS-MT2E3DF-D
	3NC + 3NC				SLDS-MT3B3DF-D	
	PG13.5			2NC/1NO+2NC/1NO	SLDS-MT2E2FF-P	
				3NC+2NC/1NO	SLDS-MT3B2FF-P	
				2NC/1NO + 3NC	SLDS-MT2E3DF-P	
				3NC+3NC	SLDS-MT3B3DF-P	
	Side		M20	2NC/1NO+2NC/1NO	SLDS-MT2E2FS-D	
				3NC+2NC/1 tNO	SLDS-MT3B2FS-D	
				2NC/1NO+3NC	SLDS-MT2E3DS-D	
				3NC+3NC	SLDS-MT3B3DS-D	
			PG13.5	2NC/1NO + 2NC/1NO	SLDS-MT2E2FS-P	
				3NC+2NC/1NO	SLDS-MT3B2FS-P	
				2NC/1NO + 3NC	SLDS-MT2E3DS-P	
				3NC+3NC	SLDS-MT3B3DS-P	

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| SLD系列

Part number		SLD□- □T2F2F□-□		
Housing material		PA66 Flame retardant		
Contact material		Silver alloy gilding		
Indicator	Rated voltage	10~115VAC/DC		
	Rated current	1mA		
	Light color	Green		
Solenoid	Rated voltage	DC24V±5%		
	Rated current	200mA (Initial Value)		
	Rated power	4.8W		
	Insulation class	Class B (130°C)		
Applicable standard		IEC/EN60947-5-1/GB14048.5-2017		
Security level and category		Ple/Cat4 Category(Based on ISO13849) Type2 Category(Based on ISO14119)		
Protection degree		IP67(EN60947-5-1 Except key operation hole)		
Service life		Mechanical:≥1 million times Electric:≥150,000 times		
Tensile strength at locking		1300N		
Rated insulation voltage (Ui)		300V		
Rated impulse withstand voltage (Uimp)		2.5kV		
Rated open thermal current (Ith)		10A		
Usage category		AC-15	DC-13	DC-13
Rated operating voltage (Ue)		240V	30V	250V
Rated operating current (Ie)		3A	2.3A	0.27A
Rated limited short circuit current		1000A		
Forced disengagement force		>80N		
Forced disengagement distance		>10mm		
Allowable operating speed		0.05-0.5m/s		
Allowable operating frequency		Max. 20 operations/min		
Ambient temperature		-20°C-60°C, No icing		
Ambient humidity		≤85 %RH		

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Wiring diagram shows the operation key inserted and locked

Part number	Contact type	Wiring diagram		Contact action	
		Door monitoring	Lock monitoring	Contact conduction	Contact disconnection
	Door monitoring + lock monitoring				
SLD □-□ T2E2F □-□	2NC/1NO+2NC/1NO			<p>Lock position</p>	
SLD □-□ T3B2F □-□	3NC + 2NC/1NO			<p>Lock position</p>	
SLD □-□ T2E3D □-□	2NC/1NO + 3NC			<p>Lock position</p>	
SLD □-□ T3B3D □-□	3NC + 3NC			<p>Lock position</p>	

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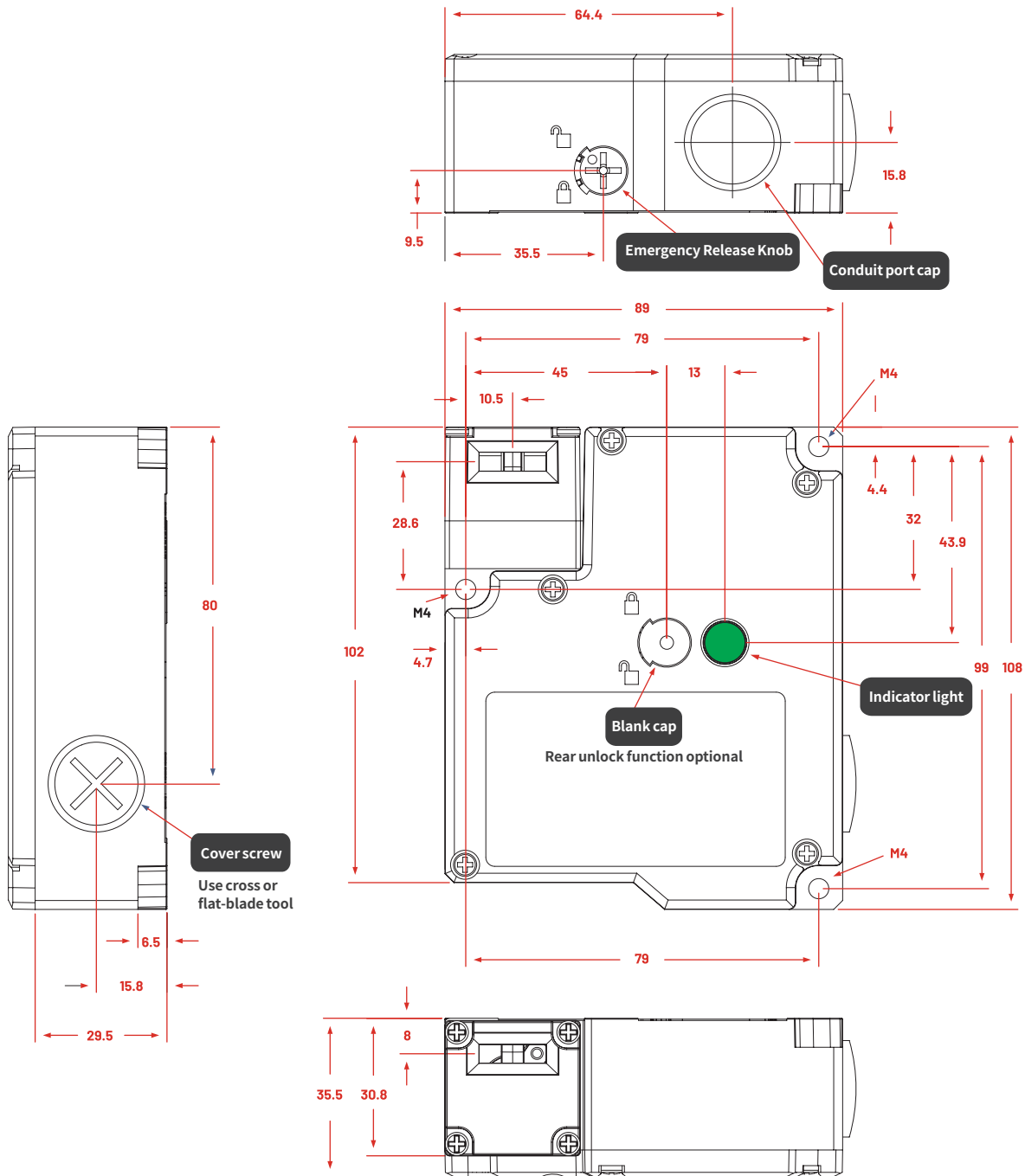
Operating Key

Safety Latch



SLD Series Installation Dimensions-Standard type

Units of Measurement | mm



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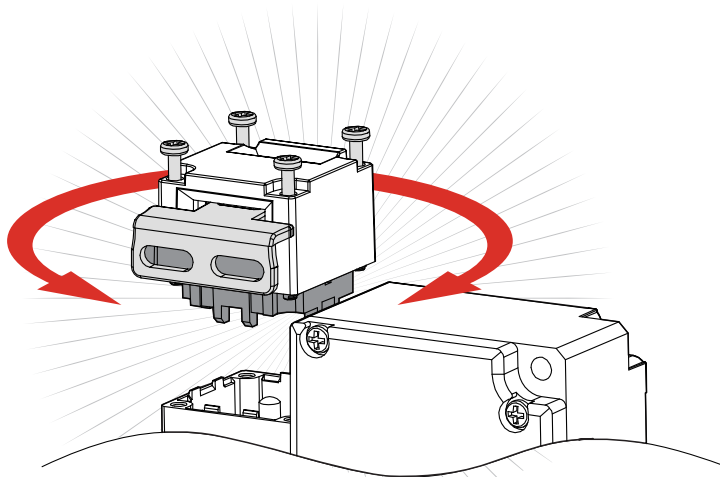
Product Family
Operating Key

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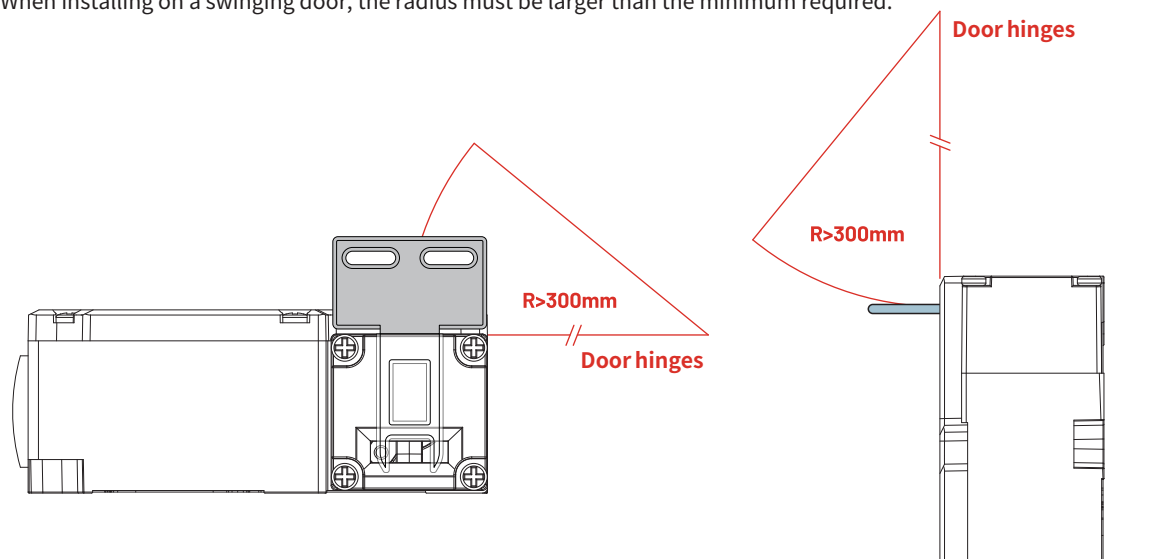


Installation Precautions

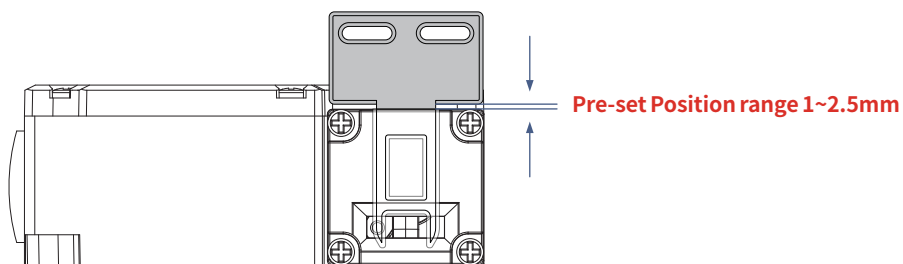
① First, please insert the operating key into the head operation hole. Then, loosen the 4 screws at the top of the head. Finally, rotate the head to select the appropriate operating key hole for installation.



② When installing on a swinging door, the radius must be larger than the minimum required.



③ Please install the switch and operating key within the pre-set position range of 1 to 2.5mm.



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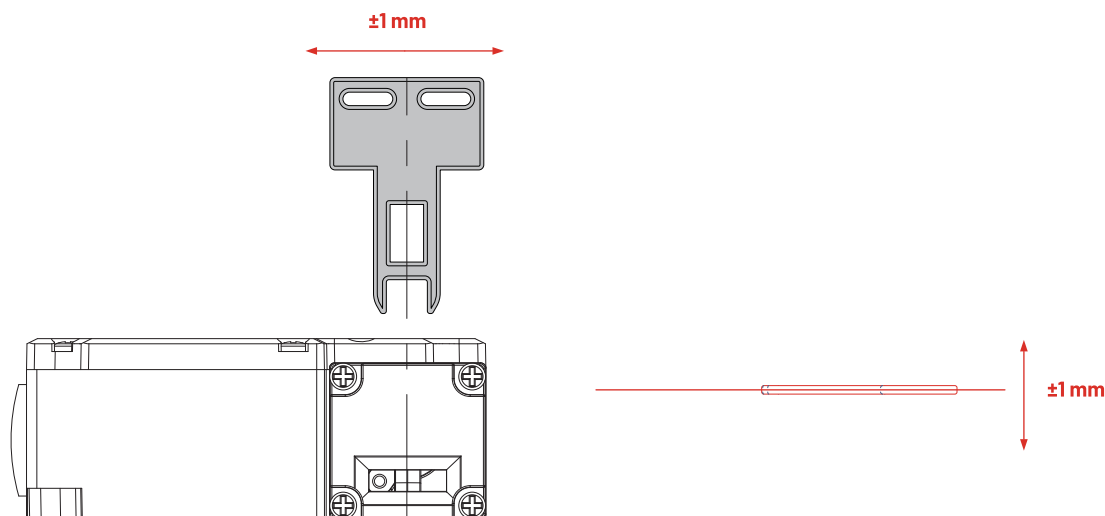
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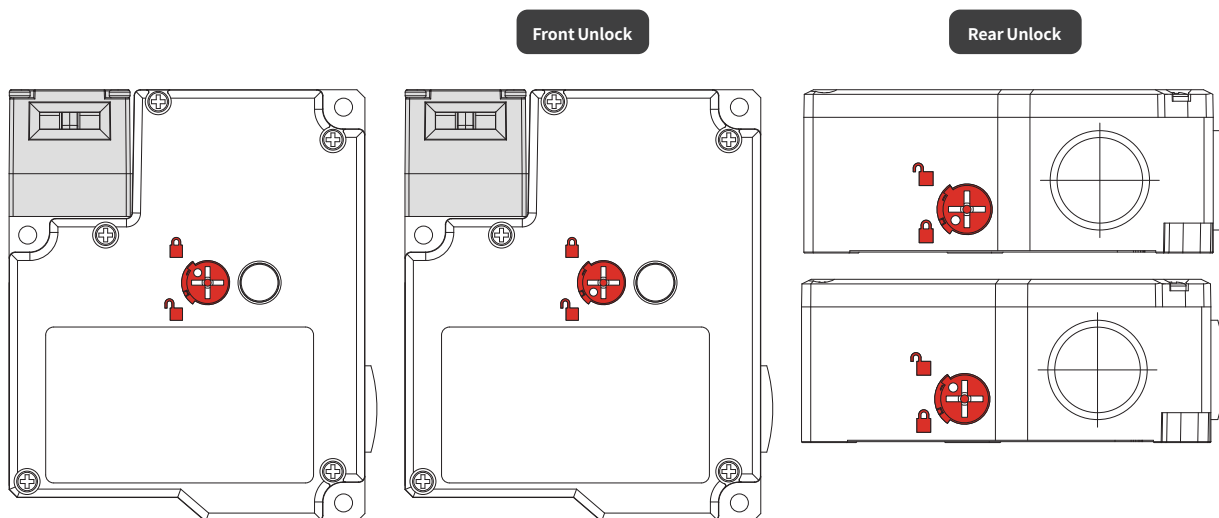
Safety Latch



- ④ The installation of the operating key allows for a tolerance of ± 1 mm based on the center of the operating key insertion hole.



Emergency unlock button



- ❗ In the event of a power outage or emergency, the emergency unlock key can be manually operated.
- ❗ Before operating the emergency unlock key, the hex screw must be lifted; failure to do so may prevent the key from unlocking properly and may damage the emergency unlock key.
- ❗ When rotating the emergency unlock key, it must be turned all the way to the end; otherwise, there is a risk of damaging the switch or preventing normal operation.
- ❗ The torque applied to the emergency unlock key should be kept below 0.2N.m to avoid the risk of damage.
- ❗ After using the emergency unlock key to release the lock and handle the emergency, the key must be reset; failure to do so may affect the normal locking function of the switch and could lead to personal injury or safety accidents
- ❗ Only equipment administrators are allowed to operate the emergency unlock key. Refer to safety note 02.

Service environment

Do not immerse the switch in oil or water, nor use it in locations where it is continuously exposed to oil or water splashes, as this may allow oil or water to enter the switch internals.

IP67 rating specifies the amount of water ingress after immersion in water for a certain period.

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! Warning | Failure to comply with the following may result in death or serious injury.

- ① To protect personal safety and prevent safety accidents, please ensure that multiple safety protection devices are installed when using this product.
Otherwise, it may lead to personal injury or the occurrence of safety accidents.
- ② **Warning: Violating the following may result in death or serious injury.**
Device Administrator Required:
 - a.Ensure a device administrator is appointed who is familiar with the installation, setup, operation, and maintenance of this product.
 - b.The administrator must be knowledgeable about and adhere to the regulations, systems, and laws applicable to the equipment type in their country or region.Operating the equipment by personnel unfamiliar with this product may pose a risk of personal injury or safety accidents.
- ③ After installing the product, conduct debugging to ensure it meets the expected protective requirements before the equipment officially operates.
Failure to meet expected actions may cause personal injury or safety hazards.
- ④ Do not use the product in locations with explosive, flammable, or corrosive gases, areas with intense temperature fluctuations, high humidity that may lead to condensation, areas with intense vibration, or places with solvents such as thinners or detergents.
Otherwise, there is a risk of explosion, fire, or degradation of product performance.
- ⑤ Confirm the use requirements before the product leaves the factory and select the appropriate model based on these requirements.
Arbitrary modification of the product may reduce product performance and potentially damage the switch.
- ⑥ Do not use the safety switch as a door stop element; ensure a mechanical stop element is set to limit the door's position. Do not use the safety switch as a locking device; instead, add mechanical bolts or other methods for door locking.
Otherwise, there may be a risk of the safety switch operating key being displaced due to vibration or other reasons, leading to inaccurate insertion into the switch actuating mechanism, or even damaging the switch.
- ⑦ The locking type safety switch maintains a locked state when powered and is in an unlocked state when power is cut. In case of emergency power failure, the solenoid of the switch will unlock due to the power outage. At this time, the internal parts of the equipment may not have completely stopped due to inertia or other reasons.
Ensure the machine has completely stopped to avoid the risk of personal injury.
- ⑧ The highest temperature of the switch panel in a continuously powered solenoid state is about 25°C higher than the ambient temperature. (When the operating ambient temperature is 40°C, the highest temperature of the switch cover is about 65°C).
Please take precautions to prevent burns or damage to ordinary cables at high temperatures.
- ⑨ If the emergency unlock knob is in the "🔒" position when using the equipment, the switch will not function properly, which may cause some equipment to continue operating when it should stop.
Before using the equipment, make sure the emergency unlock knob is in the "🔓" position. In addition, check the status of the locking and safety circuits.
- ⑩ Before changing the direction of the head, insert the operating key into the head operation hole. Otherwise, it may damage the switch, causing it to lose its protective effect.

! Warning | Violation of the following may result in casualties or product damage

- Before installation, confirm the wiring diagram before wiring.
- Please use within the rated specification range.
- Please correctly distinguish the polarity of the solenoid before wiring. Do not connect it in reverse. Do not apply voltage outside the rated voltage range.
 - When replacing the head, please prevent foreign objects from entering the switch and tighten the fastening screws.
 - When opening the protective cover, prevent debris, liquids, cable residues and other foreign objects from entering the switch.
 - Please use reliable fixing methods such as welding and screws to fix the operating key in a reasonable position to prevent it from falling off or shifting.
 - Do not unlock the operating key (safety door) when pushing or pulling.
 - Do not insert the operating key when the door is open. Otherwise, the machine may move and cause injury.
 - Please use the special operating key configured for our company's safety switch, and take care to keep the spare operating key.
- Do not use metal cable waterproof connectors or metal conduits.

