

Naming rule

Safety Door Switch

SL A S X □ □ - M T 2NO 1NC L - D 3002
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

No	Classification	Letter	Description	Letter	Description	Remark
①	Classification code	SL	Safety Door Switch			
②	Appearance code	A	Small	B	Medium	
		C	Big	D	Flat	
③	Detection head material	M	Metal	S	Plastic	
④	Special categories	Blank	Standard product			
⑤	Area Code	Blank	General Area			
⑥	Industry Code	Blank	General Industry			
⑦	Locking method	E	Solenoid locking	M	Mechanical lock	
⑧	Supply voltage	T	12-24VDC	D	10-30 VDC	
⑨	Interlock contact output	1A	1 NO output			
		3B	3 NC output	2B	2 NC output	
		E	NO/NC	3A	3 NO output	
⑩	Protected Contact Lock Output	1C	1 NO output	R	NO+NC	
		3D	3 NC output	2D	2 NC output	
		F	NO/NC	3C	3 NO output	
		R	NO+NC			
⑪	Unlock Mechanism	Blank	Without rear unlock	L	With rear unlock	
		S	Side emergency unlock	F	Front Emergency Unlock	
⑫	Connection	Blank	2m cable	D	M20 Cable fixing	
		P	PG13.5 cable fixing			
⑬	Customer Code		4-letter/number combo			

Naming rule

Product
Family
Operating
Key



SLB-D

- Ple/Cat 4 Category Safety Level / Type 2 Category Safety Level
- Locking Methods Optional
- Multiple Contact Combinations Available
- Head Material Optional



S01 -003

SLC-D

- Locking Methods Optional
- Multiple Contact Combinations Available
- Head Material Optional
- Locking Force >1300N



S02-001

SLD

- Locking Methods Optional
- Front/Rear Emergency Unlock Optional
- M20/PG13.5 Light Hole Optional
- Compatible with a Variety of Unlock Keys



S03-001

SLAS-D

- Compact Size, Space-Saving
- All Series Contacts Gold-Plated, Suitable for Low Loads
- Compatible with 8 Types of Operating Keys



S04-001

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product Family

Operating Key



Naming rule

Product
Family
Operating
Key

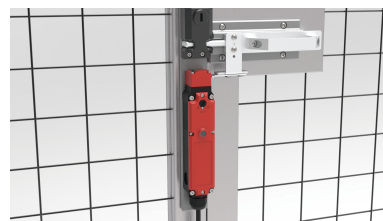
SLB-D Series

Electromagnetic Lock Safety Door Switch



- | 2 sets of gold-plated contacts
- | 6 types of contact combinations
- | Locking force 1300N
- | Indicator light + emergency unlocking
- | Compatible with 11 operating keys
- | Compact design saves installation space

Application



Lock & unlock method	Head material	Cable Exit Type	Switch contact type	Part number
			Door Monitoring Contacts + Locking Monitoring Contacts	
Electromagnetic Locking / Mechanical Release	Resin	M20	1NC + 1NC	SLBS-ET1B1D-D
			N/A + 2NC	SLBS-ET2D-D
			2NC + N/A	SLBS-ET2B-D
			1NC/1NO + N/A	SLBS-ET1E-D
			1NO+ 1NC	SLBS-ET1A1C-D
			N/A + 1NC/1NO	SLBS-ET1F-D
			1NC + 1NC	SLBS-MT1B1D-D
			N/A + 2NC	SLBS-MT2D-D
			2NC + N/A	SLBS-MT2B-D
			1NC/1NO + N/A	SLBS-MT1E-D
			1NO+ 1NC	SLBS-MT1A1C-D
			N/A + 1NC/1NO	SLBS-MT1F-D
Mechanical Locking / Electromagnetic Release	Metal	M20	1NC + 1NC	SLBM-ET1B1D-D
			N/A + 2NC	SLBM-ET2D-D
			2NC + N/A	SLBM-ET2B-D
			1NC/1NO + N/A	SLBM-ET1E-D
			1NO+ 1NC	SLBM-ET1A1C-D
			N/A + 1NC/1NO	SLBM-ET1F-D
			1NC + 1NC	SLBM-MT1B1D-D
			N/A + 2NC	SLBM-MT2D-D
			2NC + N/A	SLBM-MT2B-D
			1NC/1NO + N/A	SLBM-MT1E-D
			1NO+ 1NC	SLBM-MT1A1C-D
			N/A + 1NC/1NO	SLBM-MT1F-D

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family
Operating
Key

www.lanbao-sensor.com

Naming rule

Product
Family

Operating
Key

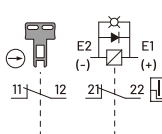
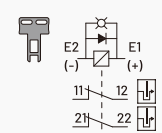
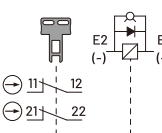
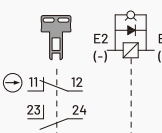
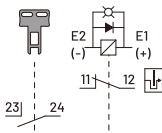
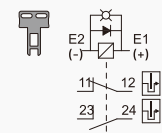


Parameter

SLB-D Series

Part number		SLB-□-□□□□-D	
Housing material		PA66 Flame retardan	
Contact material		Silver alloy gilding	
Indicator	Rated voltage	24VDC	
	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
Rated operating voltage (Ue)		240V	30V
Rated operating current (Ie)		3A	2.3A
Rated limited short circuit current		1000A	
Forced disengagement force		≥60N	
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	

I Electromagnetic lock type

Safety door action status		Status ①	Status ②	Status ③	Status ④	When manually unlocking	
		OFF	OFF	ON	ON	OFF	ON
Electromagnet power supply		ON	OFF	ON	OFF		
Part number and contact structure		Circuit Diagram					
SLB□-ET1B1D-D							
SLB□-ET2D-D							
SLB□-ET2B-D							
SLB□-ET1F-D							
SLB□-ET1A1C-D							
SLB□-ET1F-D							

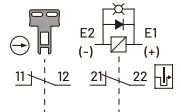
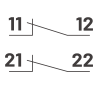
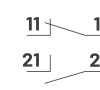
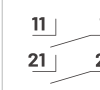
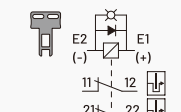
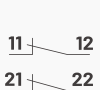
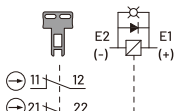
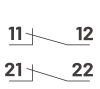
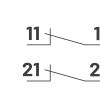
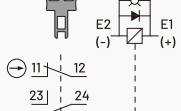
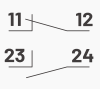
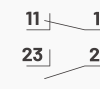
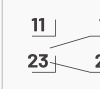
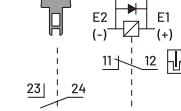
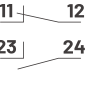
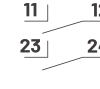
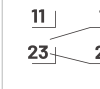
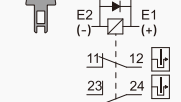
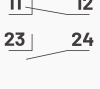
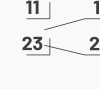
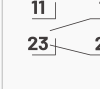
! Note: After manually releasing the lock, the safety door will be in the open state; do not apply voltage to the electromagnet for extended periods.
 Caution: When the safety door is open, do not use the manual unlocking function.



Action circuit/action characteristics

SLB-D Series

I Mechanical lock type

Safety door action status		Status ①	Status ②	Status ③	Status ④	When manually unlocking	
		OFF	OFF	ON	ON	OFF	ON
Electromagnet power supply		ON	OFF	ON	OFF		
Part number and contact structure		Circuit Diagram					
SLB□-MT1B1D-D							
SLB□-MT2D-D							
SLB□-MT2B-D							
SLB□-MT1F-D							
SLB□-MT1A1C-D							
SLB□-MT1F-D							



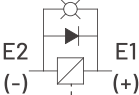
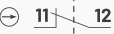
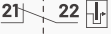
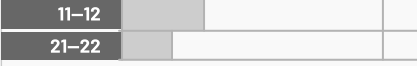
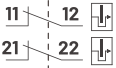
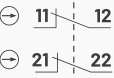
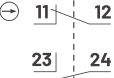
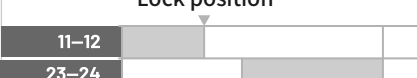
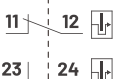
Note: Before wiring and before powering on, as well as in emergencies such as power outages, the lock on the operation key can be manually released.

Naming rule

Product
Family
Operating
Key



Wiring diagram shows the operation key inserted and locked

Part number	Contact type	Wiring diagram		Contact action
	Door monitoring + lock monitoring	Door monitoring	Lock monitoring	 Contact conduction  Contact disconnection
				Travel distance  Operation key fully inserted Operation key fully removed
SLB□-ET1B1D-D SLB□-MT1B1D-D	1NC+1NC			Lock position 
SLB□-ET2D-D SLB□-MT2D-D	N/A+2NC			Lock position 
SLB□-ET2B-D SLB□-MT2B-D	2NC+N/A			Lock position 
SLB□-ET1F-D SLB□-MT1F-D	1NC/1NO+N/A			Lock position 
SLB□-ET1A1C-D SLB□-MT1A1C-D	1NO+ 1NC			Lock position 
SLB□-ET1F-D SLB□-MT1F-D	N/A+1NC/1NO			Lock position 

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

 Product
Family
Operating
Key


SLB-D

SLC-D

SLD

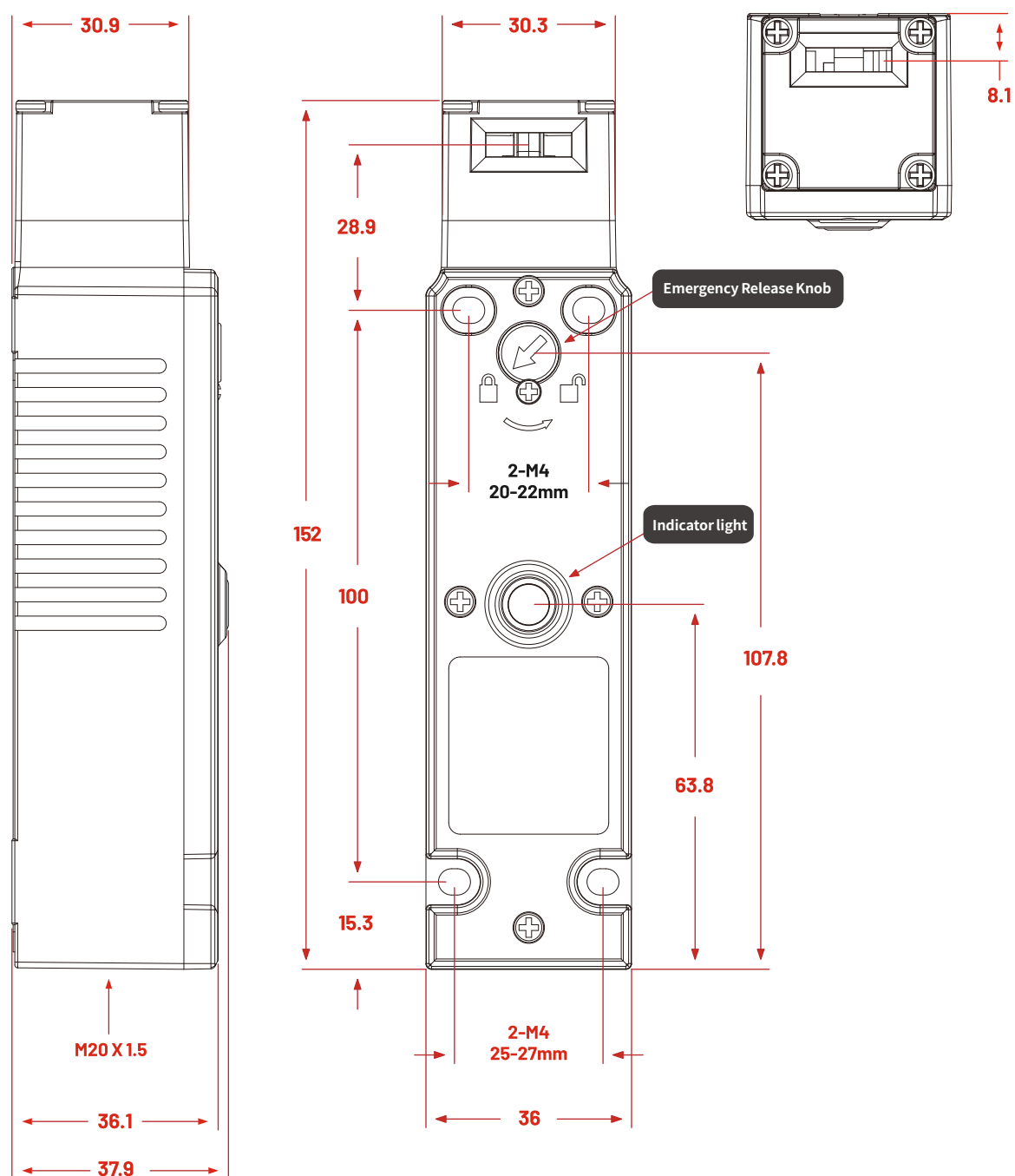
SLAS-D

Naming rule

Product
Family
Operating
Key

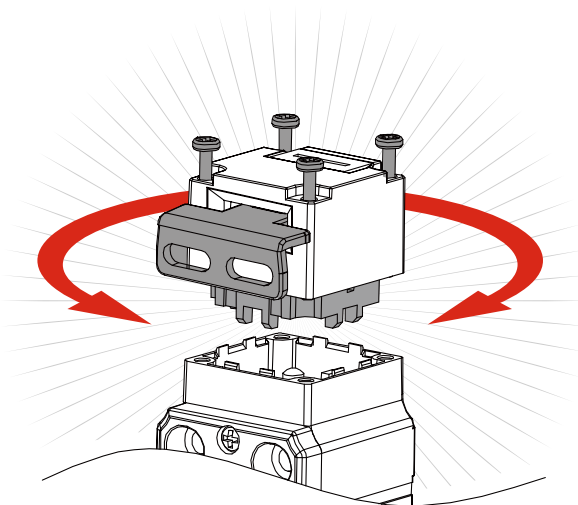
I SLB-D Series Installation Dimensions

Units of Measurement | mm

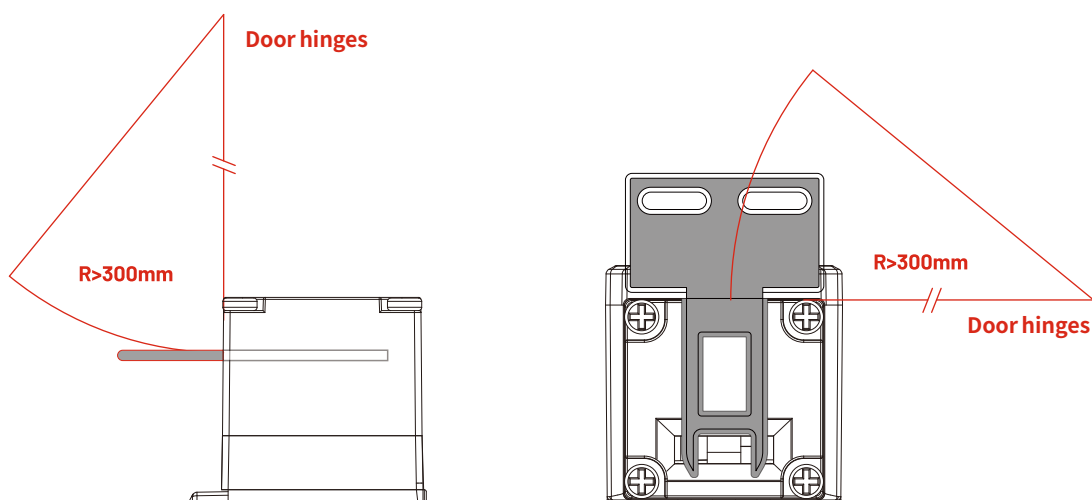


I Installation Precautions

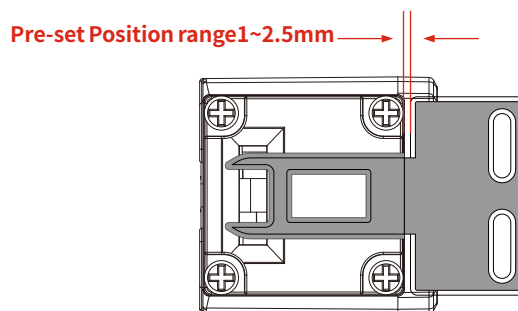
- 1 First, please insert the operating key into the head operation hole. Then, loosen the 4 screws at the top of the head. Finally, rotate the head to select the appropriate operating key hole for installation.



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

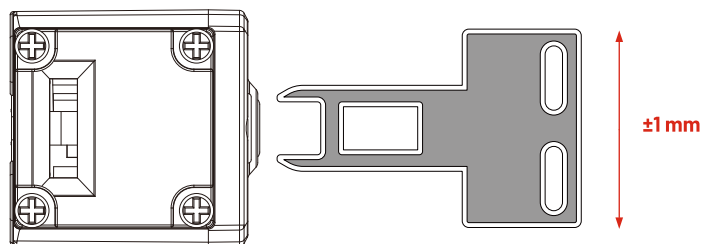


- 3 Please install the switch and operating key within the pre-set position range of 1 to 2.5mm.

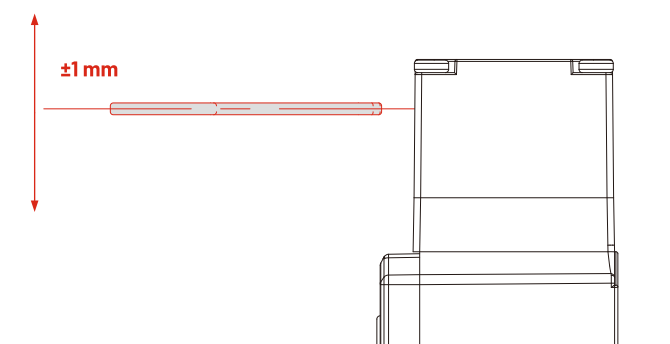


Installation type

SLB-D Series



- 4 The installation of the operating key allows for a tolerance of $\pm 1\text{mm}$ based on the center of the operating key insertion hole.



Emergency unlock button

Naming rule

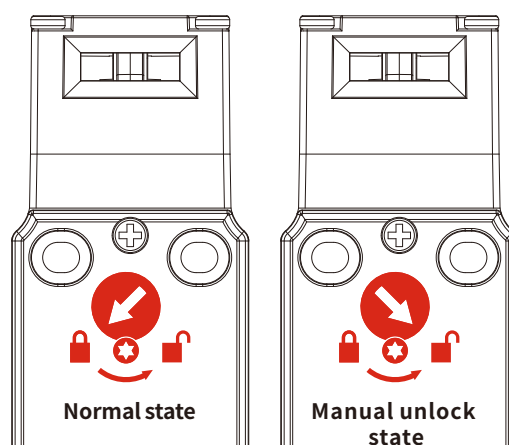
Product
Family
Operating
Key

Unlock button|Slotted type



Unlock screw type

Hexagonal type/Cross type



- ❗ 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.



I 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.

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family
Operating
Key



Naming rule

Product
Family
Operating
Key

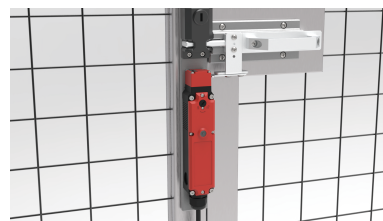
SLC-D Series

Electromagnetic Lock Safety Door Switch



- 4 sets of gold-plated contacts
- 14 types of contact combinations
- Locking force 1300N
- Indicator light + emergency unlocking
- Rear unlock function optional
- Compatible with 11 operating keys

Application



Lock & unlock method	Head material	Cable Exit Type	Rear unlocking device	Switch contact type	Part number
Electromagnetic Locking / Mechanical Release	Metal	M20	Without	Door Monitoring Contacts + Locking Monitoring Contacts	
				1NC/1NO+1NC/1NO	SLCM-ET1E1F-D
				1NC/1NO+2NC	SLCM-ET1E2D-D
				2NC+1NC/1NO	SLCM-ET2B1F-D
				2NC+2NC	SLCM-ET2B2D-D
				1NC/2NO+1NC	SLCM-ET1E1D-D
				3NC+1NC	SLCM-ET3B1D-D
				2NC/1NO+1NC	SLCM-ET2E1D-D
				1NC+3NC	SLCM-ET1B3D-D
				1NC+1NC/2NO	SLCM-ET1B1F-D
				1NC+2NC/1NO	SLCM-ET1B2F-D
				1NO+ 3NC	SLCM-ET1A3D-D
				1NO+2NC/1NO	SLCM-ET1A2F-D
				2NC+2NO	SLCM-ET2B2C-D
				2NO+2NC	SLCM-ET2A2D-D
			With	1NC/1NO+1NC/1NO	SLCM-ET1E1F-D
				1NC/1NO+2NC	SLCM-ET1E2DL-D
				2NC+1NC/1NO	SLCM-ET2B1FL-D
				2NC+2NC	SLCM-ET2B2DL-D
				1NC/2NO+1NC	SLCM-ET1E1DL-D
				3NC+1NC	SLCM-ET3B1DL-D
				2NC/1NO+1NC	SLCM-ET2E1DL-D
				1NC+3NC	SLCM-ET1B3DL-D
				1NC+1NC/2NO	SLCM-ET1B1FL-D
				1NC+2NC/1NO	SLCM-ET1B2FL-D
				1NO+3NC	SLCM-ET1A3DL-D
				1NO+2NC/1NO	SLCM-ET1A2FL-D
				2NC+2NO	SLCM-ET2B2CL-D
				2NO+2NC	SLCM-ET2A2DL-D

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family
Operating
Key

www.lanbao-sensor.com

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family
Operating
Key



Selection List

SLC-D Series

Lock & unlock method	Head material	Cable Exit Type	Rear unlocking device	Switch contact type	Part number
Electromagnetic Locking / Mechanical Release	Resin	M20	without	Door Monitoring Contacts + Locking Monitoring Contacts	
				1NC/1NO+1NC/1NO	SLCS-ET1E1F-D
				1NC/1NO+2NC	SLCS-ET1E2D-D
				2NC+1NC/1NO	SLCS-ET2B1F-D
				2NC+2NC	SLCS-ET2B2D-D
				1NC/2NO+1NC	SLCS-ET1E1D-D
				3NC+1NC	SLCS-ET3B1D-D
				2NC/1NO+1NC	SLCS-ET2E1D-D
				1NC+3NC	SLCS-ET1B3D-D
				1NC+1NC/2NO	SLCS-ET1B1F-D
				1NC+2NC/1NO	SLCS-ET1B2F-D
				1NO+ 3NC	SLCS-ET1A3D-D
				1NO+2NC/1NO	SLCS-ET1A2F-D
				2NC+2NO	SLCS-ET2B2C-D
				2NO+2NC	SLCS-ET2A2D-D
			with	1NC/1NO+1NC/1NO	SLCS-ET1E1F-D
				1NC/1NO+2NC	SLCS-ET1E2DL-D
				2NC+1NC/1NO	SLCS-ET2B1FL-D
				2NC+2NC	SLCS-ET2B2DL-D
				1NC/2NO+1NC	SLCS-ET1E1DL-D
				3NC+1NC	SLCS-ET3B1DL-D
				2NC/1NO+1NC	SLCS-ET2E1DL-D
				1NC+3NC	SLCS-ET1B3DL-D
				1NC+1NC/2NO	SLCS-ET1B1FL-D
				1NC+2NC/1NO	SLCS-ET1B2FL-D
				1NO+3NC	SLCS-ET1A3DL-D
				1NO+2NC/1NO	SLCS-ET1A2FL-D
				2NC+2NO	SLCS-ET2B2CL-D
				2NO+2NC	SLCS-ET2A2DL-D

Lock & unlock method	Head material	Cable Exit Type	Rear unlocking device	Switch contact type	Part number
				Door Monitoring Contacts + Locking Monitoring Contacts	
Mechanical Locking / Electromagnetic Release	Metal	M20	without	1NC/1NO+1NC/1NO	SLCM-MT1E1F-D
				1NC/1NO+2NC	SLCM-MT1E2D-D
				2NC+1NC/1NO	SLCM-MT2B1F-D
				2NC+2NC	SLCM-MT2B2D-D
				1NC/2NO+1NC	SLCM-MT1E1D-D
				3NC+1NC	SLCM-MT3B1D-D
				2NC/1NO+1NC	SLCM-MT2E1D-D
				1NC+3NC	SLCM-MT1B3D-D
				1NC+1NC/2NO	SLCM-MT1B1F-D
				1NC+2NC/1NO	SLCM-MT1B2F-D
				1NO+ 3NC	SLCM-MT1A3D-D
				1NO+2NC/1NO	SLCM-MT1A2F-D
				2NC+2NO	SLCM-MT2B2C-D
				2NO+2NC	SLCM-MT2A2D-D
			with	1NC/1NO+1NC/1NO	SLCM-MT1E1F-D
				1NC/1NO+2NC	SLCM-MT1E2DL-D
				2NC+1NC/1NO	SLCM-MT2B1FL-D
				2NC+2NC	SLCM-MT2B2DL-D
				1NC/2NO+1NC	SLCM-MT1E1DL-D
				3NC+1NC	SLCM-MT3B1DL-D
				2NC/1NO+1NC	SLCM-MT2E1DL-D
				1NC+3NC	SLCM-MT1B3DL-D
				1NC+1NC/2NO	SLCM-MT1B1FL-D
				1NC+2NC/1NO	SLCM-MT1B2FL-D
				1NO+3NC	SLCM-MT1A3DL-D
				1NO+2NC/1NO	SLCM-MT1A2FL-D
				2NC+2NO	SLCM-MT2B2CL-D
				2NO+2NC	SLCM-MT2A2DL-D

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family
Operating
Key

www.lanbao-sensor.com

Selection List

SLC-D Series

Safety Door Switch

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family
Operating
Key



Lock & unlock method	Head material	Cable Exit Type	Rear unlocking device	Switch contact type	Part number
Mechanical Locking / Electromagnetic Release	Resin	M20	without	Door Monitoring Contacts + Locking Monitoring Contacts	
				1NC/1NO+1NC/1NO	SLCS-MT1E1F-D
				1NC/1NO+2NC	SLCS-MT1E2D-D
				2NC+1NC/1NO	SLCS-MT2B1F-D
				2NC+2NC	SLCS-MT2B2D-D
				1NC/2NO+1NC	SLCS-MT1E1D-D
				3NC+1NC	SLCS-MT3B1D-D
				2NC/1NO+1NC	SLCS-MT2E1D-D
				1NC+3NC	SLCS-MT1B3D-D
				1NC+1NC/2NO	SLCS-MT1B1F-D
				1NC+2NC/1NO	SLCS-MT1B2F-D
				1NO+ 3NC	SLCS-MT1A3D-D
				1NO+2NC/1NO	SLCS-MT1A2F-D
				2NC+2NO	SLCS-MT2B2C-D
				2NO+2NC	SLCS-MT2A2D-D
			with	1NC/1NO+1NC/1NO	SLCS-MT1E1F-D
				1NC/1NO+2NC	SLCS-MT1E2DL-D
				2NC+1NC/1NO	SLCS-MT2B1FL-D
				2NC+2NC	SLCS-MT2B2DL-D
				1NC/2NO+1NC	SLCS-MT1E1DL-D
				3NC+1NC	SLCS-MT3B1DL-D
				2NC/1NO+1NC	SLCS-MT2E1DL-D
				1NC+3NC	SLCS-MT1B3DL-D
				1NC+1NC/2NO	SLCS-MT1B1FL-D
				1NC+2NC/1NO	SLCS-MT1B2FL-D
				1NO+3NC	SLCS-MT1A3DL-D
				1NO+2NC/1NO	SLCS-MT1A2FL-D
				2NC+2NO	SLCS-MT2B2CL-D
				2NO+2NC	SLCS-MT2A2DL-D

I SLC-D Series

Part number		SLC□-□□□□□□□-D	
Housing material		PA66 Flame retardant	
Contact material		Silver alloy gilding	
Indicator	Rated voltage	24VDC	
	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	
Rated operating voltage (Ue)	240V	30V	
Rated operating current (Ie)	3A	2.3A	
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	

Safety Door Switch

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

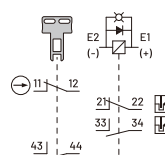
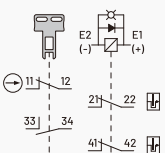
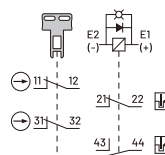
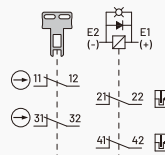
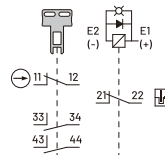
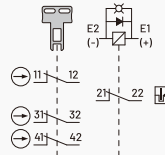
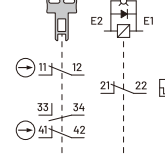
Product
Family
Operating
Key



Action circuit/action characteristics

SLC-D Series

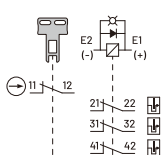
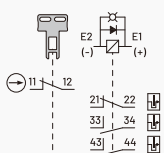
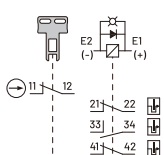
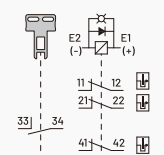
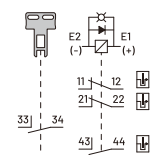
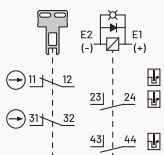
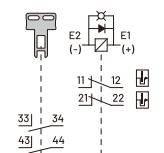
I Electromagnetic lock type

Safety door action status		Status ①	Status ②	Status ③	Status④	When manually unlocking	
		OFF	OFF	ON	ON	OFF	ON
Electromagnet power supply		ON	OFF	ON	OFF	 或 	
Part number and contact structure		Circuit Diagram					
SLC□-ET1E1F□-D							
							
SLC□-ET1F2D□-D							
							
SLC□-ET2B1F□-D							
							
SLC□-ET2B2D□-D							
							
SLC□-ET1E1F□-D							
							
SLC□-ET3B1D□-D							
							
SLC□-ET2E1D□-D							
							

 Note: After manually releasing the lock, the safety door will be in the open state; do not apply voltage to the electromagnet for extended periods.
Caution: When the safety door is open, do not use the manual unlocking function.



I Electromagnetic lock type

Safety door action status		Status ①	Status ②	Status ③	Status ④	When manually unlocking	
		OFF	OFF	ON	ON	OFF	ON
Electromagnet power supply		ON	OFF	ON	OFF	 或 	
Part number and contact structure		Circuit Diagram					
SLC□-ET1B3D□-D							
							
							
							
							
SLC□-ET1B1F□-D							
							
							
							
							
SLC□-ET1B2F□-D							
							
							
							
							
SLC□-ET1A3D□-D							
							
							
							
							
SLC□-ET1A2F□-D							
							
							
							
							
SLC□-ET2B2C□-D							
							
							
							
							
SLC□-ET2A2D□-D							
							
							
							
							

 Note: Before wiring and before powering on, as well as in emergencies such as power outages, the lock on the operation key can be manually released.

SLB-D

SLC-D

SLDD

SLAS-D

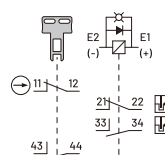
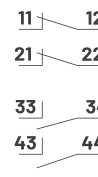
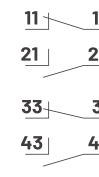
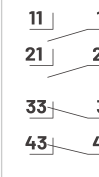
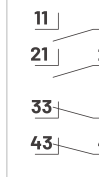
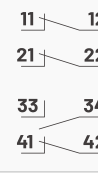
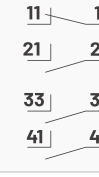
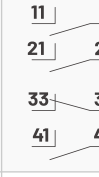
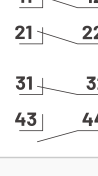
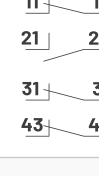
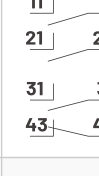
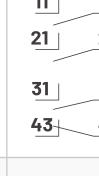
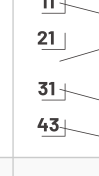
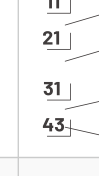
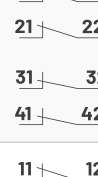
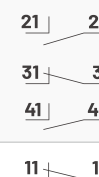
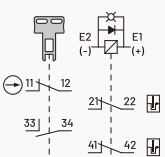
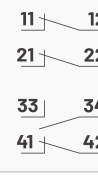
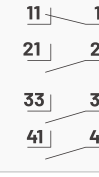
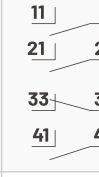
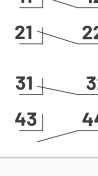
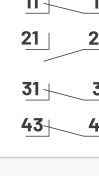
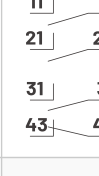
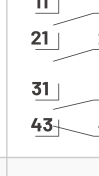
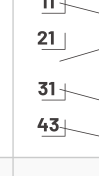
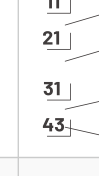
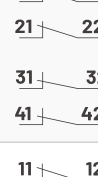
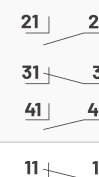
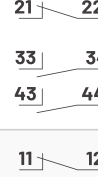
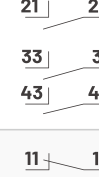
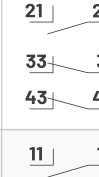
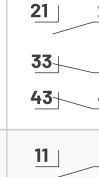
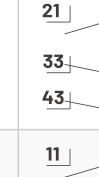
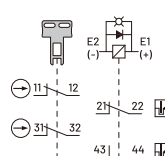
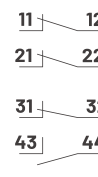
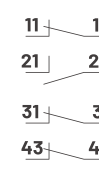
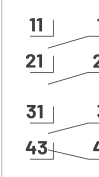
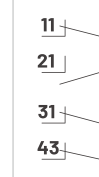
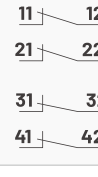
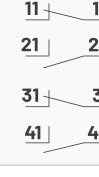
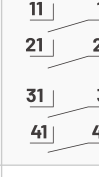
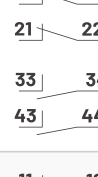
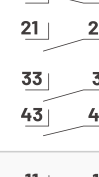
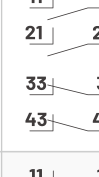
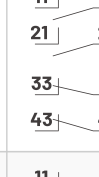
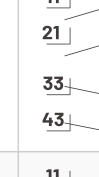
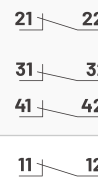
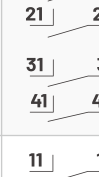
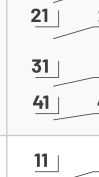
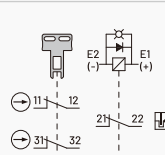
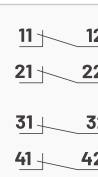
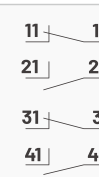
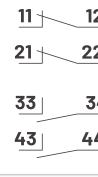
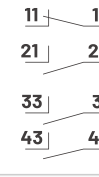
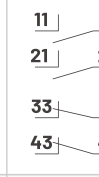
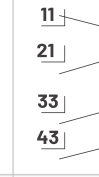
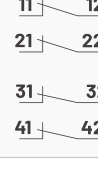
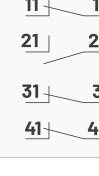
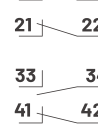
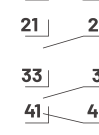
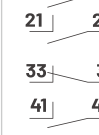
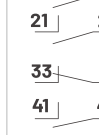
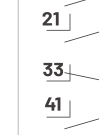
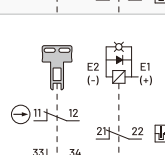
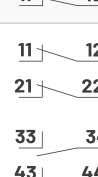
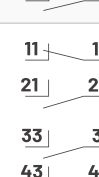
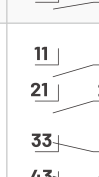
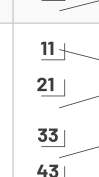
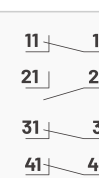
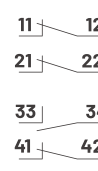
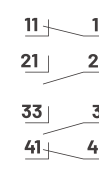
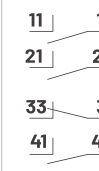
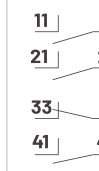
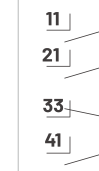
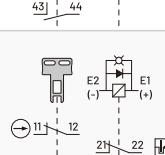
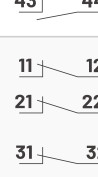
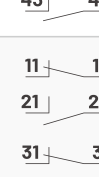
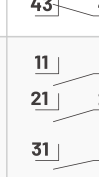
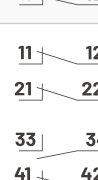
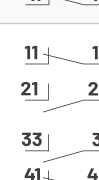
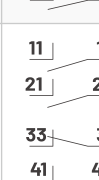
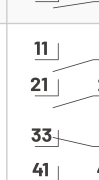
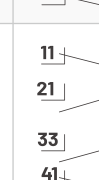
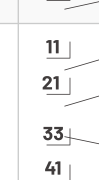
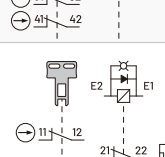
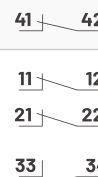
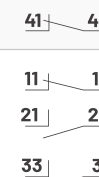
Naming rule

Product
Family
Operating
Key



www.lanbao-
sensor.com

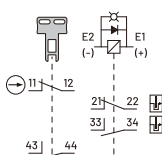
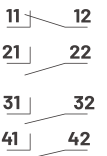
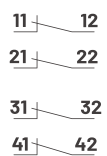
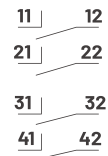
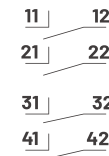
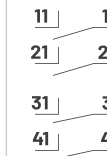
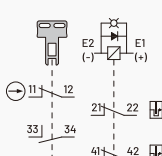
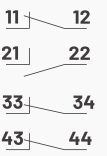
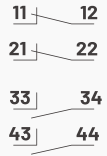
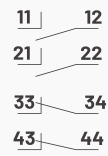
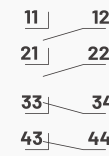
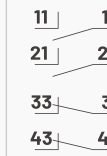
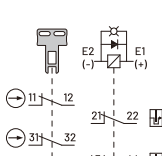
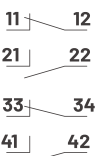
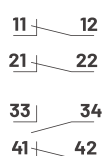
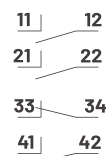
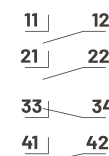
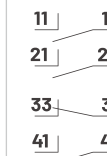
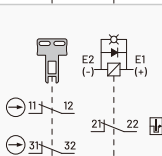
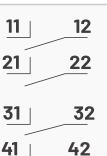
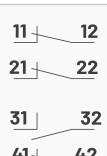
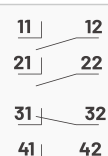
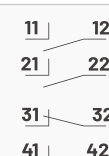
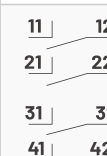
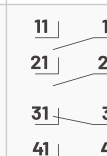
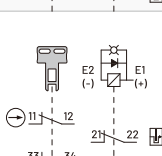
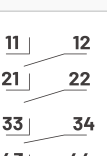
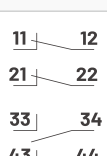
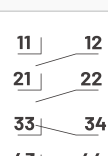
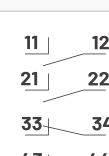
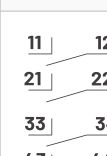
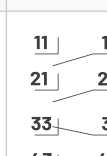
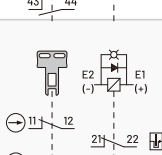
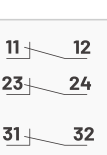
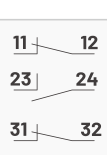
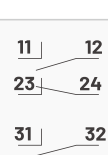
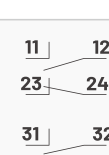
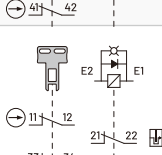
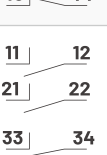
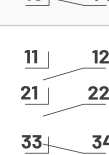
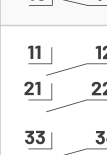
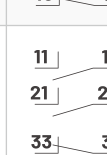
I Mechanical lock type

Safety door action status		Status ①	Status ②	Status ③	Status ④	When manually unlocking	
		OFF	OFF	ON	ON	OFF	ON
Electromagnet power supply		ON	OFF	ON	OFF	 或 	
Part number and contact structure		Circuit Diagram					
SLC□-MT1E1F□-D							
							
							
							
SLC□-MT1E2D□-D							
							
							
							
SLC□-MT2B1F□-D							
							
							
							
SLC□-MT2B2D□-D							
							
							
							
SLC□-MT1E1D□-D							
							
							
SLC□-MT3B1D□-D							
							
SLC□-MT2E1D□-D							
							

 Note: Before wiring and before powering on, as well as in emergencies such as power outages, the lock on the operation key can be manually released.



I Mechanical lock type

Safety door action status		Status ①	Status ②	Status ③	Status ④	When manually unlocking	
		OFF	关闭	打开	打开	关闭	打开
Electromagnet power supply		ON	OFF	ON	OFF	 或 	
Part number and contact structure		Circuit Diagram					
SLC□-MT1B3D□-D							
SLC□-MT1B1F□-D							
SLC□-MT1B2F□-D							
SLC□-MT1A3D□-D							
SLC□-MT1A2F□-D							
SLC□-MT2B2C□-D							
SLC□-MT2A2D□-D							

 Note: Before wiring and before powering on, as well as in emergencies such as power outages, the lock on the operation key can be manually released.

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family
Operating
Key



www.lanbao-
sensor.com

Contact composition/action characteristics

SLC-D Series

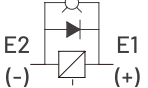
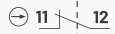
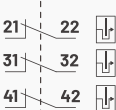
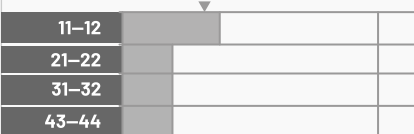
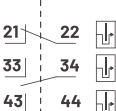
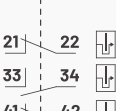
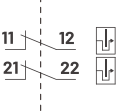
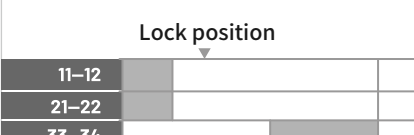
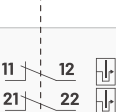
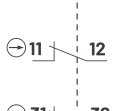
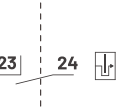
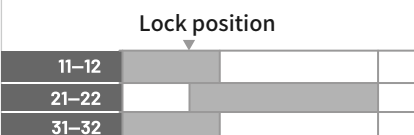
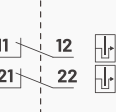
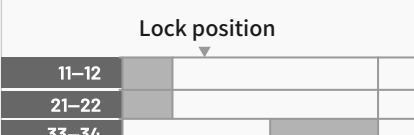
I Wiring diagram shows the operation key inserted and locked

Part number	Contact type	Wiring diagram		Contact action	
	Door monitoring + lock monitoring	Door monitoring	Lock monitoring	Contact conduction	Contact disconnection
SLC□-ET1E1F□-D SLC□-MT1E1F□-D	1NC/INO + 1NC/1NO				
SLC□-ET1E2D□-D SLC□-MT1E2D□-D	1NC/INO + 2NC				
SLC□-ET2B1F□-D SLC□-MT2B1F□-D	2NC+1NC/1NO				
SLC□-ET2B2D□-D SLC□-MT2B2D□-D	2NC+2NC				
SLC□-ET1E1F□-D SLC□-MT1E1D□-D	1NC/2NO+1NC				
SLC□-ET3B1D□-D SLC□-MT3B1D□-D	3NC+1NC				
SLC□-ET2E1D□-D SLC□-MT2E1D□-D	2NC/INO + 1NC				

Naming rule

Product
Family
Operating
Key

Wiring diagram shows the operation key inserted and locked

Part number	Contact type	Wiring diagram		Contact action
	Door monitoring + lock monitoring	Door monitoring	Lock monitoring	 Contact conduction  Contact disconnection
				Travel distance  Operation key fully inserted Operation key fully removed
SLC□-ET1B3D□-D SLC□-MT1B3D□-D	1NC + 3NC			Lock position 
SLC□-ET1B1F□-D SLC□-MT1B1F□-D				Lock position 
SLC□-ET1B2F□-D SLC□-MT1B2F□-D	1NC + 2NC/1NO			Lock position 
SLC□-ET1A3D□-D SLC□-MT1A3D□-D	1NO + 3NC			Lock position 
SLC□-ET1A2F□-D SLC□-MT1A2F□-D	1NO + 2NC/1NO			Lock position 
SLC□-ET2B2C□-D SLC□-MT2B2C□-D	2NC+2NO			Lock position 
SLC□-ET2A2D□-D SLC□-MT2A2D□-D	2NO-2NC			Lock position 

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

 Product
Family
Operating
Key

www.lanbao-sensor.com

SLB-D

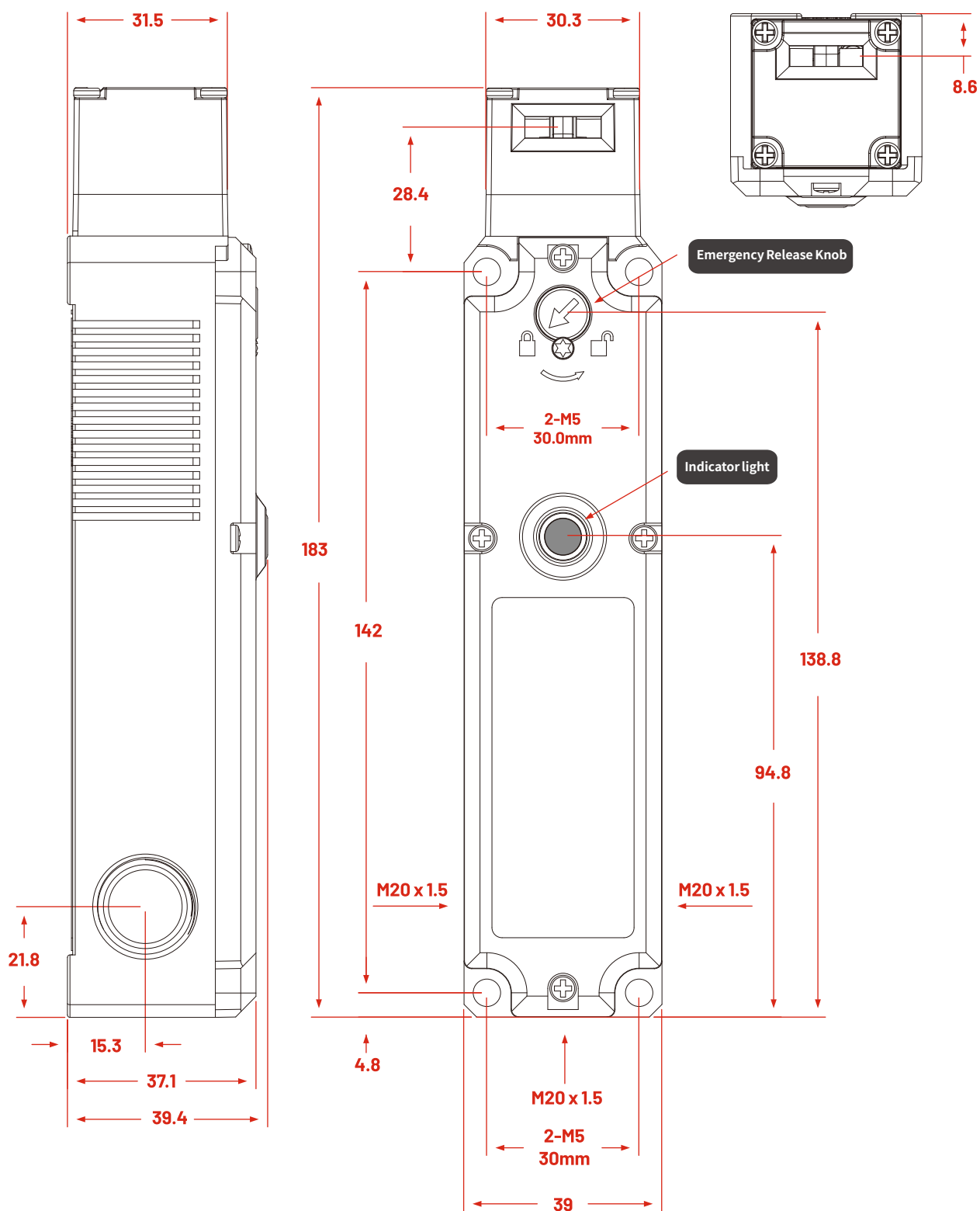
SLC-D

SLD

SLAS-D

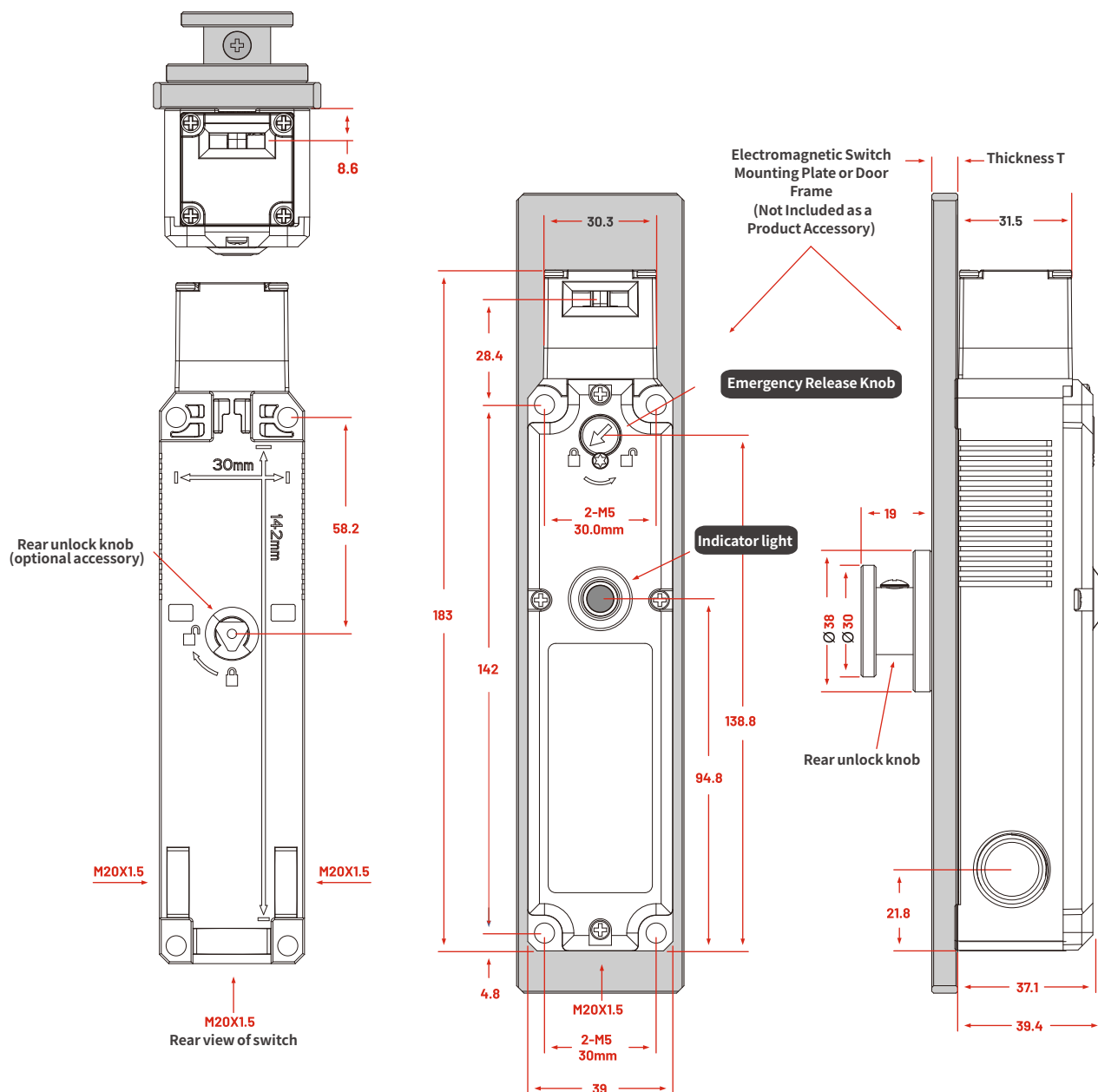
Naming rule

Product
Family
Operating
Key



SLC-D Series Installation Dimensions-Standard type

Units of Measurement | mm





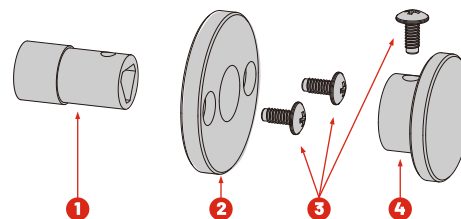
Installation type

SLC-D Series

I Rear Unlock Accessory Kit

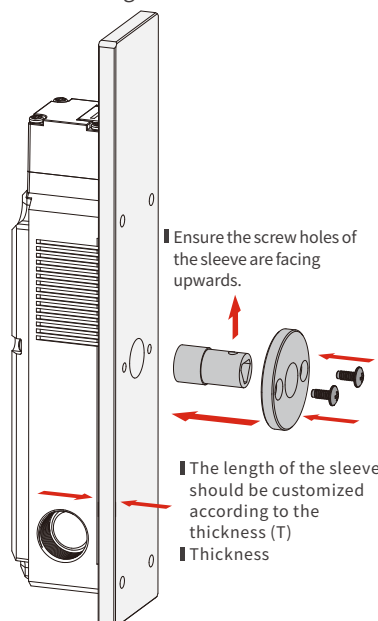
Rear unlocking accessories package:

- ① Sleeve (Custom Length Based on Switch Mounting Plate or Door Frame Thickness)
- ② Sleeve Retainer
- ③ M4 Machine Screws (3 Pieces)
- ④ Metal Knob



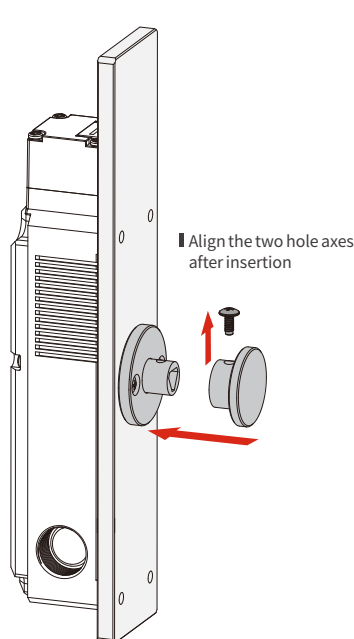
1

- ① Mount the electromagnetic lock switch onto the switch mounting plate or door frame.
- ② As shown in the diagram, thread the sleeve through the switch mounting plate or door frame and onto the rear unlocking knob of the electromagnetic lock switch.
- ③ Secure the sleeve retainer onto the switch mounting plate or door frame using M4 machine screws.



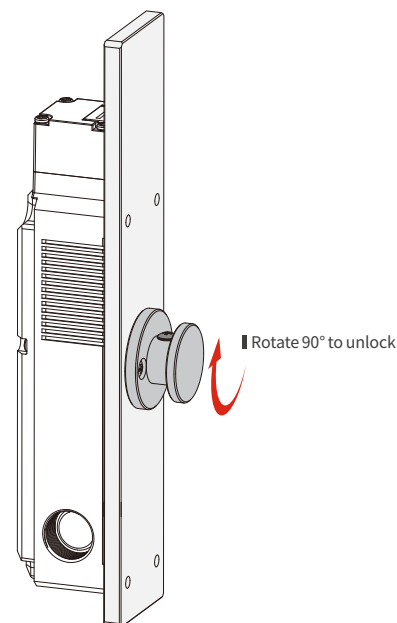
2

- ① Insert the metal knob into the sleeve and align the axis of the two holes
- ② Fasten with M4 screws.

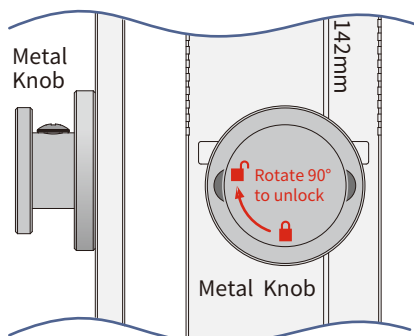


3

- ① Installation completed as shown
- ② The metal knob can only be turned 90 degrees clockwise



I Instructions for use of rear unlocking type



Guidelines for use of rear unlocking knob

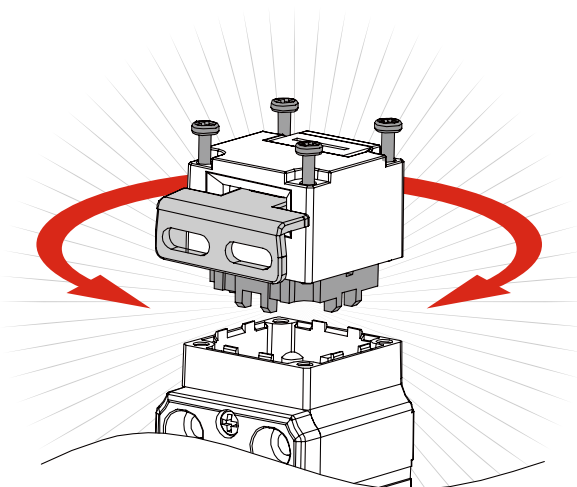
- The rear unlocking knob is a safety measure for emergency evacuation when the operator is accidentally trapped in the safety fence (dangerous area).
- Turn the metal knob 90° clockwise to release the lock and the door can be opened.
- If you need to restore the locked state, please turn the metal knob 90° counterclockwise
- When the metal knob is in the unlocked position, the door cannot be locked even if it is closed.

Cautionary Notes

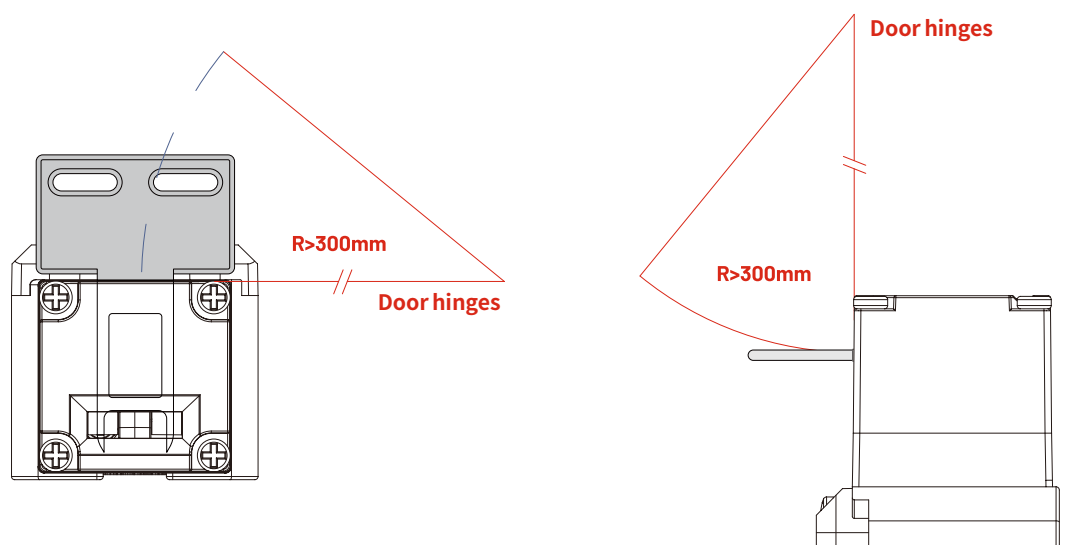
- Ensure that the rear unlocking knob is installed in a location within the safety fence (hazardous area) that is accessible for operation.
- Do not use tools or excessive force to operate the rear unlocking knob. Avoid applying force in directions other than the intended operating direction or beyond the rotation angle range to prevent damage to the knob components, which could result in operational failure.

I Installation Precautions

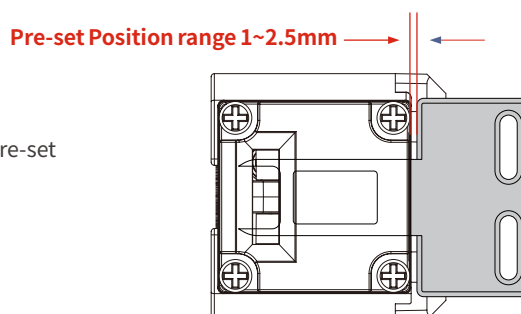
❶ First, please insert the operating key into the head operation hole. Then, loosen the 4 screws at the top of the head. Finally, rotate the head to select the appropriate operating key hole for installation.



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



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



SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family
Operating
Key



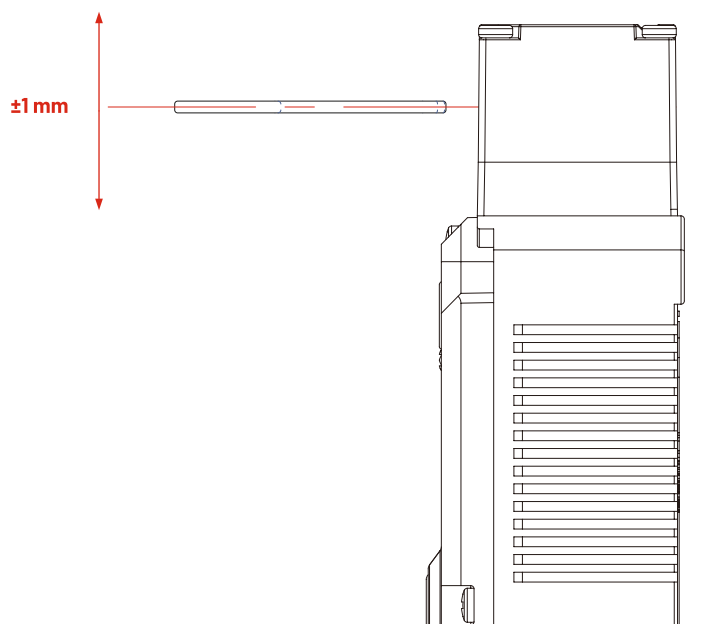
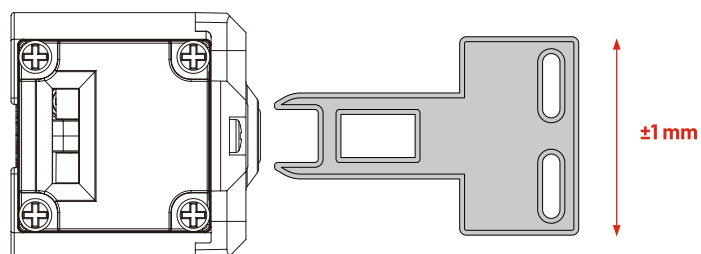
www.lanbao-
sensor.com

Naming rule

Product
Family
Operating
Key

Installation type

SLC-D Series



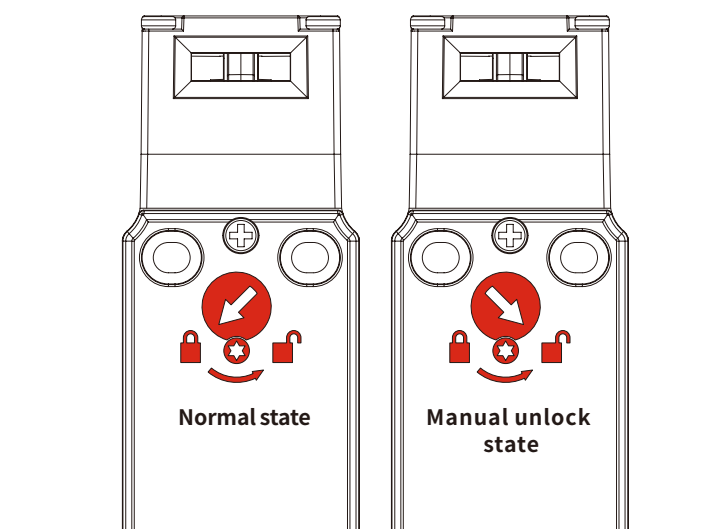
- ④ The installation of the operating key allows for a tolerance of $\pm 1 \text{ mm}$ based on the center of the operating key insertion hole.

I Emergency unlock button

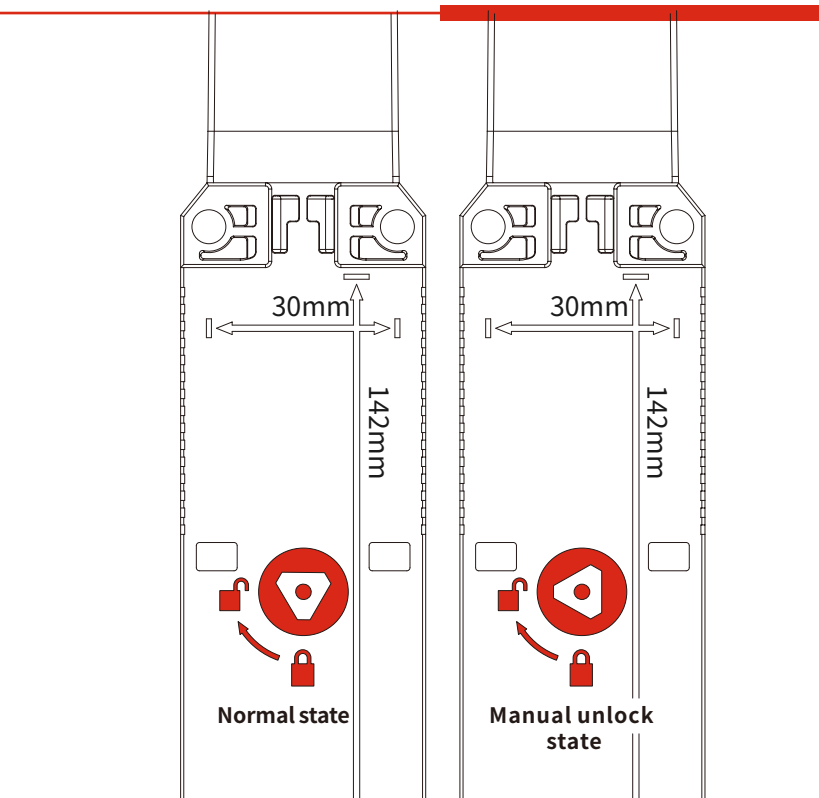
Front Unlock 

Unlock button | Slotted type 

Unlock screw type
Hexagonal type/Cross type  



Rear Unlock 
Unlock with dedicated
knob and guide tube



- ❗ 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.

I 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.

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family
Operating
Key



www.lanbao-
sensor.com

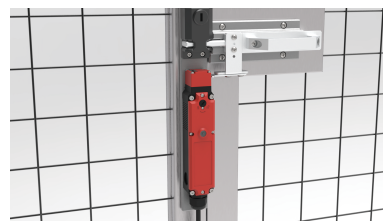
SLD Series

Electromagnetic Lock Safety Door Switch



- 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



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/1NO	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

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family
Operating
Key

www.lanbao-sensor.com

Selection List

SLD Series

Safety Door Switch

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family
Operating
Key



Lock & unlock method	Head material	Position	Cable Exit Type	Switch contact type	Part number
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/INO+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

I 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		

Safety Door Switch

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family
Operating
Key

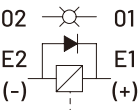
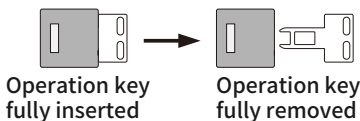
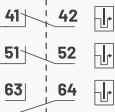
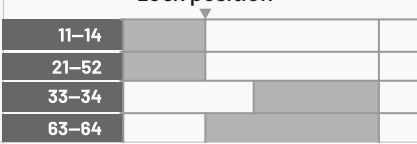
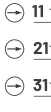
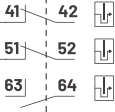
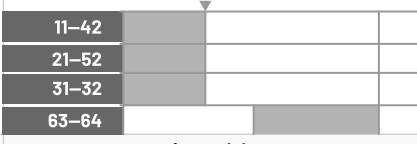
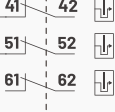
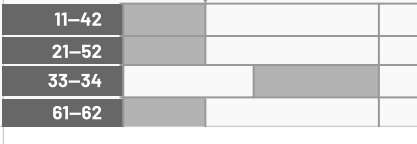
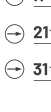
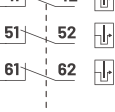
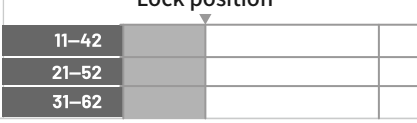


www.lanbao-sensor.com

Contact composition/action characteristics

SLD Series

I Wiring diagram shows the operation key inserted and locked

Part number	Contact typ	Wiring diagram		Contact action
	Door monitoring + lock monitoring	Door monitoring	Lock monitoring	 Contact conduction  Contact disconnection
				 Operation key fully inserted Operation key fully removed
SLD □-□ T2E2F □-□	2NC/1NO+2NC/1NO			Lock position 
SLD □-□ T3B2F □-□	3NC + 2NC/1NO			Lock position 
SLD □-□ T2E3D □-□	2NC/1NO + 3NC			Lock position 
SLD □-□ T3B3D □-□	3NC + 3NC			Lock position 

Safety Door Switch

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family
Operating
Key



SLB-D

SLC-D

SLD

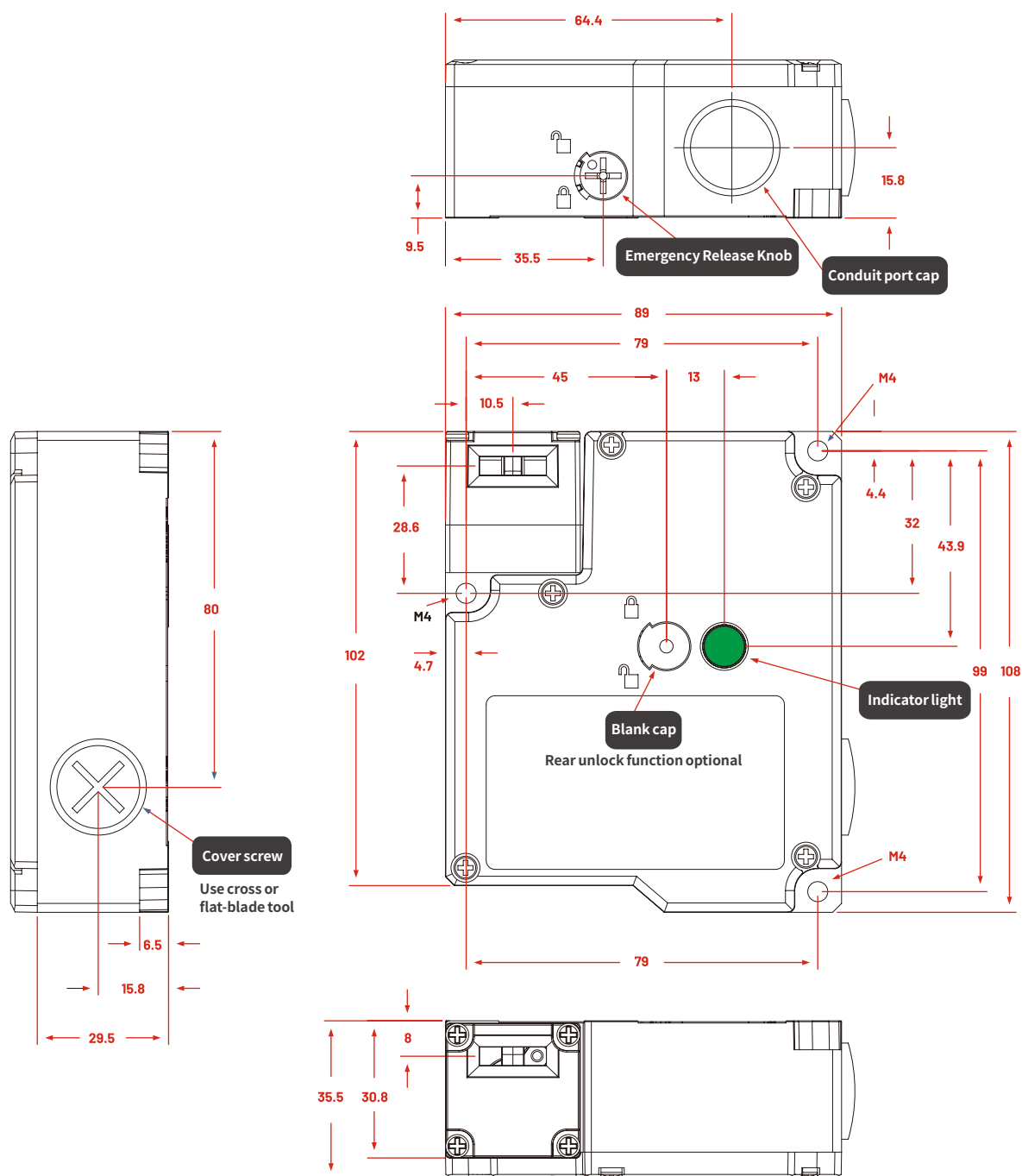
SLAS-D

Naming rule

Product
Family
Operating
Key

SLD Series Installation Dimensions-Standard type

Units of Measurement | mm

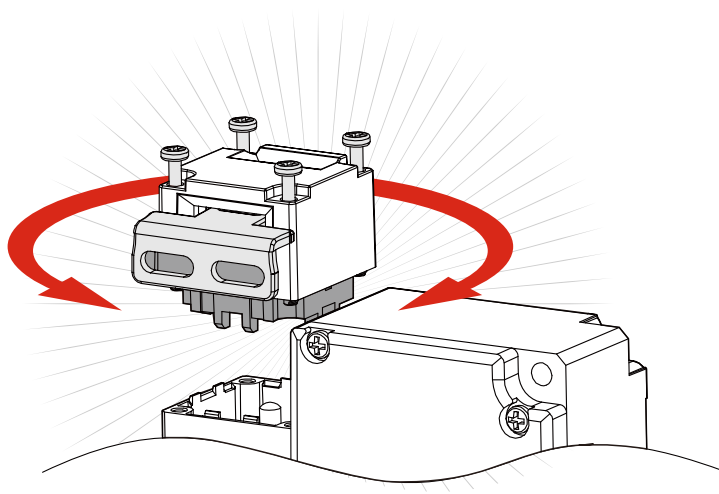


Installation type

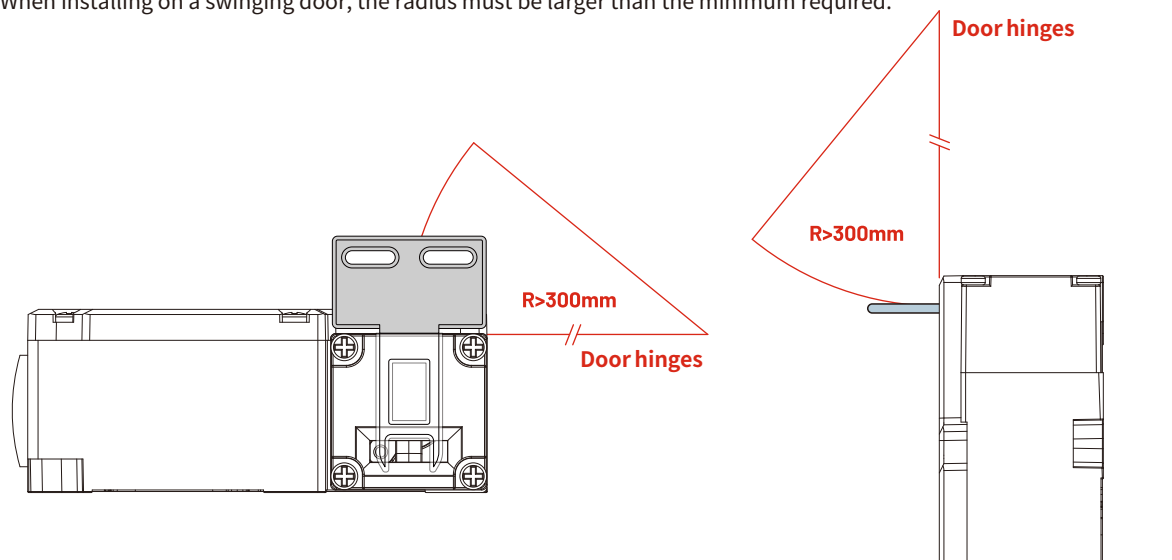
SLD Series

I Installation Precautions

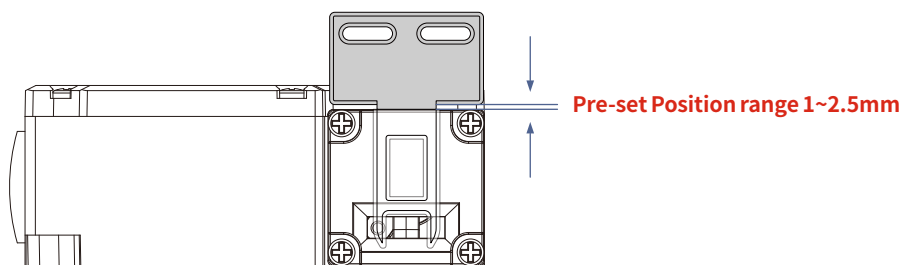
① First, please insert the operating key into the head operation hole. Then, loosen the 4 screws at the top of the head. Finally, rotate the head to select the appropriate operating key hole for installation.



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.

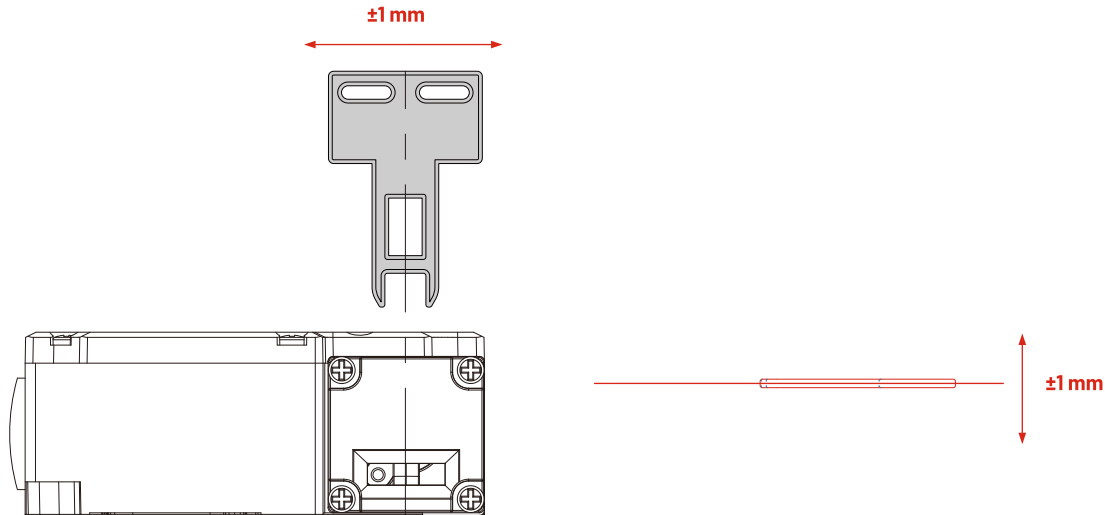


Naming rule

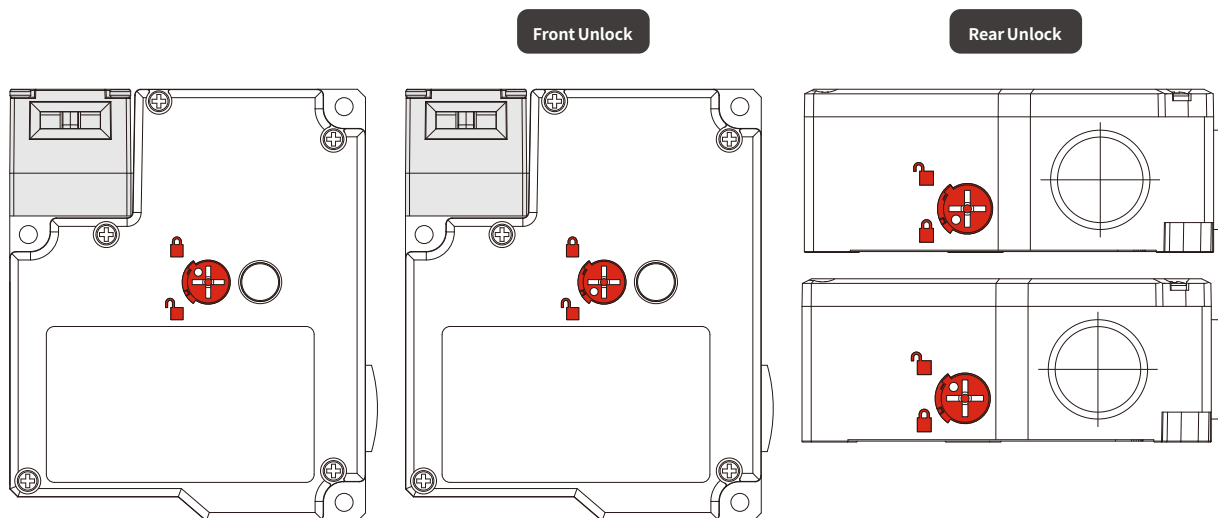
Product
Family
Operating
Key



- ④ The installation of the operating key allows for a tolerance of $\pm 1\text{mm}$ 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.

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family
Operating
Key



www.lanbao-
sensor.com

Naming rule

Product
Family
Operating
Key

Installation type

SLD Series



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.



SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family

Operating
Key



Memorandum

SLAS-D Series

Electromagnetic Lock Safety Door Switch

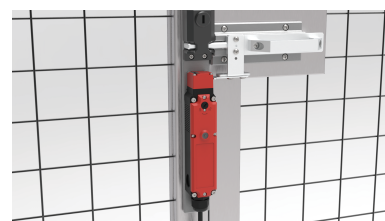
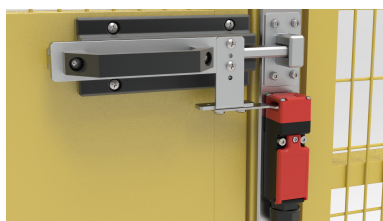


- Full range of gold-plated contacts, suitable for standard loads and micro loads
- Up to 3 sets of contact structures, optional 2NC+1NO or 3NC
- NC contacts are direct disconnection contacts
- 8 ways to insert the operating key can be adjusted to meet different installation positions
- Universal use of operating keys and electromagnetic lock safety door switches
- Original factory comes with PG13.5 cable connector

Application

Naming rule

Product
Family
Operating
Key



SLD Series

Part number	SLAS-MT□□--D
Applicable standard	IEC/EN60947-5-1/GB14048.5-2017
Protection degree	IP65/IP67(EN60947-5-1Except key operation hole)
Service life	Mechanical:≥1 million times / Electric:≥300,000 times
Rated insulation voltage (Ui)	400V
Rated impulse withstand voltage (Uimp)	4KV
Rated open thermal current (Ith)	8A
Usage category	AC-15
Rated operating voltage (Ue)	AC400V
Rated operating current (Ie)	2A
Rated limited short circuit current	1000 A
Forced disengagement force	≥60 N
Forced disengagement distance	≥10mm
operating frequency	Max. 20 operations/min
Ambient temperature	-20°C-60°C No icing
Ambient humidity	≤85 %RH

1.The above values are initial values.

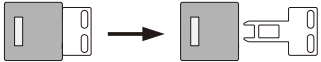
2.The switch contacts are designed for both standard and micro-load applications, but contacts intended for a specific load must not be used to connect another load with a smaller capacity.



Contact composition/action characteristics

SLAS-D Series

Wiring diagram shows the operation key inserted and locked

Part number	Contact type	Wiring diagram	Contact action
			Travel distance  Operation key fully inserted Operation key fully removed
SLAS-MT1R-D	1NC+1NC	⊖ 11 12 23 24	11-12 23-24
SLAS-MT2B-D	2NC	⊖ 11 12 ⊖ 21 22	11-12 21-22
SLAS-MT2R-D	2NC+1NC	⊖ 11 12 ⊖ 21 22 33 34	11-12 21-22 33-34
SLAS-MT3C-D	3NC	⊖ 11 12 ⊖ 21 22 ⊖ 31 32	11-12 21-22 31-32

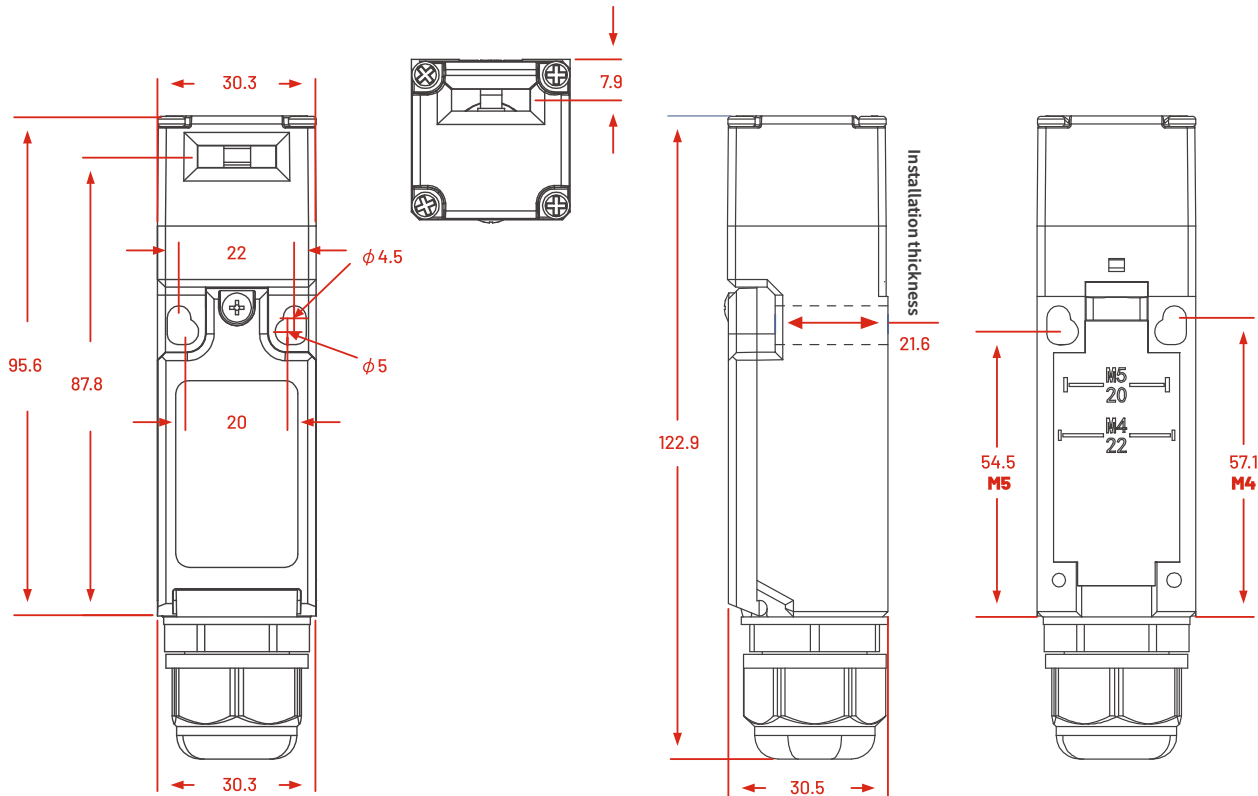
Naming rule

Product
Family
Operating
Key



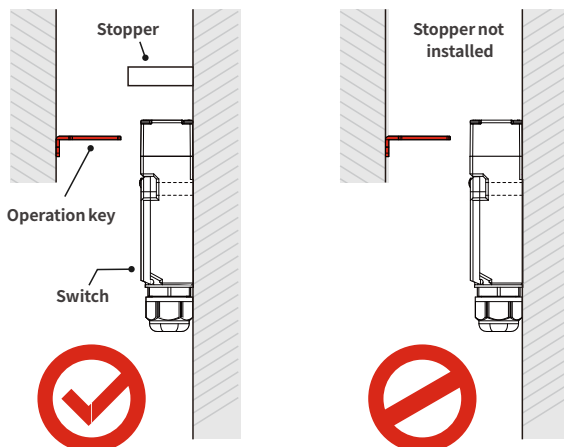
SLAS-D Series Installation Dimensions-Standard type

Units of Measurement | mm



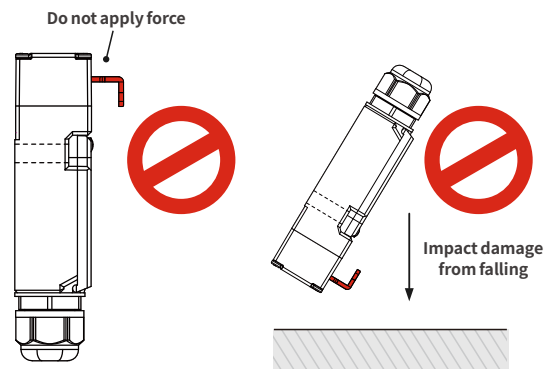
Safety Highlights

- ❗ **Operator Key Positioning:** Ensure the operator key is installed in a position where it will not come into contact with a person when the door is open, to prevent the risk of personal injury.
- ❗ **Switch Body Misuse Prevention:** Do not use the switch body as a stop element. As shown, always set a stop element to avoid collisions between the edge of the operator key and the head of the switch.



Usage Precautions

- ❗ **Original Operating Key Required:** The safety door switch must be operated using the original manufacturer's dedicated operating key. To ensure the safety of the equipment, do not use any tools other than the original operating key to operate the switch.
- ❗ **Proper Installation of Operating Key:** When the operating key is installed on the switch body, do not apply heavy loads or drop objects onto the front end of the operating key, as this may cause the switch to deform or break, directly affecting the safety of use.



Naming rule

Product
Family
Operating
Key



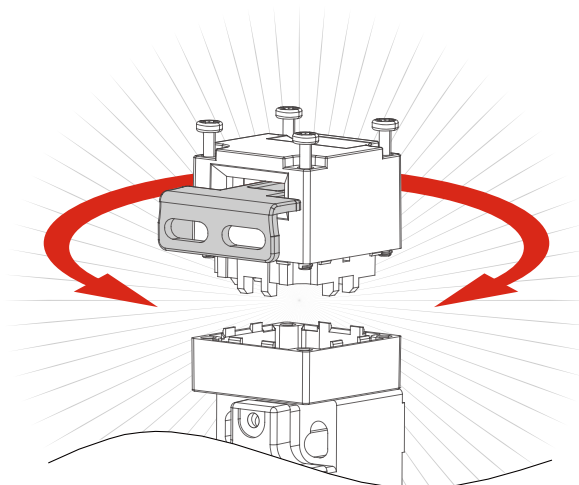
www.lanbao-sensor.com

Installation type

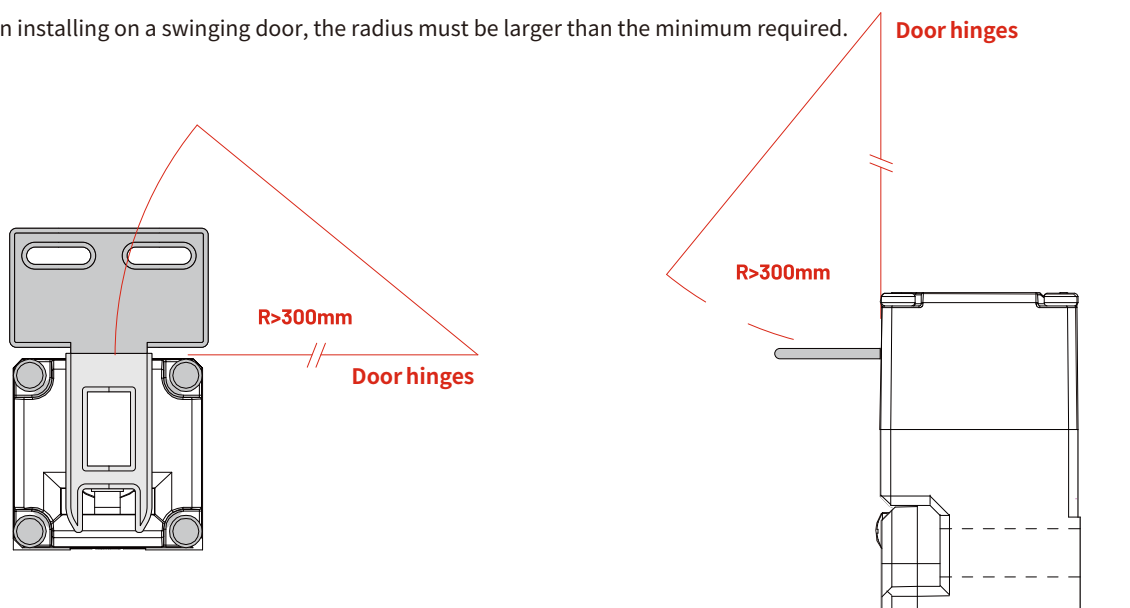
SLAS-D Series

I Installation Precautions

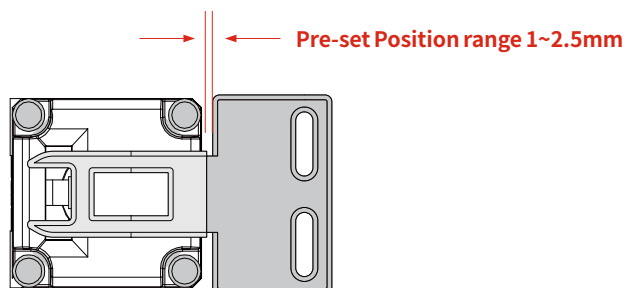
① First, please insert the operating key into the head operation hole. Then, loosen the 4 screws at the top of the head. Finally, rotate the head to select the appropriate operating key hole for installation.



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.



SLB-D

SLC-D

SLD

SLAS-D

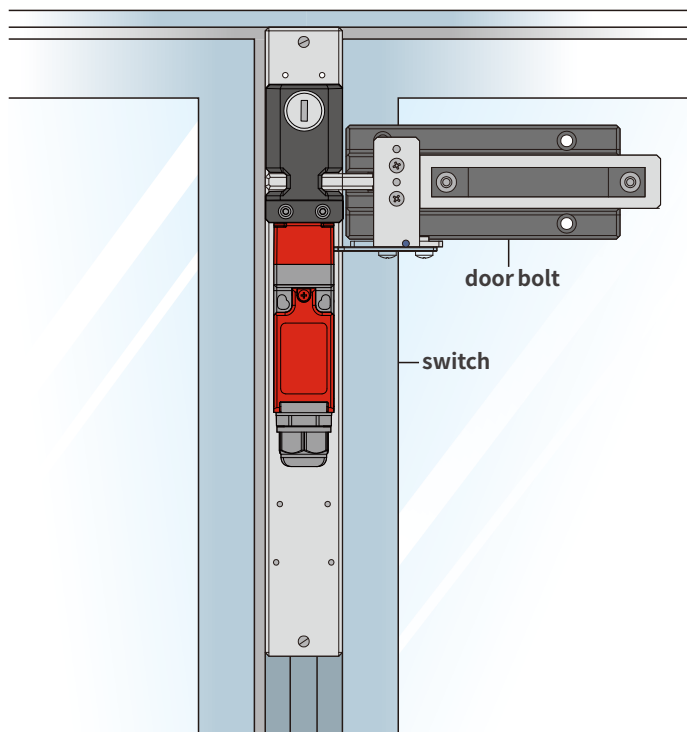
Naming rule

Product
Family
Operating
Key



I Cautionary Notes for Door Fixation

- ❗ **Exceeding Set Range:** When the door is closed (with the operating key inserted), factors such as the door's own weight, mechanical vibration, or cushioning rubber may cause the door (operating key) to exceed the set range. If the door is opened in this state, it may result in premature damage.
- ❗ **Removing the Operating Key:** If the operating key is under a heavy load, it may be impossible to remove it. Do not use the switch directly as a door locking element. Instead, secure the door within the switch's locking range (set area) using a door bolt or similar device.



I Usage Environment

- ❶ These switches are designed for indoor use, and using them outdoors may cause switch malfunctions.
- ❷ **Do Not Use In:**
 - Locations with extreme temperature fluctuations.
 - Places with high humidity that may lead to condensation.
 - Areas with intense vibrations.
 - Environments with solvents such as thinners or detergents.
 - Areas where the inner side of the protective door may be contaminated with powder, machining debris, oil, or chemicals.
 - Environments containing explosive or flammable gases.

Naming rule

Product
Family
Operating
Keywww.lanbao-
sensor.com

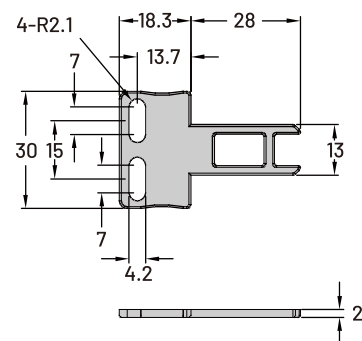
Operation key

Safety Door Switch

I Operation key&Dimensions

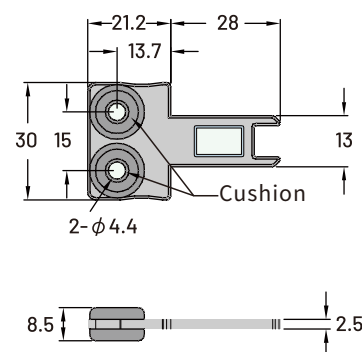
ZJP-K1

T-type operation key



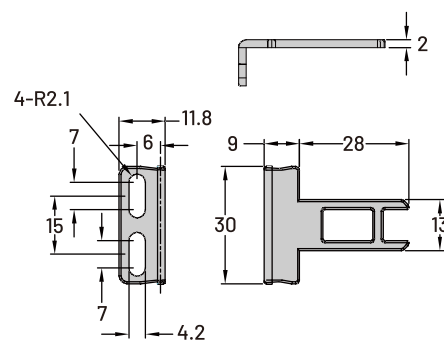
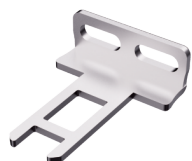
ZJP-K1s

T-type operation key-with cushion



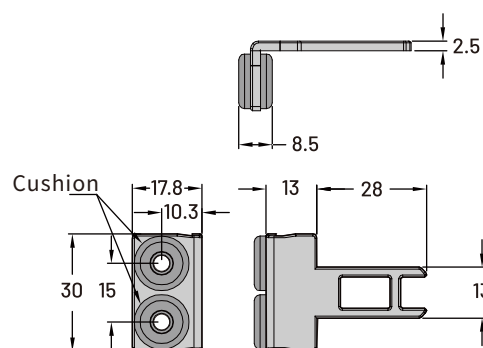
ZJP-K2

L-type operation key



ZJP-K2s

L-type operation key-with cushion



Naming rule

Product
Family

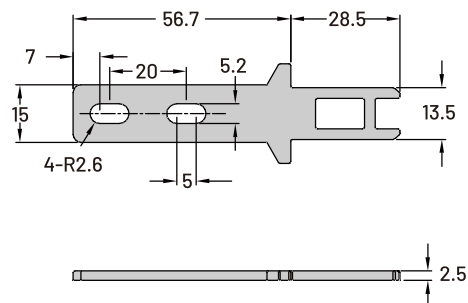
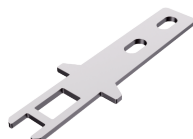
Operating
Key



www.lanbao-
sensor.com

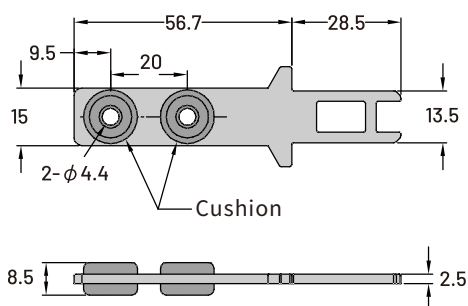
ZJP-K3

Long T-type operating key



ZJP-K3s

Long T-type operating key-with cushion



SLB-D

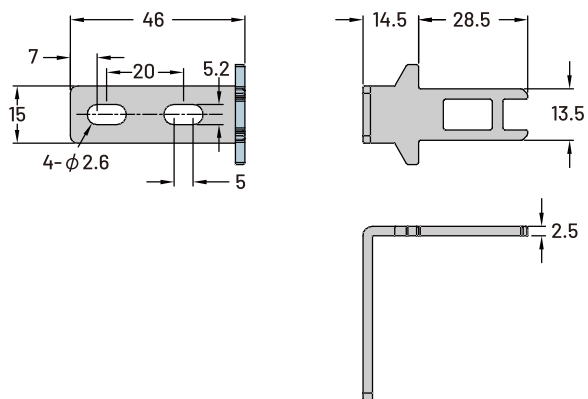
SLC-D

SLD

SLAS-D

ZJP-K4

Long L-type operating key



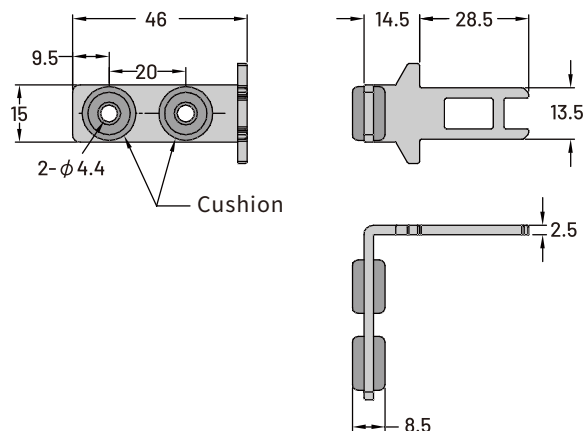
Naming rule

Product Family

Operating Key

ZJP-K4s

Long L-type operating key-with cushion

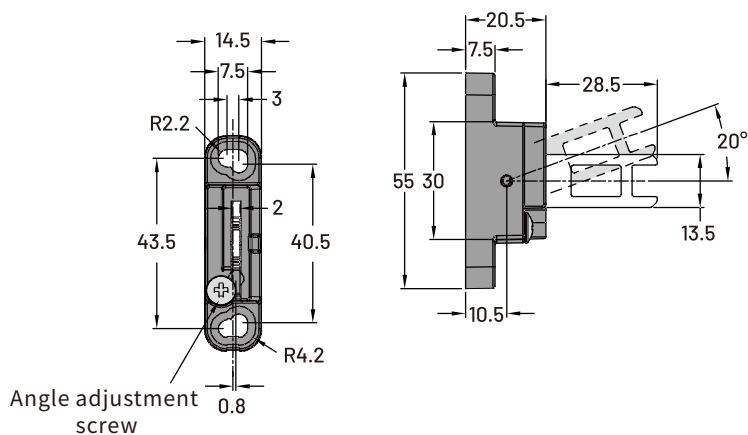
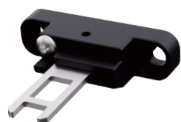


Operation key

Safety Door Switch

ZJP-K5

Horizontally adjustable key



SLB-D

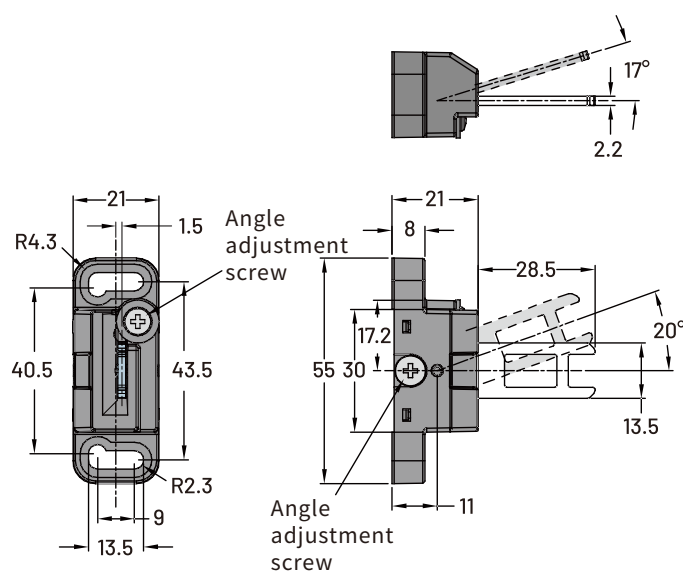
SLC-D

SLD

SLAS-D

ZJP-K6

Horizontally/vertically adjustable key



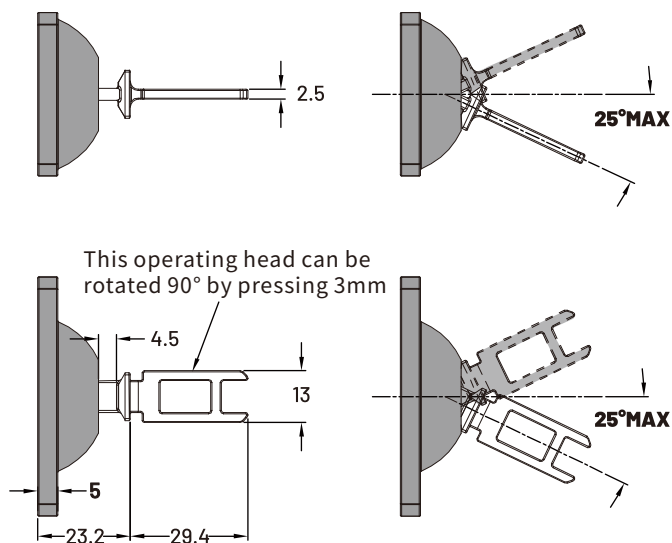
Naming rule

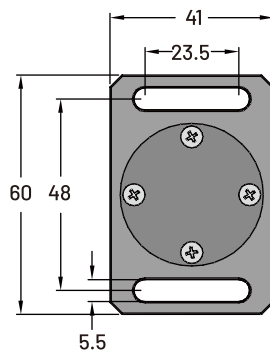
Product
Family

Operating
Key

ZJP-K8

Multi-function operating key





SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product
Family

Operating
Key

