

# SLB-D Series

## Electromagnetic Lock Safety Door Switch



CE

### SLB-D

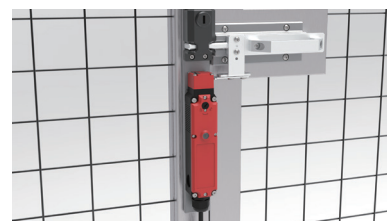
SLC-D

SLD

SLAS-D

- 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



Naming rule

Product  
Family  
Operating  
Key

Safety Latch



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-ET1A1D-D	
			N/A + 1NC/1NO	SLBS-ET1F-D	
Mechanical Locking / Electromagnetic Release				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-MT1A1D-D
				N/A + 1NC/1NO	SLBS-MT1F-D
Electromagnetic Locking / Mechanical 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-ET1A1D-D	
			N/A + 1NC/1NO	SLBM-ET1F-D	
Mechanical Locking / Electromagnetic Release				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-MT1A1D-D
				N/A + 1NC/1NO	SLBM-MT1F-D

SLB-D

SLC-D

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Safety Latch



## I 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	

SLB-D

SLC-D

SLD

SLAS-D


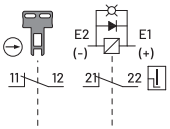






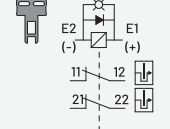






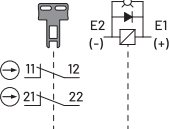






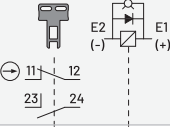






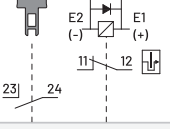






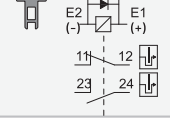






Naming rule

Product  
Family  
Operating  
Key

Safety Latch



## 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□-ET1E-D							
SLB□-ET1A1D-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.

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product Family  
 Operating Key

Safety Latch



## Mechanical lock type



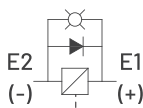




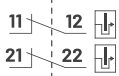

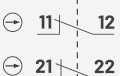

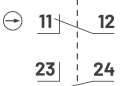


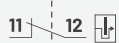

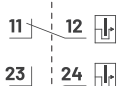
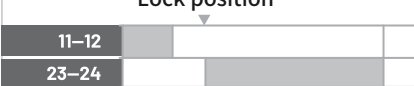
Safety door action status		Status ①	Status ②	Status ③	Status ④	When manually unlocking	
		OFF	OFF	ON	ON	OFF	ON
Electromagnet power supply		ON	OFF	ON	OFF		
Part number and contact structure		Circuit Diagram					
SLB□-MT1B1D-D							
SLB□-MT2D-D							
SLB□-MT2B-D							
SLB□-MT1E-D							
SLB□-MT1A1D-D							
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  
Safety Latch



## 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	
				<p>Travel distance</p>  <p>Operation key fully inserted      Operation key fully removed</p>
<b>SLB□-ET1B1D-D</b> <b>SLB□-MT1B1D-D</b>	1NC+1NC			<p>Lock position</p> 
<b>SLB□-ET2D-D</b> <b>SLB□-MT2D-D</b>	N/A+2NC			<p>Lock position</p> 
<b>SLB□-ET2B-D</b> <b>SLB□-MT2B-D</b>	2NC+N/A			<p>Lock position</p> 
<b>SLB□-ET1E-D</b> <b>SLB□-MT1E-D</b>	1NC/1NO+N/A			<p>Lock position</p> 
<b>SLB□-ET1A1D-D</b> <b>SLB□-MT1A1D-D</b>	1NO+ 1NC			<p>Lock position</p> 
<b>SLB□-ET1F-D</b> <b>SLB□-MT1F-D</b>	N/A+1NC/1NO			<p>Lock position</p> 

SLB-D

SLC-D

SLD

SLAS-D

Naming rule

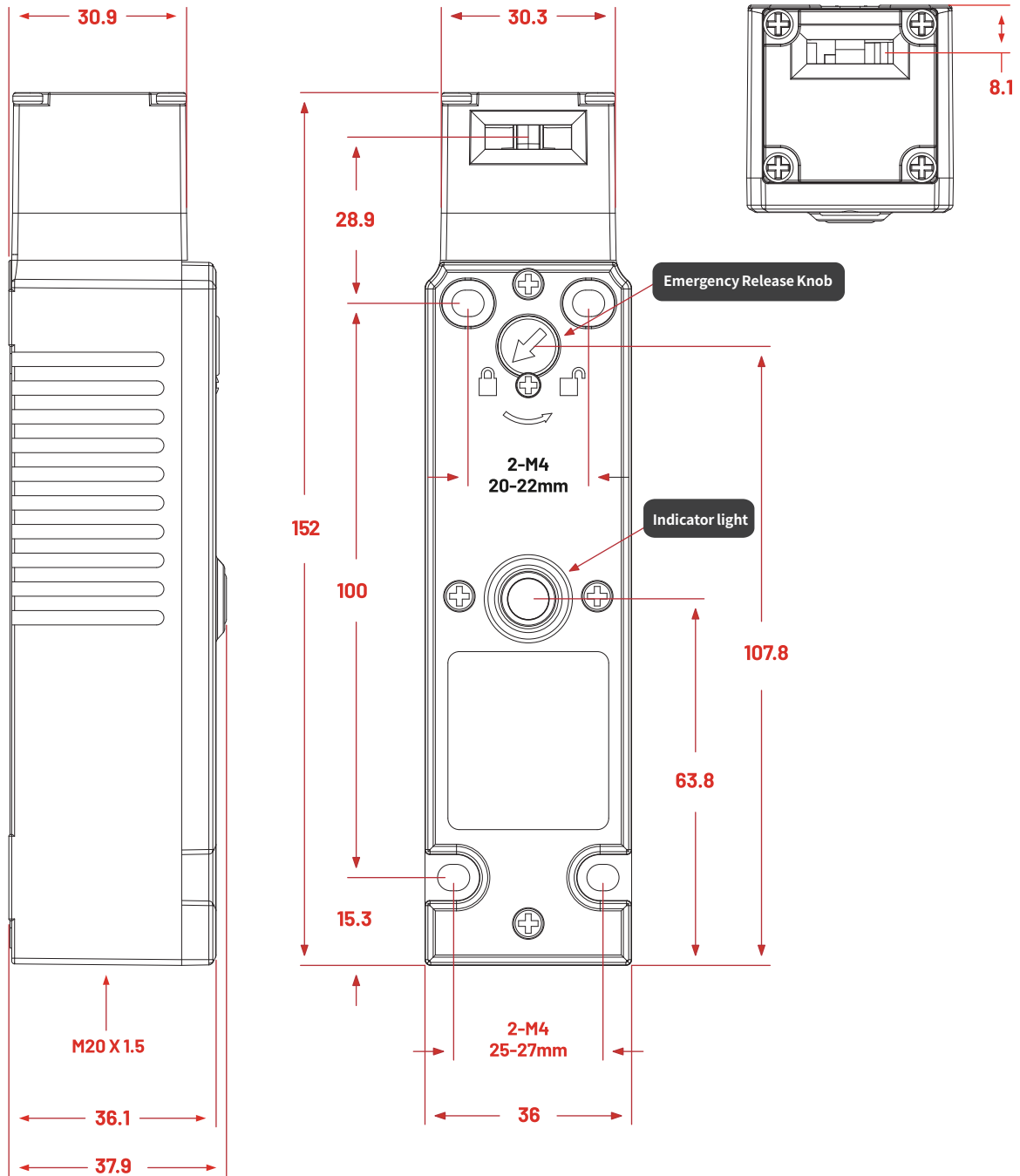
Product Family  
Operating Key

Safety Latch



## SLB-D Series Installation Dimensions

Units of Measurement | mm



SLB-D

SLC-D

SLD

SLAS-D

Naming rule

Product Family

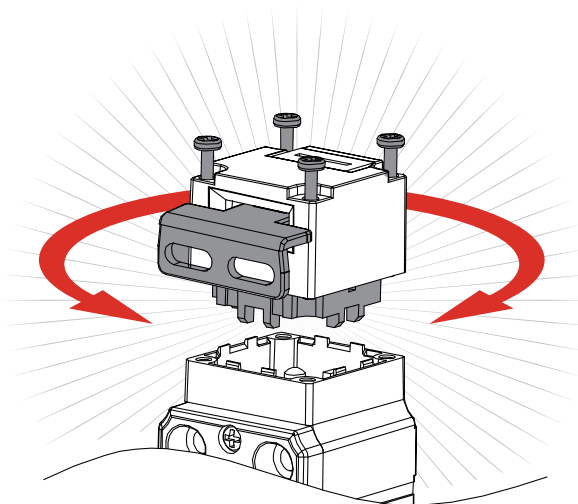
Operating Key

Safety Latch

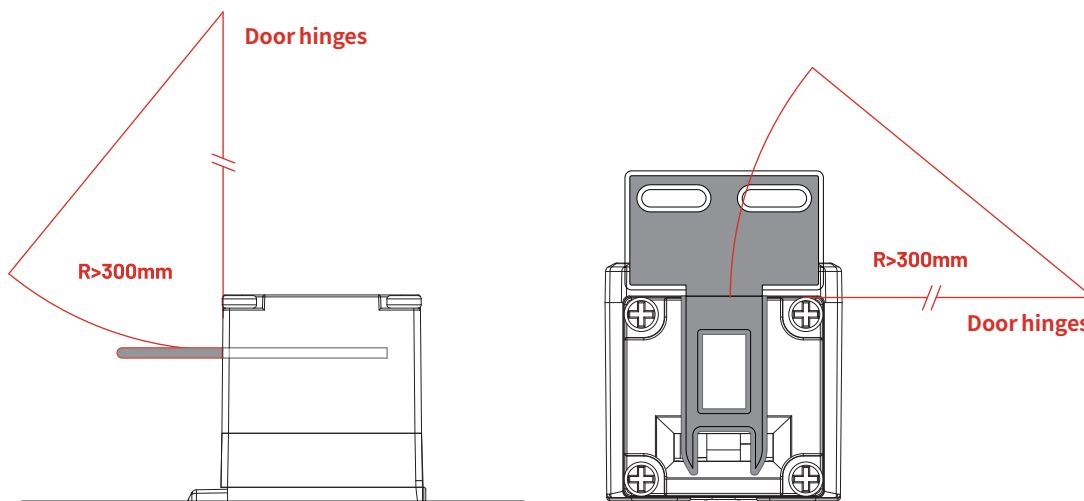


## Installation Precautions

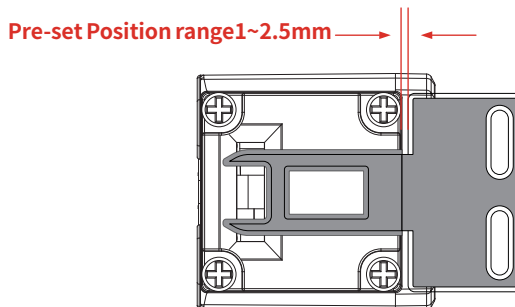
- 1 First, please insert the operating key into the head operation hole. Then, loosen the 4 screws at the top of the head. Finally, rotate the head to select the appropriate operating key hole for installation.



- 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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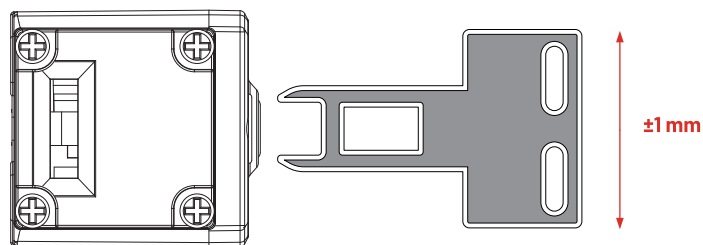
Family

Operating  
Key

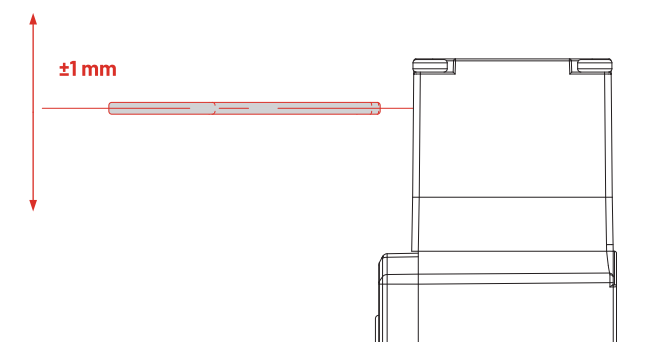
Safety Latch







- 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.

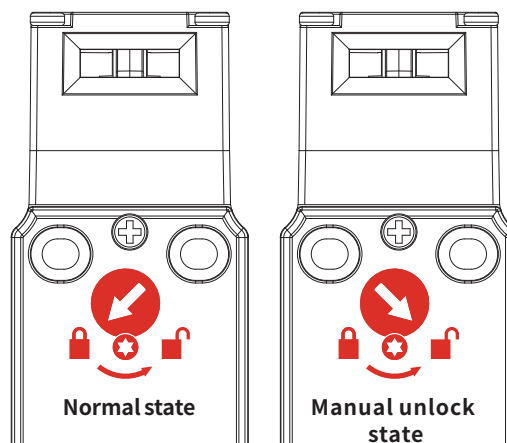


## Emergency unlock button

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.

Naming rule

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Key

Safety Latch



Official Website

## 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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