



SLM11 Series

Multi-contact safety door switch

SLM11 Series Multi-Contact Safety Door Switch Introduction

SLM11 series safety door switch is equipped with multiple sets of contacts, with electromagnetic locking or mechanical locking function, selectable operation key insertion direction and adjustable installation to ensure installation flexibility, locking strength up to the reassuring 1300N, IP67 protection structure, ensuring that it can be widely used in different industrial environments.

Product Feature

- Multiple contacts group for selection
- Holding force is up to 1300N
- IP67 protection rate
- Various inserting direction of key
- Support general load or micro-load

Strong Holding Force, Reliable Safety Protection

- TUV EN 60947-5-1/IEC60947-5-1
- GB/T 14048.5
- IEC 61508
- EN ISO14119



Explanation model (example: SLM11-BPM2)



1. Switch contact(Door monitor + Lock monitor)

- A: 1NO(Slow action) +1NC (Slow action)
- B: 1NC/1NO(Slow action) +2NC(Slow action)
- C: 1NC(Slow action) +1NC(Slow action)
- D : 2NC(Slow action) +1NC(Slow action)
- E: 2NO(Slow action) + 2NC (Slow action)
- F: 1NC/1NO(Slow action) +1NC(Slow action)
- G : 2NC(Slow action) +2NC (Slow action)
- H: 1NC/1NO(Slow action) +1NC/1NO(Slow action)
- I : 1NO(Slow action) +3NC(Slow action)
- J : 1NC(Slow action) +3NC(Slow action)
- L : 3NC(Slow action) +1NC(Slow action)
- M: 2NC(Slow action) +1NC/1NO(Slow action)

2. Head mounting direction/material

- P: 4 mounting direction as selection (front side as ex-work setting)/Plastic
- M: 4 mounting direction as selection (front side as ex-work setting)/Metal

3. Lock/Unlock method

- M Mechanical lock/DC24V Power to release
- Y Mechanical lock/AC110V Power to release
- E DC24V Power to lock/Mechanical release
- X AC110V Power to lock/Mechanical release

4. Connector type

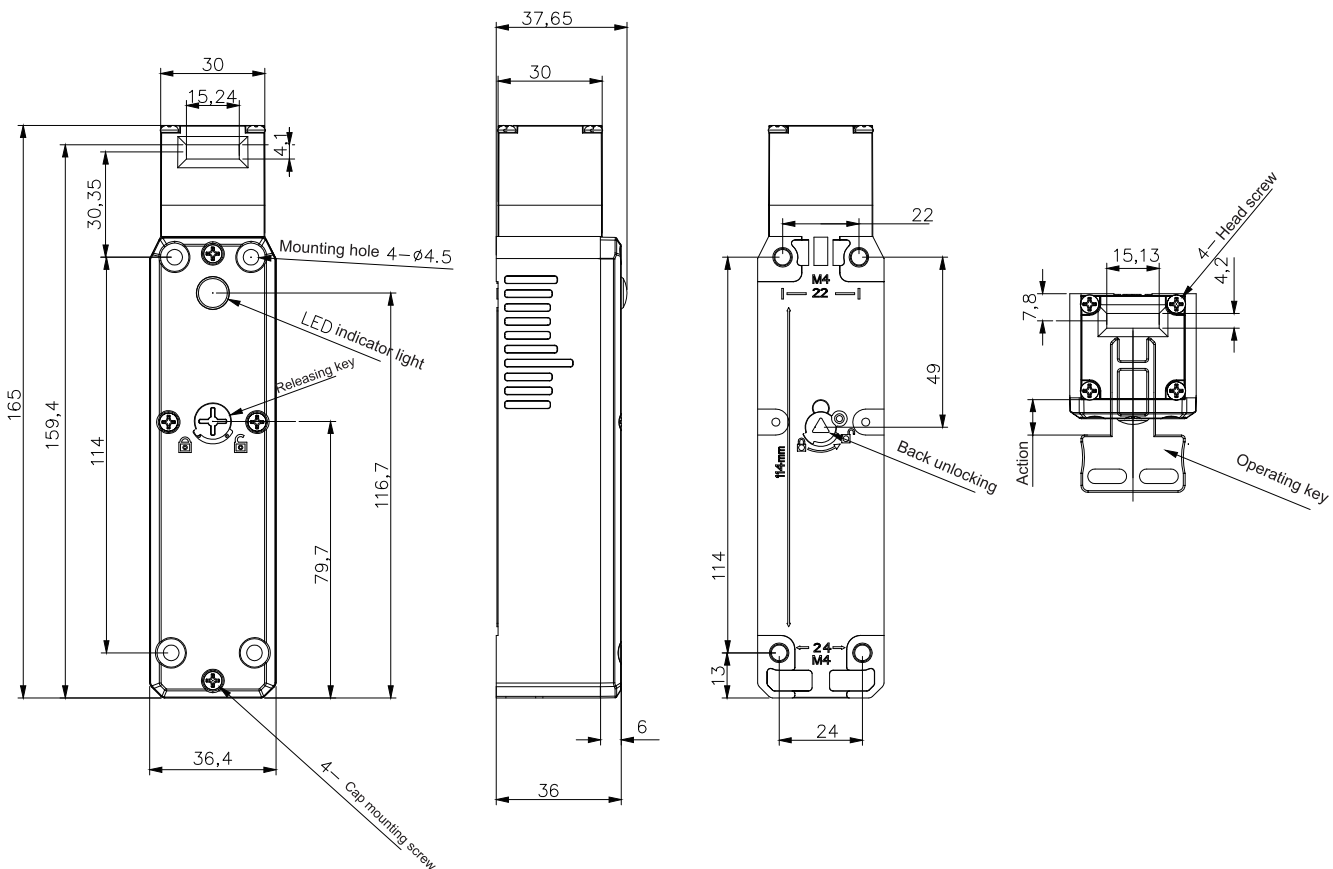
- 1: Pg13.5
- 2: M20

5. Direction of key insertion

- Non: Front
- Back unlocking

Note: 1. M20 is preferred for catheter port size.
 If PG13.5 is selected, the minimum order of 500 sets is required
 2. Do not accept separate order switch head or switch parts.
 (Operating keys sold separately)

Product Size






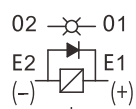
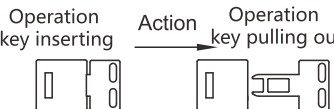

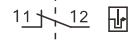
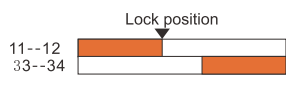
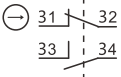
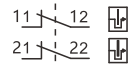
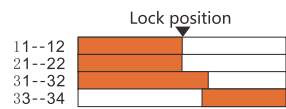
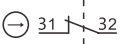
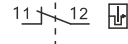
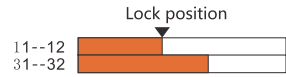
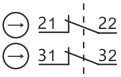
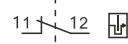
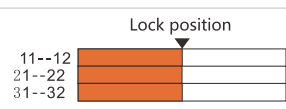

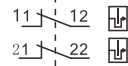
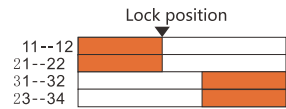
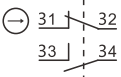
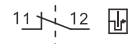
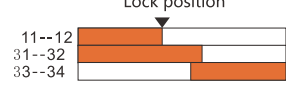
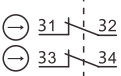
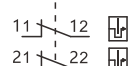
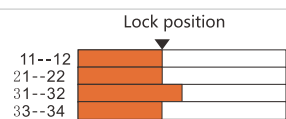
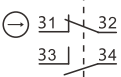
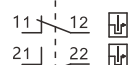
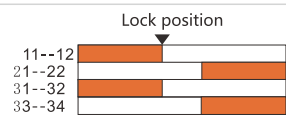

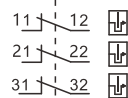
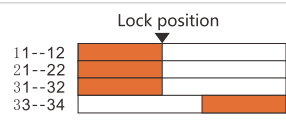
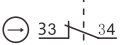
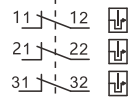
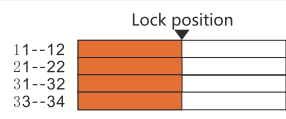
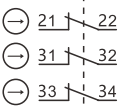
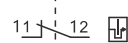

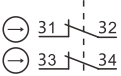
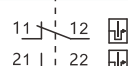
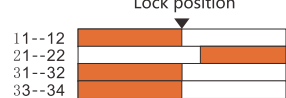
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|---------------------------|
| Safety Light Curtain |
| Measurement Light Curtain |
| Safety Interlock Switch |
| SLM21 Series |
| SLM11 Series |
| SSM11 Series |
| SLR11 Series |
| SSR22 Series |
| EDS-R |
| EDS-L |
| EMB-M01 |
| Laser Radar |

SLM11 series selection sheet

| Head material | Magnet voltage /indicator light | Lock/unlock method | Contact type (door monitor + lock monitor) | Connector | Model |
|-----------------|----------------------------------|-------------------------------------|--|------------|------------|
| Metal | Electromagnet DC24V Green LED | Mechanical lock Power to release | 1NO+1NC | PG13.5 | SLM11-AMM1 |
| | | | | M20 | SLM11-AMM2 |
| | | | 1NC/1NO+2NC | PG13.5 | SLM11-BMM1 |
| | | | | M20 | SLM11-BMM2 |
| | | | 1NC+1NC | PG13.5 | SLM11-CMM1 |
| | | | | M20 | SLM11-CMM2 |
| | | | 2NC+1NC | PG13.5 | SLM11-DMM1 |
| | | | | M20 | SLM11-DMM2 |
| | | | 2NO+ 2NC | PG13.5 | SLM11-EMM1 |
| | | | | M20 | SLM11-EMM2 |
| | | | 1NC/1NO+1NC | PG13.5 | SLM11-FMM1 |
| | | | | M20 | SLM11-FMM2 |
| | | | 2NC+2NC | PG13.5 | SLM11-GMM1 |
| | | | | M20 | SLM11-GMM2 |
| | | | 1NC/1NO+1NC/1NO | PG13.5 | SLM11-HMM1 |
| | | | | M20 | SLM11-HMM2 |
| | | | 1NO+3NC | PG13.5 | SLM11-IMM1 |
| | | | | M20 | SLM11-IMM2 |
| | | 1NC+3NC | PG13.5 | SLM11-JMM1 | |
| | | | M20 | SLM11-JMM2 | |
| | | 3NC+1NC | PG13.5 | SLM11-KMM1 | |
| | | | M20 | SLM11-KMM2 | |
| | | 2NC+1NC/1NO | PG13.5 | SLM11-LMM1 | |
| | | | M20 | SLM11-LMM2 | |
| | | Power to lock Mechanical release | 1NO+1NC | PG13.5 | SLM11-AME1 |
| | | | | M20 | SLM11-AME2 |
| | | | 1NC/1NO+2NC | PG13.5 | SLM11-BME1 |
| | | | | M20 | SLM11-BME2 |
| | | | 1NC+1NC | PG13.5 | SLM11-CME1 |
| | | | | M20 | SLM11-CME2 |
| | | | 2NC+1NC | PG13.5 | SLM11-DME1 |
| | | | | M20 | SLM11-DME2 |
| | | | 2NO+ 2NC | PG13.5 | SLM11-EME1 |
| | | | | M20 | SLM11-EME2 |
| | | | 1NC/1NO+1NC | PG13.5 | SLM11-FME1 |
| | | | | M20 | SLM11-FME2 |
| 2NC+2NC | PG13.5 | | SLM11-GME1 | | |
| | M20 | | SLM11-GME2 | | |
| 1NC/1NO+1NC/1NO | PG13.5 | | SLM11-HME1 | | |
| | M20 | | SLM11-HME2 | | |
| 1NO+3NC | PG13.5 | | SLM11-IME1 | | |
| | M20 | | SLM11-IME2 | | |
| 1NC+3NC | PG13.5 | SLM11-JME1 | | | |
| | M20 | SLM11-JME2 | | | |
| 3NC+1NC | PG13.5 | SLM11-KME1 | | | |
| | M20 | SLM11-KME2 | | | |
| 2NC+1NC/1NO | PG13.5 | SLM11-LME1 | | | |
| | M20 | SLM11-LME2 | | | |

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Structure and action

| Model | Contact type (door monitor + lock monitor) | Picture of wire connection | | Contact action |
|--------------|--|---|---|--|
| | | door monitor | lock monitor |  Contact ON  Contact OFF |
| | |  |  |  |
| SLM11 - AP□□ | 1NO+1NC |  |  |  |
| SLM11 - BP□□ | 1NC/1NO+2NC |  |  |  |
| SLM11 - CP□□ | 1NC+1NC |  |  |  |
| SLM11 - DP□□ | 2NC+1NC |  |  |  |
| SLM11 - EP□□ | 2NO+ 2NC |  |  |  |
| SLM11 - FP□□ | 1NC/1NO+1NC |  |  |  |
| SLM11 - GP□□ | 2NC+2NC |  |  |  |
| SLM11 - HP□□ | 1NC/1NO+1NC/1NO |  |  |  |
| SLM11 - IP□□ | 1NO+3NC |  |  |  |
| SLM11 - JP□□ | 1NC+3NC |  |  |  |
| SLM11 - LP□□ | 3NC+1NC |  |  |  |
| SLM11 - MP□□ | 2 NC+1NC/1NO |  |  |  |

SLM21-APMF1

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Technical Parameter

| Electromagnetic tube | | |
|---------------------------------------|--|-------|
| Rated operating voltage | DC24V | |
| Power | 4.8W | |
| Rated current | approximate 200mA | |
| Insulation | Class B(130°C) | |
| LED indicator | | |
| Rated operating voltage | DC24V | |
| Rated current | approximate 1mA | |
| Luminous color (LED) | Green | |
| Safety level | | |
| Certificate | CE, TUV | |
| Standard | EN60947-5-1, GB14048.5, IEC 61508, EN ISO14119 | |
| Protection rate | IP67 | |
| Material | PA66 fire retardant | |
| PA66 fire retardant | >1000000 times | |
| Mechanical lifespan | 150,000 + times (AC240V3A, resistive load) | |
| Using type | AC-15 | DC-13 |
| Rated operating voltage(Ue) | 240V | 24V |
| Rated operating current(Ie) | 3A | 2A |
| Electrical parameters | | |
| Contact resistance | <25mΩ | |
| Nominal discharge current(Ith) | 10A | |
| Rated insulation voltage(Ui) | 300V | |
| Anti-electric shock level | Class II (Double insulation) | |
| Pulse withstand voltage(EN60947-5-1) | 2.5KV | |
| Insulation resistance | >100mΩ | |
| Short-circuit protection | 10A,250V requires a quick-break fuse | |
| Vibration resistance | 10-55HZ double amplitude 1.5mm | |
| Impact resistance | Durability3000m/s ² Mal-operation 300m/s ² | |
| Conditional short-circuit current | 100A (EN 60947-5-1) | |
| Space of contact | Above 2x2mm | |
| Action characteristic | | |
| Direct opening force | Minimum 60N | |
| Direct opening travel | ≥10mm | |
| Allowed operating speed | 0.1 m ~ 0.5m/s | |
| Allowed operating frequency | Maximum 30 times/minutes | |
| Holding force | 1300N | |
| Environment | | |
| Operating environment | 3 (EN60947-5-1) | |
| Operating temperature | -10°C ~ + 55°C without freezing | |
| Operating humidity | <95%RH | |

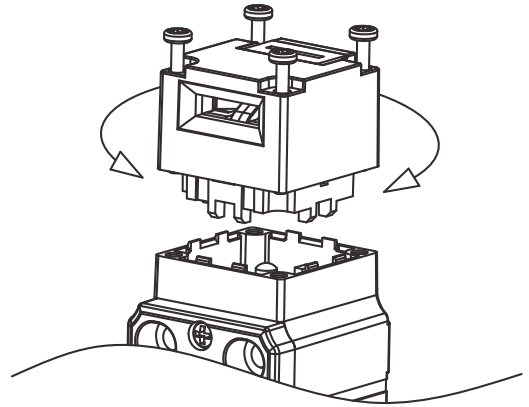
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| Head material | Magnet voltage /indicator light | Lock/unlock method | Contact type (door monitor + lock monitor) | Connector | Model |
|-----------------|----------------------------------|-------------------------------------|--|------------|------------|
| Plastic | Electromagnet DC24V Green LED | Mechanical lock Power to release | 1NO+1NC | PG13.5 | SLM11-APM1 |
| | | | | M20 | SLM11-APM2 |
| | | | 1NC/1NO+2NC | PG13.5 | SLM11-BPM1 |
| | | | | M20 | SLM11-BPM2 |
| | | | 1NC+1NC | PG13.5 | SLM11-CPM1 |
| | | | | M20 | SLM11-CPM2 |
| | | | 2NC+1NC | PG13.5 | SLM11-DPM1 |
| | | | | M20 | SLM11-DPM2 |
| | | | 2NO+ 2NC | PG13.5 | SLM11-EPM1 |
| | | | | M20 | SLM11-EPM2 |
| | | | 1NC/1NO+1NC | PG13.5 | SLM11-FPM1 |
| | | | | M20 | SLM11-FPM2 |
| | | | 2NC+2NC | PG13.5 | SLM11-GPM1 |
| | | | | M20 | SLM11-GPM2 |
| | | | 1NC/1NO+1NC/1NO | PG13.5 | SLM11-HPM1 |
| | | | | M20 | SLM11-HPM2 |
| | | | 1NO+3NC | PG13.5 | SLM11-IPM1 |
| | | | | M20 | SLM11-IPM2 |
| | | 1NC+3NC | PG13.5 | SLM11-JPM1 | |
| | | | M20 | SLM11-JPM2 | |
| | | 3NC+1NC | PG13.5 | SLM11-LPM1 | |
| | | | M20 | SLM11-LPM2 | |
| | | 2NC+1NC/1NO | PG13.5 | SLM11-MPM1 | |
| | | | M20 | SLM11-MPM2 | |
| | | Power to lock Mechanical release | 1NO+1NC | PG13.5 | SLM11-APE1 |
| | | | | M20 | SLM11-APE2 |
| | | | 1NC/1NO+2NC | PG13.5 | SLM11-BPE1 |
| | | | | M20 | SLM11-BPE2 |
| | | | 1NC+1NC | PG13.5 | SLM11-CPE1 |
| | | | | M20 | SLM11-CPE2 |
| | | | 2NC+1NC | PG13.5 | SLM11-DPE1 |
| | | | | M20 | SLM11-DPE2 |
| | | | 2NO+ 2NC | PG13.5 | SLM11-EPE1 |
| | | | | M20 | SLM11-EPE2 |
| | | | 1NC/1NO+1NC | PG13.5 | SLM11-FPE1 |
| | | | | M20 | SLM11-FPE2 |
| 2NC+2NC | PG13.5 | | SLM11-GPE1 | | |
| | M20 | | SLM11-GPE2 | | |
| 1NC/1NO+1NC/1NO | PG13.5 | | SLM11-HPE1 | | |
| | M20 | | SLM11-HPE2 | | |
| 1NO+3NC | PG13.5 | | SLM11-IPE1 | | |
| | M20 | | SLM11-IPE2 | | |
| 1NC+3NC | PG13.5 | SLM11-JPE1 | | | |
| | M20 | SLM11-JPE2 | | | |
| 3NC+1NC | PG13.5 | SLM11-LPE1 | | | |
| | M20 | SLM11-LPE2 | | | |
| 2NC+1NC/1NO | PG13.5 | SLM11-MPE1 | | | |
| | M20 | SLM11-MPE2 | | | |

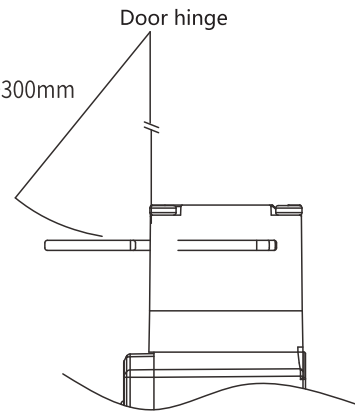
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- EDS-L
- EMB-M01
- Laser Radar

Installation Method

- ★ Releasing the 4 screws on top of the cap, spinning the direction of top cap until the suitable position for key inserting

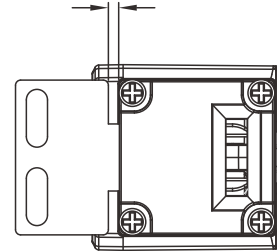


- ★ When install on side hung door, it should be over than semidiameter $R > 300\text{mm}$

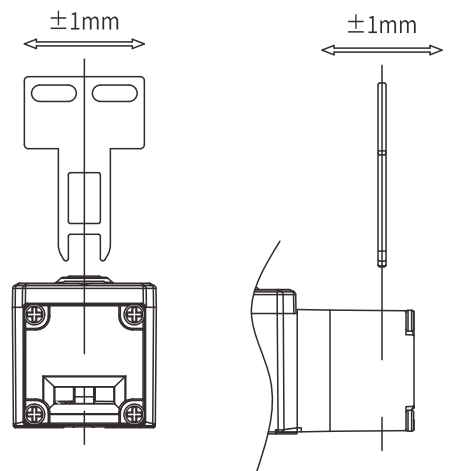


- ★ Please install the safety switch door and insertion key under range 1-3.5mm

Prepare position : 1.0~3.5mm



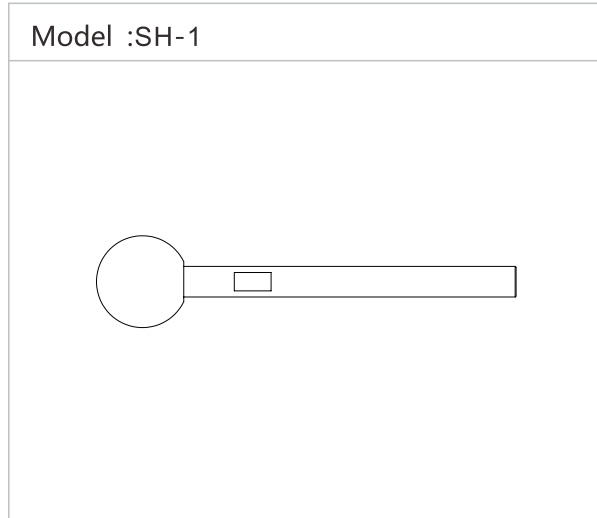
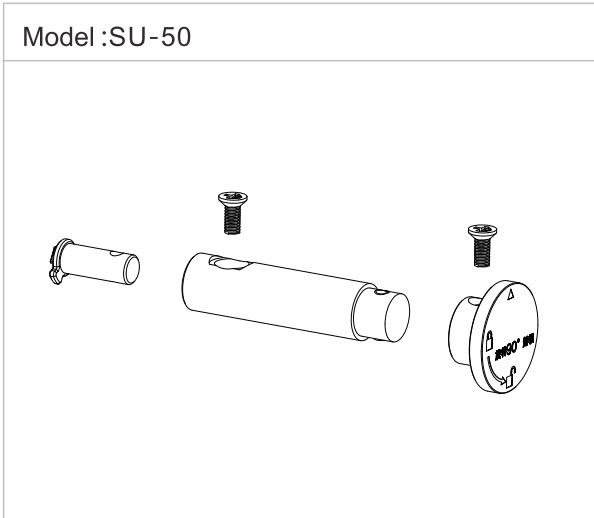
- ★ The installation of operation key allows $\pm 1\text{mm}$ error within the key insertion center of the hole



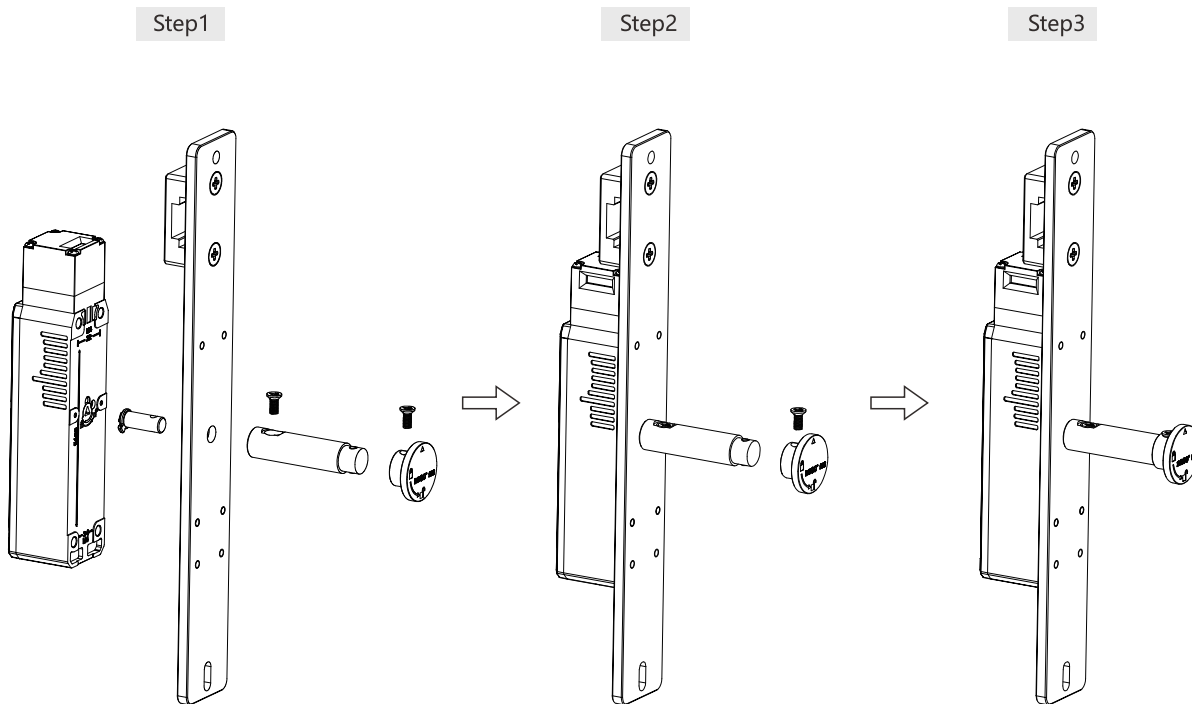
- Safety Light Curtain
- Measurement Light Curtain
- Safety Interlock Switch
- SLM21 Series
- SLM11 Series
- SSM11 Series
- SLR11 Series
- SSR22 Series
- EDS-R
- EDS-L
- EMB-M01
- Laser Radar

Back unlock device

Back handle



Installation of back unlock device



Precaution to back emergency unlock device

1. The unlocking knob on the back is safety measures of emergency evacuation in case that operators accidentally stranded within hazardous area.
2. Rotate the metal knob 90°counterclockwise to release the safety door lock, and the door can be opened.
3. To restore the locked state, please rotate the metal knob 90° clockwise. When the metal knob is in the unlocked position, even if the door is closed, the door cannot be locked.
4. Please be sure to install the emergency unlocking knob on the back in an operable place within the safety fence (hazardous area).
5. Please do not operate the unlocking knob on the back with tools, or apply excessive force, in directions other than the operating direction, or beyond the range of knob rotation angles, so as not to damage the knob components and cause inability to operate.