



## CDSD-T3

- ❖ Fully conformed ISO14119 and GB/T18831 Interlocking structure
- ❖ Metallic Head, SUS304 stainless steel inter component
- ❖ V0 fireproof Body
- ❖ Highlight LED indicator
- ❖ Spring terminals, fast installation, 50% efficiency increasement
- ❖ Integrated manual unlock switch

### Safety monitoring

- ♦ Safety door ♦ Safety window

### Safety output

- ♦ 2NC/NO(lock)+2NC/NO(door)
- ♦ Multi-choices for output

### Application segment

- ♦ Automation production line
- ♦ Industrial robot station
- ♦ Dangerous test area
- ♦ Isolated site



## Metallic head

To protect interlock components

## Special design

Force guard design for interlock structure to prevent general tool operation. Pull strength for key actuator when lock is over 2000N

## Spring terminal

Waterproof glnhead mountable

## 2 operation types

Top and side, suitable for multi-positon of installation

## SUS304 stainless

Used as interlock components and key actutor, durable material

## Lock function

selectable mechanical or electromagnetic lock types

## LED Indicator

Easy for knowing device status

## integrated manual unlock switch

Use hexagon socket screwdriver to manully unlock

## Head can be rotate 4 direction

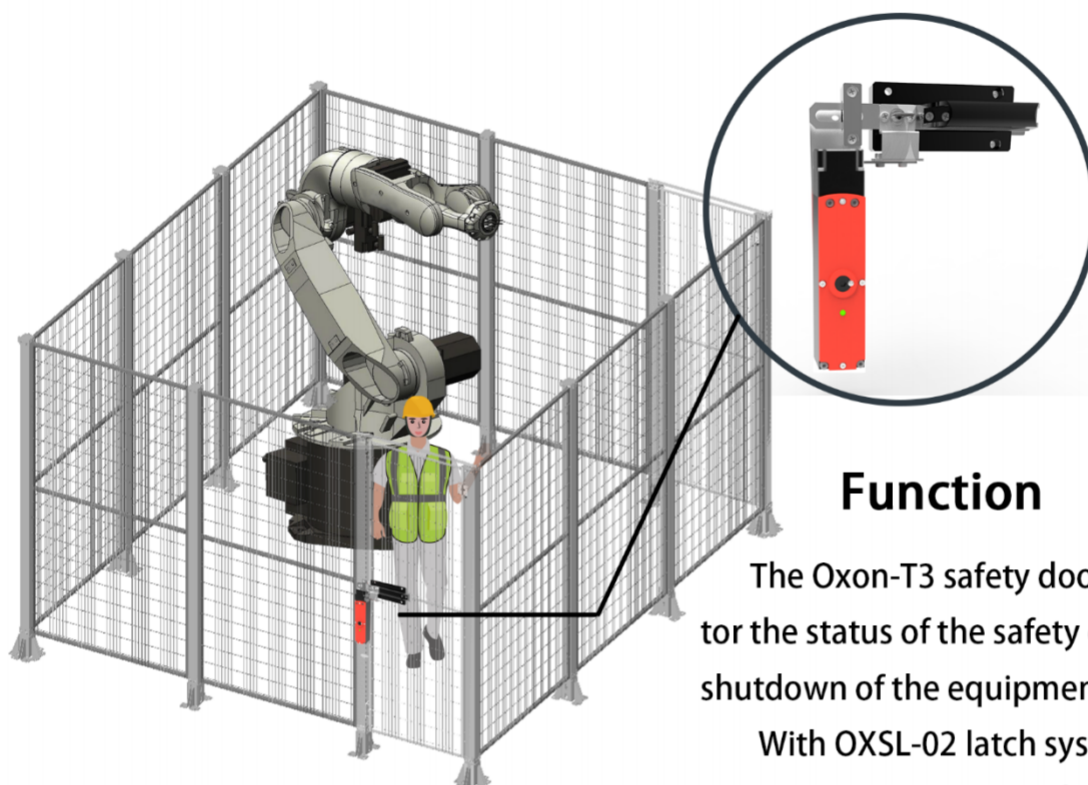
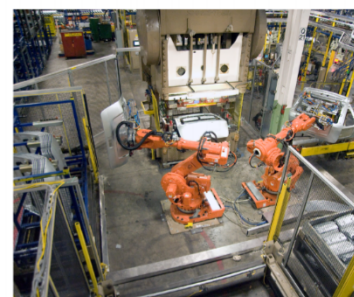
Suitable for different install position

## Spring terminals for fast installation

Increase 50% efficiency when installation and prevent the wurd from loosening

## Application

Use for safety door and window monitoring, conform ISO 14119 and GB/T18831.



## Function

The Oxon-T3 safety door lock is used to monitor the status of the safety door to ensure reliable shutdown of the equipment.

With OXSL-02 latch system and LOTO accessories, it can prevent unauthorized person from operating the equipment to lead accidents.



Oxon-T3 safety interlock switch can be connected with Tner-A31.n safety relay into a high-level safety circuit



Used to control equipment to stop and start reliably



## CDSD-T3

### ➤ Safety forcibly guided contact output

- 2 normal open contact (1NC+1NC)
- 1NC for safety door monitoring
- 1NC for safety lock monitoring

### ➤ General output

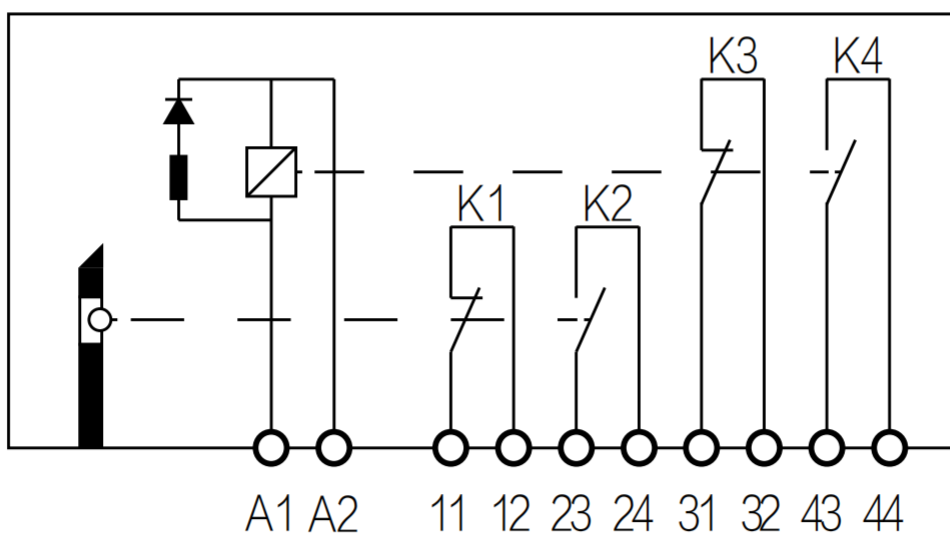
- Multi-choices for output (see type selection)

### ➤ LED Indicator

- Highlight LED indicator

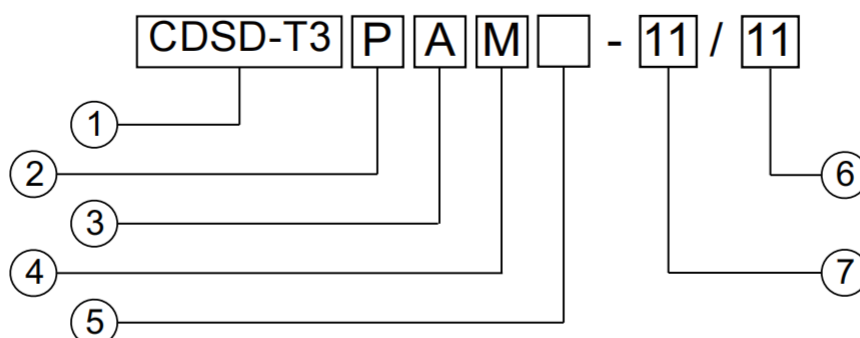
### ➤ Safety specialty

- Force guard safety output, mechanical interlocking, mishandling prevent
- Special design to prevent general tool operation
- Dual-channel output, higher reliability for safety system
- Highlight LED indicator, easy for knowing status



( Example: CDSD-T3PAM-11/11 )

## ➤ Type selection



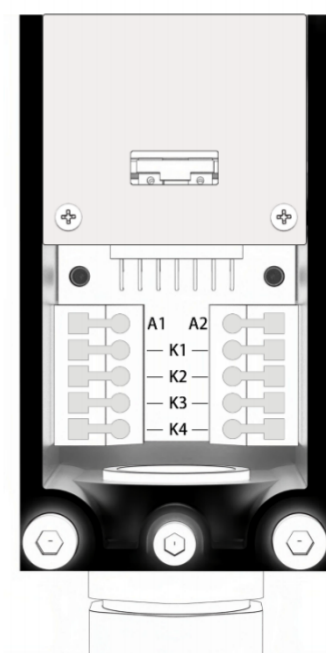
| No. | Definition                                                |
|-----|-----------------------------------------------------------|
| 1   | Product type                                              |
| 2   | Tube or connector type, P: PG13.5                         |
| 3   | Control type, A: Mechanical lock / Electromagnetic unlock |
|     | Control type, G: Electromagnetic lock / Off-power unlock  |
| 4   | Head type, M: Metallic Head                               |
| 5   | Reserved                                                  |
| 6   | Output for key actuator monitoring: 11(1NC+1NO), 20(2NC)  |
| 7   | Output for lock monitoring: 11(1NC+1NO), 20(2NC)          |

## ➤ Terminal function description

(Open red panel to see terminals)

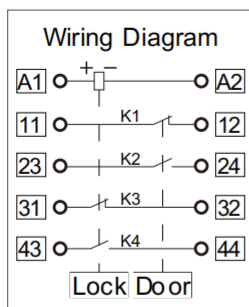
| Function             | Name of Terminals |           | Function      |
|----------------------|-------------------|-----------|---------------|
| Control signal 24VDC | A1                | A2        | Negative 0V   |
| K1 terminal 1        | 11                | - K1 - 12 | K1 terminal 2 |
| K2 terminal 1        | 23                | - K2 - 24 | K2 terminal 2 |
| K3 terminal 1        | 31                | - K3 - 32 | K3 terminal 2 |
| K4 terminal 1        | 43                | - K4 - 44 | K4 terminal 2 |

(Example: CDSD-T3PAM-11/11, check below for other types)

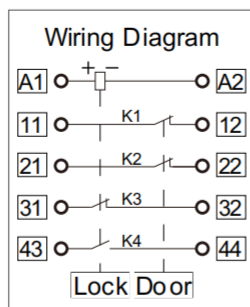




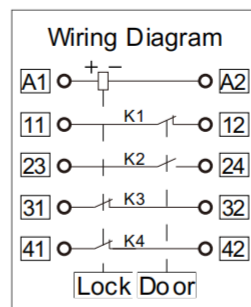
Mechanical lock / Electromagnetic unlock (Diagram shows status of contact when key actuator inserted and mechanical locked)



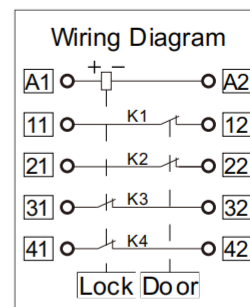
CDSD-T3PAM-11/11



CDSD-T3PAM-11/20

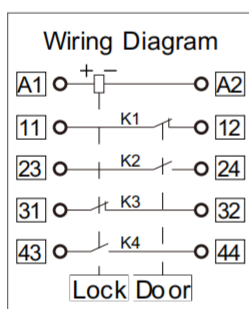


CDSD-T3PAM-20/11

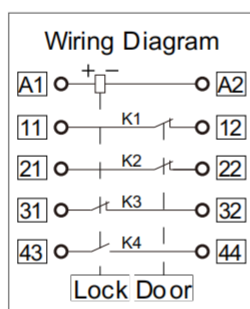


CDSD-T3PAM-20/20

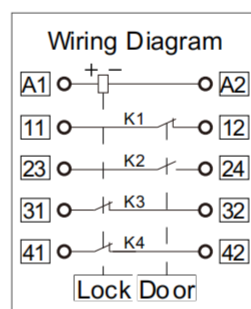
Electromagnetic lock / Off-power unlock (Diagram shows status of contact when key actuator inserted and electromagnetic locked)



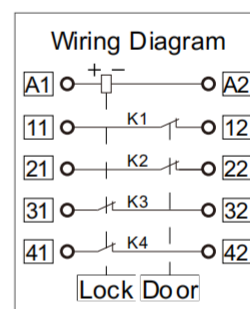
CDSD-T3PGM-11/11



CDSD-T3PGM-11/20



CDSD-T3PGM-20/11



CDSD-T3PGM-20/20

## Operation timing description

| Type             | Output                     |                           | Operation timing description<br>(■ ON / □ OFF) | Remark                                                                                    |
|------------------|----------------------------|---------------------------|------------------------------------------------|-------------------------------------------------------------------------------------------|
|                  | Key actuator<br>Monitoring | Lock status<br>Monitoring |                                                |                                                                                           |
| CDSD-T3PAM-11/11 |                            |                           |                                                | NC contactor conformed<br>ISO14119 and GB/T18831<br>force guard interlocking<br>structure |
| CDSD-T3PAM-11/20 |                            |                           |                                                | NC contactor conformed<br>ISO14119 and GB/T18831<br>force guard interlocking<br>structure |

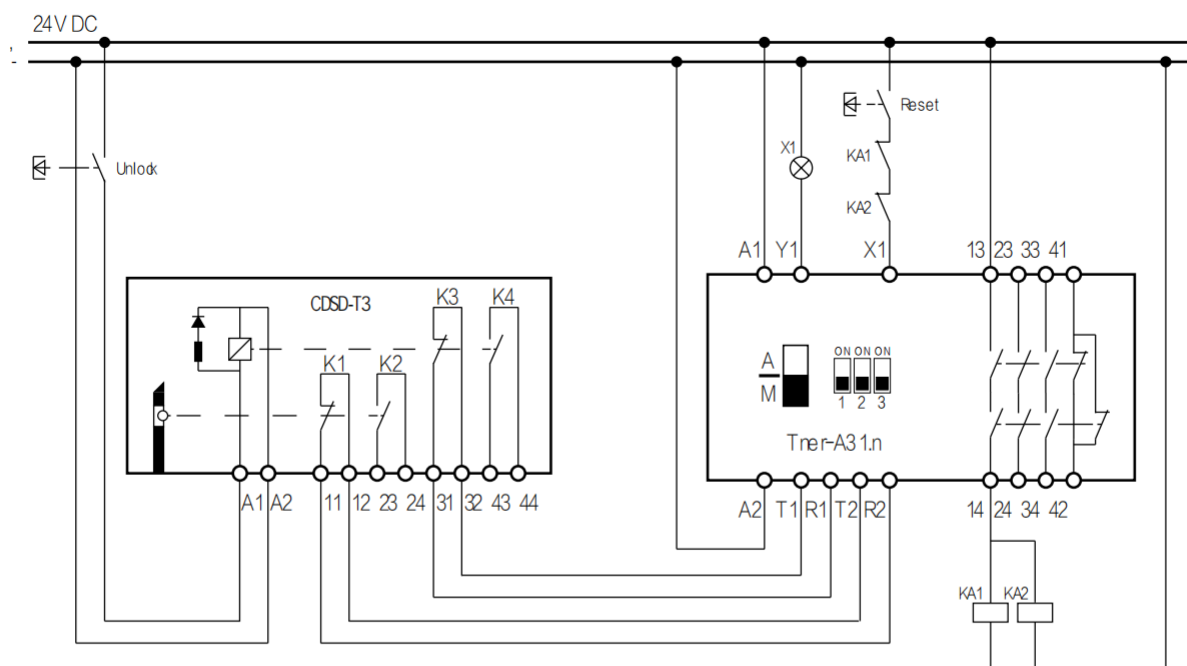
|                  |  |  |                                                                                           |
|------------------|--|--|-------------------------------------------------------------------------------------------|
| CDSD-T3PAM-20/11 |  |  | NC contactor conformed<br>ISO14119 and GB/T18831<br>force guard interlocking<br>structure |
| CDSD-T3PAM-20/20 |  |  | NC contactor conformed<br>ISO14119 and GB/T18831<br>force guard interlocking<br>structure |
| CDSD-T3PGM-11/11 |  |  | NC contactor conformed<br>ISO14119 and GB/T18831<br>force guard interlocking<br>structure |
| CDSD-T3PGM-11/20 |  |  | NC contactor conformed<br>ISO14119 and GB/T18831<br>force guard interlocking<br>structure |
| CDSD-T3PGM-20/11 |  |  | NC contactor conformed<br>ISO14119 and GB/T18831<br>force guard interlocking<br>structure |
| CDSD-T3PGM-20/20 |  |  | NC contactor conformed<br>ISO14119 and GB/T18831<br>force guard interlocking<br>structure |

## LED indication

|                |      |        |
|----------------|------|--------|
| CDSD-T3PAM-□/□ | Lock | Unlock |
| LED Status     | OFF  | ON     |

|                |      |        |
|----------------|------|--------|
| CDSD-T3PGM-□/□ | Lock | Unlock |
| LED Status     | ON   | OFF    |

## ➤ Connection example

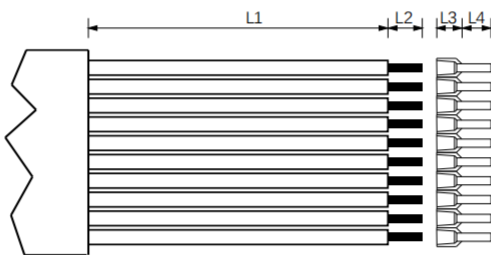


(Connection example for CDSD-T3PAM-11/11 with Tner-A31.n, manual reset)

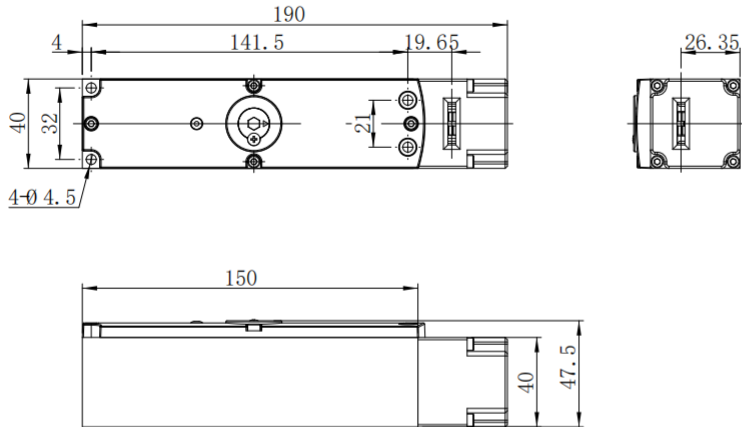
## ➤ Technical specification

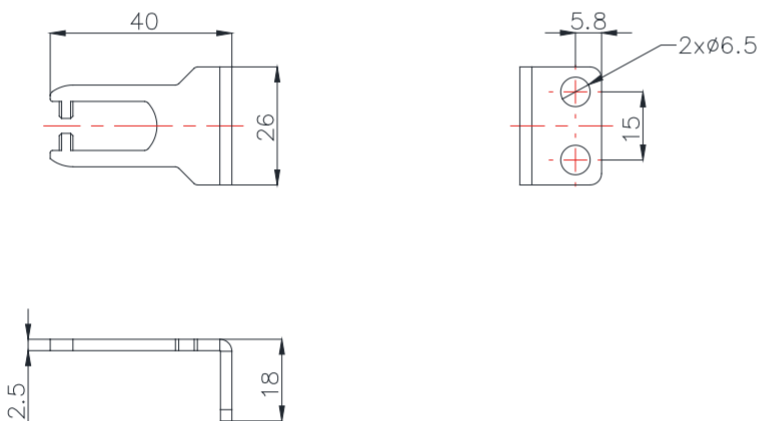
| Power                                      |                                          |
|--------------------------------------------|------------------------------------------|
| Power supply                               | 24V DC                                   |
| Tolerance                                  | +10%/-25%                                |
| Stabilize current                          | 0.12A                                    |
| Instantaneous current                      | 0.95A (2s)                               |
| Stabilize power consumption                | 2.9W                                     |
| Output                                     |                                          |
| Safety output                              | 2NC                                      |
| Output                                     | Depends on types                         |
| Switching characteristic of safety contact |                                          |
| Capacitor of Contactor                     | AC-15: 1.5A 125VAC<br>DC-13: 0.22A 24VDC |
| Contact resistor                           | <100mΩ                                   |
| Minimum load                               | 10mA/5V                                  |
| Contact material                           | AgSnO2 + 0.2μmAu                         |

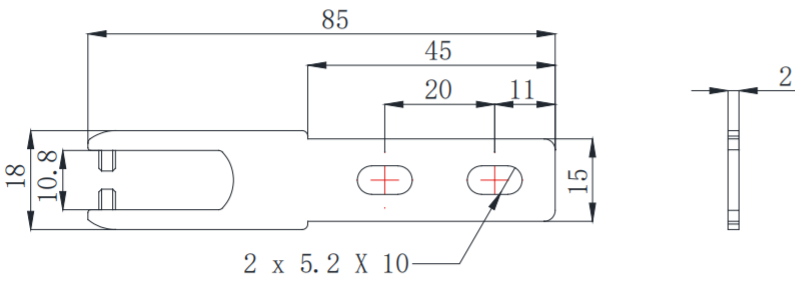
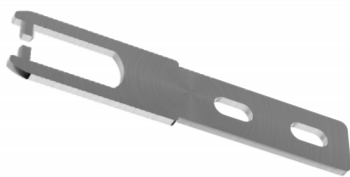


| General specification                    |                                                                                      |
|------------------------------------------|--------------------------------------------------------------------------------------|
| Response time when unlocking             | <14ms (from input to output)                                                         |
| Pull strength for key actuator when lock | 2000N                                                                                |
| Mechanical life                          | 150,000 times                                                                        |
| Electrical life                          | 50,000 times                                                                         |
| Max operation frequency                  | ≥1Hz                                                                                 |
| Pollution degree                         | 3                                                                                    |
| operating temperature range              | -25℃～85℃                                                                             |
| Operating humidity range                 | 35%-85% (Not frozen or condensed)                                                    |
| Impulse withstand voltage                | 2.5kV                                                                                |
| Protection class                         | IP67                                                                                 |
| Storage temperature range                | -40℃～105℃                                                                            |
| Enclosure material                       | V0 fireproof ABS                                                                     |
| Interlocking component                   | SUS304 stainless                                                                     |
| Size                                     | 190mm×40mm×40mm                                                                      |
| Weight                                   | 430g                                                                                 |
| Wiring specification                     |                                                                                      |
| Terminal                                 | Spring terminal connector                                                            |
| Wire cross-section                       | 22-16 AWG                                                                            |
| Wire stripping length                    | L1=40±3mm, L2=10mm±1mm                                                               |
| Wire terminal type                       | Tube terminals, L3≤8mm, L4≤14mm                                                      |
|                                          |  |
| Conformity                               |                                                                                      |
| Tested in accordance with                | IEC 60947-5-1 / GBT 14048.5<br>ISO 14119 / GBT 18831                                 |

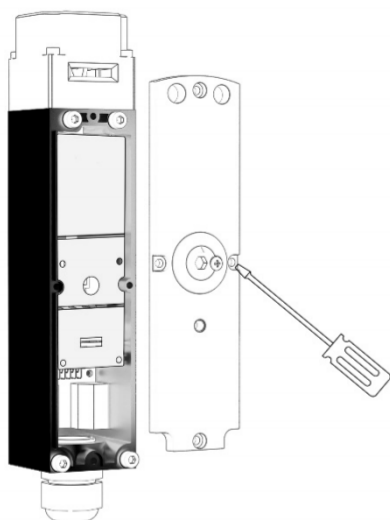
## Size

| Body                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | CDSD-T3                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Technical drawing of the CDSD-T3 body. The front view shows a rectangular body with a total width of 190 mm. The distance between the two main mounting holes is 141.5 mm. The distance from the left edge to the first mounting hole is 4 mm. The distance between the two mounting holes is 19.65 mm. The distance from the right edge to the last mounting hole is 21 mm. The height of the body is 40 mm. The distance from the top edge to the mounting holes is 32 mm. The distance from the bottom edge to the mounting holes is 4 mm. The distance between the two mounting holes is 4 mm. The side view shows a height of 150 mm and a width of 40 mm. The top view shows a width of 26.35 mm and a height of 47.5 mm.</p> |  <p>3D rendering of the CDSD-T3 body, showing a red and black safety interlock device with the brand name 'CYNDAR' visible.</p> |

| Key actuator                                                                                                                                                                                                                                                                                                                                                                                        | CDCP-01                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Technical drawing of the CDCP-01 key actuator. The front view shows a key with a width of 40 mm and a height of 26 mm. The side view shows a height of 18 mm and a width of 2.5 mm. The top view shows a width of 5.8 mm and a height of 15 mm. The distance between the two mounting holes is 2 x Ø6.5.</p> |  <p>3D rendering of the CDCP-01 key actuator, showing a black metal key with two mounting holes.</p> |

| Key actuator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | CDCP-02                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Technical drawing of the CDCP-02 key actuator. The front view shows a key with a width of 85 mm and a height of 18 mm. The distance between the two mounting holes is 45 mm. The distance from the left edge to the first mounting hole is 20 mm. The distance from the right edge to the last mounting hole is 11 mm. The height of the key is 15 mm. The distance from the top edge to the mounting holes is 10.8 mm. The distance between the two mounting holes is 2 x 5.2 x 10. The side view shows a height of 2 mm. The top view shows a width of 2 mm.</p> |  <p>3D rendering of the CDCP-02 key actuator, showing a black metal key with two mounting holes.</p> |

## ➤ Installation



| step | Operation                                                                                                                                                                                                |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Use a screwdriver to remove the four M3*45 bolts on the head, adjust and rotate the head to the specified position according to the installation direction of the lock body, and then tighten the bolts. |
| 2    | Use M4 hexagon socket bolt to install the lock body, the length of the screw is recommended to be greater than 50mm                                                                                      |
| 3    | Use a screwdriver to remove the four M3*6 bolts on the red panel and open the panel                                                                                                                      |
| 4    | Mount waterproof glen-head or tube                                                                                                                                                                       |
| 5    | Thread cable and mount to terminals according to the wiring diagram                                                                                                                                      |
| 6    | Finished function test and install red panel                                                                                                                                                             |

## ➤ Main Order information

### Interlock body

| Type             | Item No.    | Qty. | Lock/Unlock Type                        | Tube Type | Power  | Lock monitoring output | Key actuator monitoring |
|------------------|-------------|------|-----------------------------------------|-----------|--------|------------------------|-------------------------|
| CDSD-T3PAM-11/11 | 01120401002 | 1    | Mechanical lock / electromagnetic       | PG13.5    | 24V DC | 1NO / 1NC              | 1NO / 1NC               |
| CDSD-T3PAM-11/20 | 01120401012 | 1    | Mechanical lock / electromagnetic       | PG13.5    | 24V DC | 1NO / 1NC              | 2NC                     |
| CDSD-T3PAM-20/11 | 01120401022 | 1    | Mechanical lock / electromagnetic       | PG13.5    | 24V DC | 2NC                    | 1NO / 1NC               |
| CDSD-T3PAM-20/20 | 01120401032 | 1    | Mechanical lock / electromagnetic       | PG13.5    | 24V DC | 2NC                    | 2NC                     |
| CDSD-T3PGM-11/11 | 01120401042 | 1    | Electromagnetic lock / Off-power unlock | PG13.5    | 24V DC | 1NO / 1NC              | 1NO / 1NC               |
| CDSD-T3PGM-11/20 | 01120401052 | 1    | Electromagnetic lock / Off-power unlock | PG13.5    | 24V DC | 1NO / 1NC              | 2NC                     |
| CDSD-T3PGM-20/11 | 01120401062 | 1    | Electromagnetic lock / Off-power unlock | PG13.5    | 24V DC | 2NC                    | 1NO / 1NC               |
| CDSD-T3PGM-20/20 | 01120401072 | 1    | Electromagnetic lock / Off-power unlock | PG13.5    | 24V DC | 2NC                    | 2NC                     |

**Key actuator**

| Type    | Item No.    | Qty. | Material         |
|---------|-------------|------|------------------|
| CDCP-01 | 01120402002 | 1    | SUS304 stainless |
| CDCP-02 | 01120402003 | 1    | SUS304 stainless |

**➤ Accessory Order information****Latch complete system**

| Type    | Item No.    | Qty. | Material  | Operating type | Operation key |
|---------|-------------|------|-----------|----------------|---------------|
| CDSL-02 | 01120409002 | 1    | Aluminium | Manual         | Include       |