



SDL-M1 Compact EM Interlock

- ❖ Fully conformed ISO14119 and GB/T18831 Interlocking structure
- ❖ Compact size design
- ❖ Four direction rotation head installation design
- ❖ High strength engineering plastic with SUS304 stainless steel inter component
- ❖ V0 fireproof Body
- ❖ Highlight LED indicator
- ❖ Forced mechanical interlocking self-detection structure with extremely high reliability
- ❖ Integrated manual unlock switch



Monitoring

- ♦ Safety Door
- ♦ Safety Window

Force Safety Output (instantaneous)

- ♦ 2 x coil detection safety contacts
- ♦ 2 x key detection safety contact
- ♦ Multiple contact combinations available

Application segment

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

➤ Safety forcibly guided contact output

- 2 x coil detection instantaneous safety contacts
- 2 x key detection instantaneous safety contact

➤ General output

- Multiple contact combinations available for output (see type selection)

➤ LED Indicator

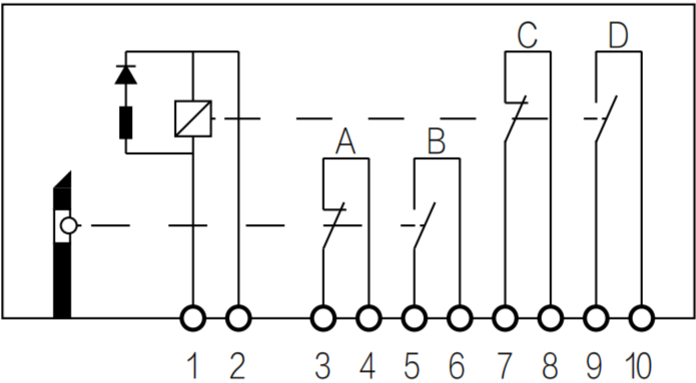
- Highlight LED indicator

➤ Safety specialty

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

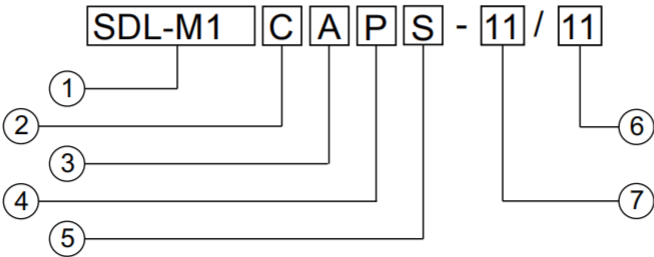


➤ System module diagram



System module diagram - SDL-M1CAP-11/11 as example

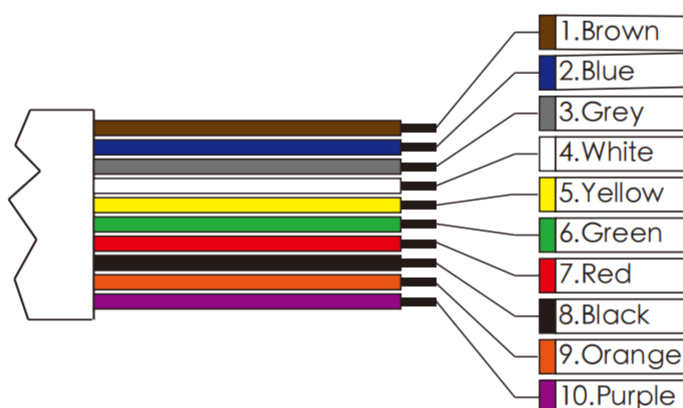
➤ Type selection



No.	Definition
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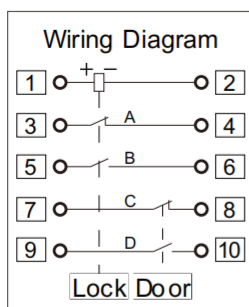
1	Product type		
2	C: with cable		
3	Control type, A: Mechanical lock / Electromagnetic unlock		
	Control type, G: Electromagnetic lock / Off-power unlock		
4	Head type, P: Plastic Head		
5	Cable Length	S: 1.5-meter Cable Length	T: 3-meter Cable Length
6	Output for key actuator monitoring: 11(1NC+1NO), 20(2NC)		
7	Output for lock monitoring: 11(1NC+1NO), 20(2NC)		

➤ Terminal function description

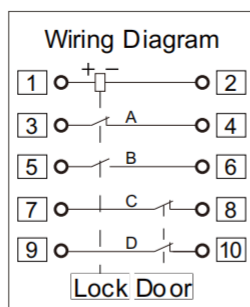


No.	Color	Definition	Description
1	Brown	24VDC	24V DC
2	Blue	0V	0V DC
3	Grey	A1	A contact terminal 1
4	White	A2	A contact terminal 2
5	Yellow	B1	B contact terminal 1
6	Green	B2	B contact terminal 2
7	Red	C1	C contact terminal 1
8	Black	C2	C contact terminal 2
9	Orange	D1	D contact terminal 1
10	Purple	D2	D contact terminal 2

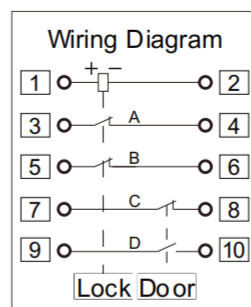
Mechanical lock / Electromagnetic unlock (Diagram shows status of contact when key actuator inserted and mechanical locked)



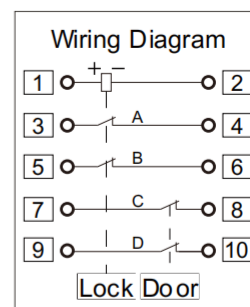
SDL-M1CAPS-11/11



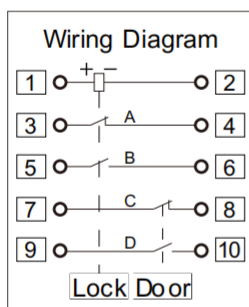
SDL-M1CAPS-11/20



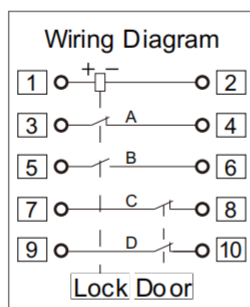
SDL-M1CAPS-20/11



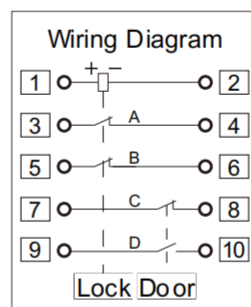
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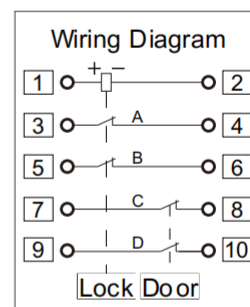
SDL-M1CAPT-11/11



SDL-M1CAPT-11/20

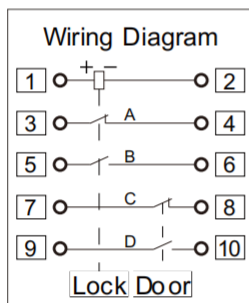


SDL-M1CAPT-20/11

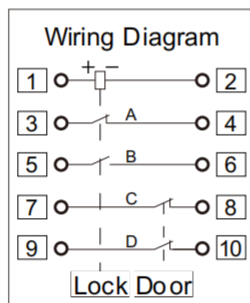


SDL-M1CAPT-20/20

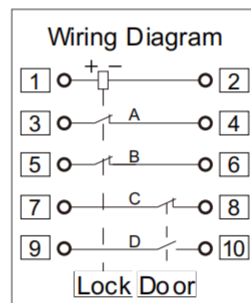
Electromagnetic lock / Off-power unlock (Diagram shows status of contact when key actuator inserted and electromagnetic locked)



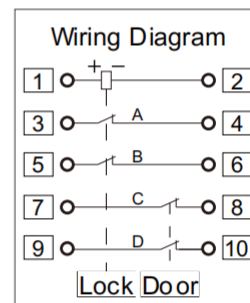
SDL-M1CGPS-11/11



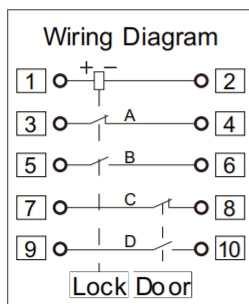
SDL-M1CGPS-11/20



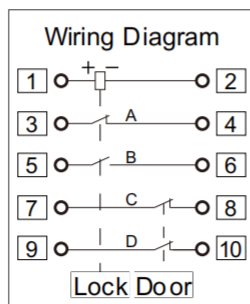
SDL-M1CGPS-20/11



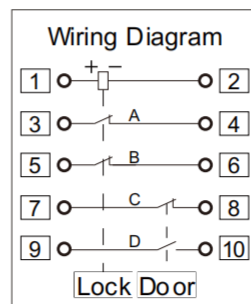
SDL-M1CGPS-20/20



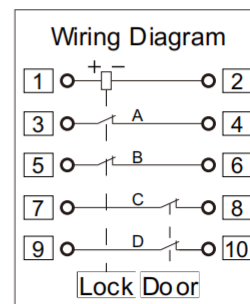
SDL-M1CGPT-11/11



SDL-M1CGPT-11/20



SDL-M1CGPT-20/11



SDL-M1CGPT-20/20

➤ Operation timing description

Type	Output		Operation timing description (■ ON / □ OFF)	Remark
	Key actuator Monitoring	Lock status Monitoring		
SDL-M1CAPS- 11/11				NC contactor conformed ISO14119 and GB/T18831 force guard interlocking structure
SDL-M1CAPT- 11/11				
SDL-M1CAPS- 11/20				NC contactor conformed ISO14119 and GB/T18831 force guard interlocking structure
SDL-M1CAPT- 11/20				
SDL-M1CAPS- 20/11				NC contactor conformed ISO14119 and GB/T18831 force guard interlocking structure
SDL-M1CAPT- 20/11				
SDL-M1CAPS- 20/20				NC contactor conformed ISO14119 and GB/T18831 force guard interlocking structure
SDL-M1CAPT- 20/20				
SDL-M1CGPS- 11/11				NC contactor conformed ISO14119 and GB/T18831 force guard interlocking structure
SDL-M1CGPT- 11/11				

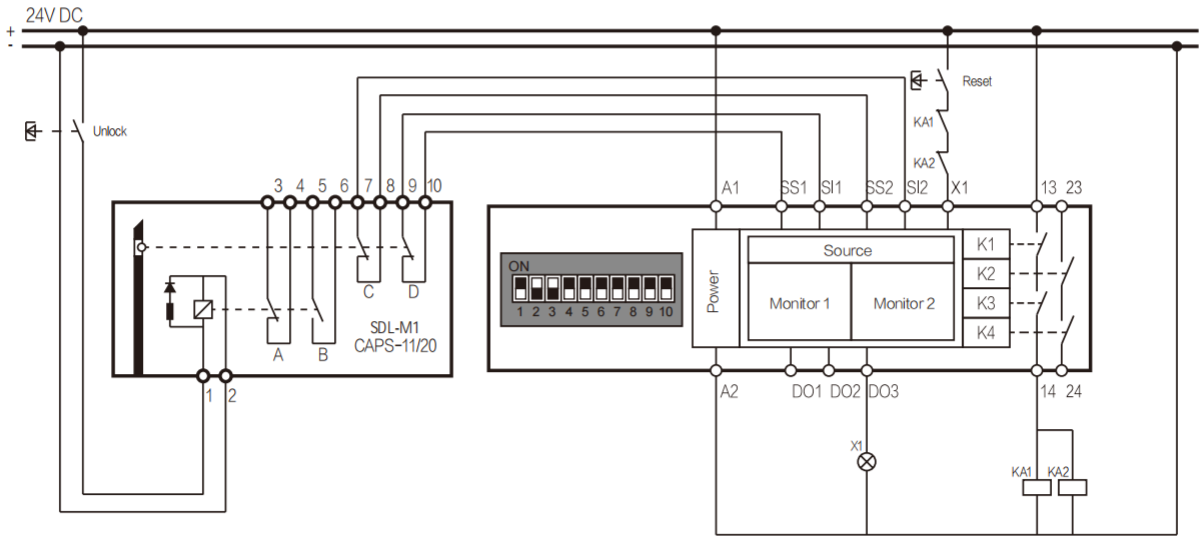
SDL-M1CGPS-11/20 SDL-M1CGPT-11/20			NC contactor conformed ISO14119 and GB/T18831 force guard interlocking structure
SDL-M1CGPS-20/11 SDL-M1CGPT-20/11			NC contactor conformed ISO14119 and GB/T18831 force guard interlocking structure
SDL-M1CGPS-20/20 SDL-M1CGPT-20/20			NC contactor conformed ISO14119 and GB/T18831 force guard interlocking structure

➤ LED indication

SDL-M1CAP□-□/□	Lock	Unlock
LED Status	OFF	ON

SDL-M1CGP□-□/□	Lock	Unlock
LED Status	ON	OFF

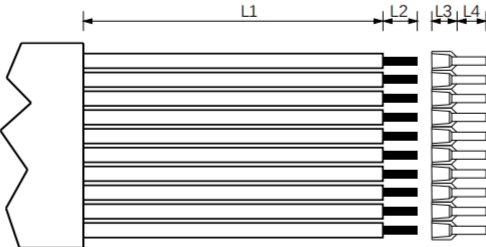
➤ Connection example



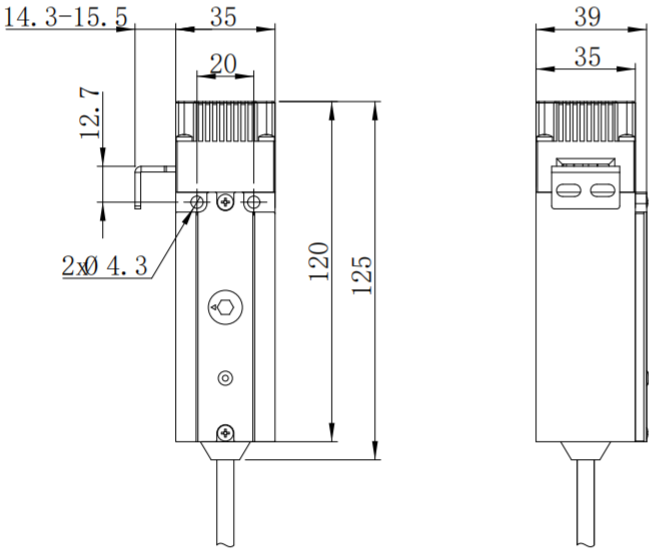
SDL-M1CAPS-11/20 working with Quanta-DN1100, manual reset

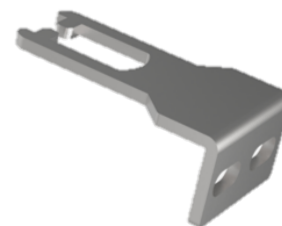
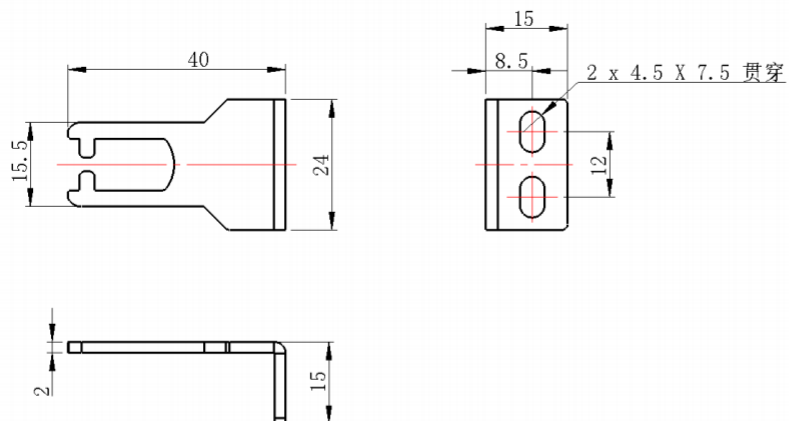
➤ Technical specification

Power	
Power supply	24V DC
Tolerance	+10%/-25%
Stabilize current	0.1A
Instantaneous current	0.85A (2s)
Stabilize power consumption	2.4W
Output	
Safety output	2NC
Signal Output	Depends on types
Switching characteristic of safety contact	
Capacitor of Contactor	AC-15: 1.5A 125VAC DC-13: 0.22A 24VDC
Contact resistor	<100mΩ
Minimum load	10mA/5V
Contact material	AgNi i+ Au
General specification	
Response time when unlocking	<8ms (from input to output)
Pull strength for key actuator when lock	1400N
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	125mm×35mm×39mm
Weight	291g
Wiring specification	

Terminal	With Cable
Wire cross-section	24 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 ISO 14119 / GBT 18831

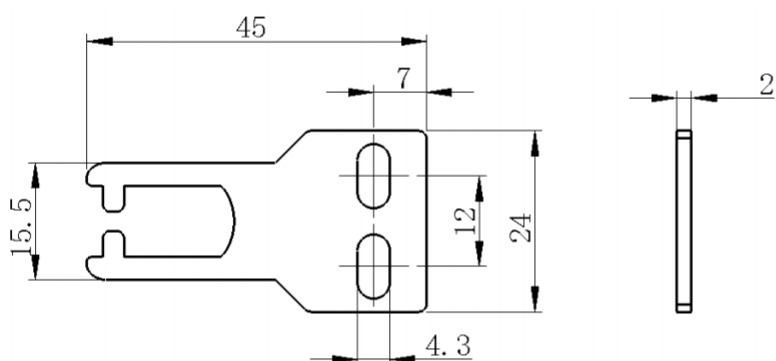
➤ Dimension

Body	SDL-M1
	
Key actuator	GUCP-01



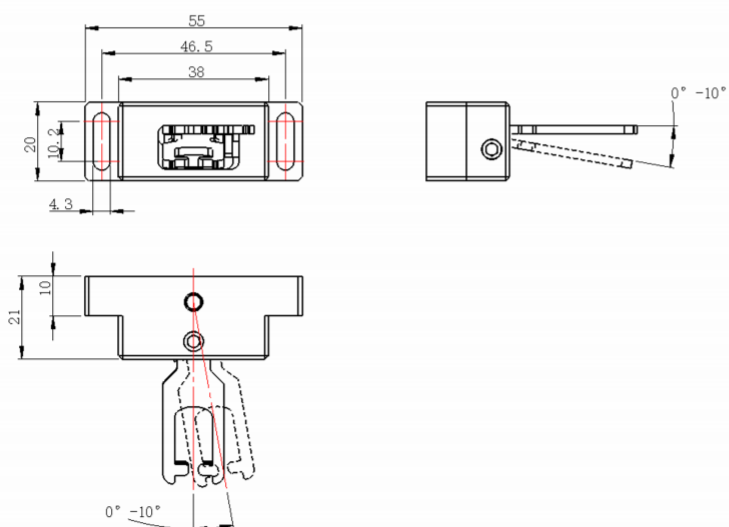
Key actuator

GUCP-02



Key actuator

GUCP-09



➤ Main Order information

Interlock body

Type	Item No.	Qty.	Lock/Unlock Type	Cable Length	Power	Lock monitoring	Key actuator monitoring
SDL-M1CAPS-11/11	01120451050	1	Mechanical lock / electromagnetic unlock	1.5m	24V DC	1NO / 1NC	1NO / 1NC
SDL-M1CAPT-11/11	01120451051	1	Mechanical lock / electromagnetic unlock	3m	24V DC	1NO / 1NC	1NO / 1NC
SDL-M1CAPS-11/20	01120451052	1	Mechanical lock / electromagnetic unlock	1.5m	24V DC	1NO / 1NC	2NC
SDL-M1CAPT-11/20	01120451053	1	Mechanical lock / electromagnetic unlock	3m	24V DC	1NO / 1NC	2NC
SDL-M1CAPS-20/11	01120451054	1	Mechanical lock / electromagnetic unlock	1.5m	24V DC	2NC	1NO / 1NC
SDL-M1CAPT-20/11	01120451055	1	Mechanical lock / electromagnetic unlock	3m	24V DC	2NC	1NO / 1NC
SDL-M1CAPS-20/20	01120451056	1	Mechanical lock / electromagnetic unlock	1.5m	24V DC	2NC	2NC
SDL-M1CAPT-20/20	01120451057	1	Mechanical lock / electromagnetic unlock	3m	24V DC	2NC	2NC
SDL-M1CGPS-11/11	01120451058	1	Electromagnetic lock / Off-power unlock	1.5m	24V DC	1NO / 1NC	1NO / 1NC
SDL-M1CGPT-11/11	01120451059	1	Electromagnetic lock / Off-power unlock	3m	24V DC	1NO / 1NC	1NO / 1NC
SDL-M1CGPS-11/20	01120451060	1	Electromagnetic lock / Off-power unlock	1.5m	24V DC	1NO / 1NC	2NC
SDL-M1CGPT-11/20	01120451061	1	Electromagnetic lock / Off-power unlock	3m	24V DC	1NO / 1NC	2NC
SDL-M1CGPS-20/11	01120451062	1	Electromagnetic lock / Off-power unlock	1.5m	24V DC	2NC	1NO / 1NC
SDL-M1CGPT-20/11	01120451063	1	Electromagnetic lock / Off-power unlock	3m	24V DC	2NC	1NO / 1NC
SDL-M1CGPS-20/20	01120451064	1	Electromagnetic lock / Off-power unlock	1.5m	24V DC	2NC	2NC
SDL-M1CGPT-20/20	01120451065	1	Electromagnetic lock / Off-power unlock	3m	24V DC	2NC	2NC

Key actuator

Type	Item No.	Qty.	Material	Function
GUCP-01	01120451001	1	SUS304 stainless	90° angle type

GUCP-02	01120401002	1	SUS304 stainless	180° Straight type
GUCP-09	01120401009	1	Hard aluminum alloy base with SUS304 stainless key	Adjustable type

➤ **Accessory Order information**

Latch complete system

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