

SLR11 Series

Safety door switch

SLR11 Safety Door Switch Introduction

Safety door switch is device used to lock and monitor the movable mechanisms such as doors of safety fences and protective covers. The SLR11 series of safety door switch uses a high-strength structural design and can withstand higher tension; it also has RFID detection technology, which has higher security and confidentiality; the sensor & label support universal coding and unique coding; small size for easy installation.

Product Feature

- Multiple function: Support locking & monitoring function.
- Multiple encoding modes: Unique coding and universal coding.
- Self-check & cross-check: Periodic double cross-check improves security.
- Independent redundant dual output: in case of hazard caused by signal loop failure.
- Small size: 29.7mm*29.7mm section size.
- Flexible installation: Directly installed on the aluminum frame less than 30mm, no need brackets.



Technical Parameter

Standard		ISO 13849-1 (Category 4/Plc) ; IEC/EN60947-5-3
Certificate		CE
Locking mode		Mechanical lock/Power to lock
Safety output		NPN*2/PNP*2
Response time	Locking→Unlocking	100ms(independent working)
	Unlocking→Locking	
Locking	Lock holding force Fzh	≥2000N
	Lock bolt insertion deviation	≤2mm
	Mechanical endurance	>one million times (door operating speed 1m/s)
	Operating frequency	1Hz
	Minimum radius of the revolving door	≥220mm
	Manual unlocking	Front□back
Cascade linking		Max 20 pieces
Control output (OSSD output)	Output type	Transistor output *2
	Maximum load current	≤200mA
	Residual voltage (when it's ON)	<2.5V@200mA
	Voltage when it's OFF	≤2V@wire cable 5m
	Leakage current	≤0.5mA
	Maximum load capacity	2.2uF
	Load connection resistance	≤2.5 Ω
AUX output (unsafe output)	Output type	Transistor output
	Output quantity	1
	Maximum load capacity	50mA
	Residual voltage (when it's ON)	≤2.5V@50mA
External input (breaking current)	Safe input	1.5mA*2
	Reset/EDM input	About10mA*1
	Locking control input	About10mA*1
	OSSD action switch input	About10mA*1
Power supply	Working voltage	DC24V±15%
	Rated power	4.6W (no load)
Protection		Safety circuit protection, current limit, overload protection, overvoltage protection, stop & restart when overheat, reverse polarity protection, transient noise protection, invalid pulse protection
Environment resistance	Housing protection level	IP65
	Operating ambient temperature	-20°C~55°C (no freezing)
	Storage temperature	-25°C~70°C (no freezing)
	Operating ambient humidity	5%~95%RH
	Ambient storage humidity	5%~95%RH
	Vibration resistance	10Hz~55Hz, double amplitude 2.0mm, 5 minutes each in X, Y and Z directions
	Shock resistance	30g 6 times each in X, Y, and Z directions
Risk time		100ms
Restart time		3.5s
Material		Nylon/zinc alloy/stainless steel

- 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

Explanation model (example: SLR11□□□□□-□)

SLR11□□□□□ - □

Cable length	3-3m、5-5m、10-10m、20-20m
Way of leading wire	C:M12 plug Non: directly lead wire
Output type	N:NPN P:PNP
Encoding mode	0:Universal encoding 1:Unique encoding
Configuration type	0:Normal type 1:Advanced type
Locking mode	0:Electromagnetic locking 1:Mechanical locking
Product series	SLR11 series safety door switch

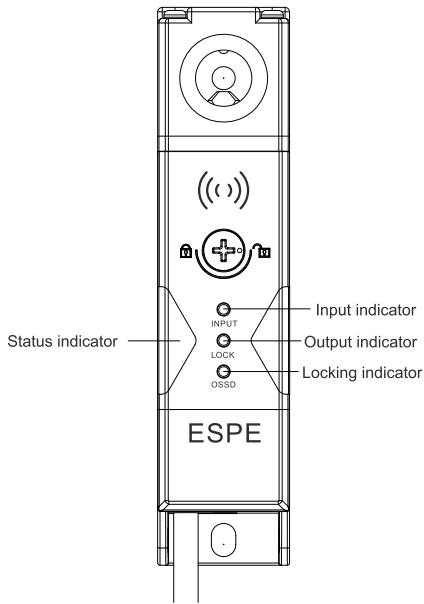
Explanation of normal type and advanced type

	Safety output channel	AUX output channel	Safety input channel	Locking input channel	EDM	Reset
Normal type	●	●	●	●	-	-
Advanced type	●	●	●	●	●	●

SLR11 series selection sheet

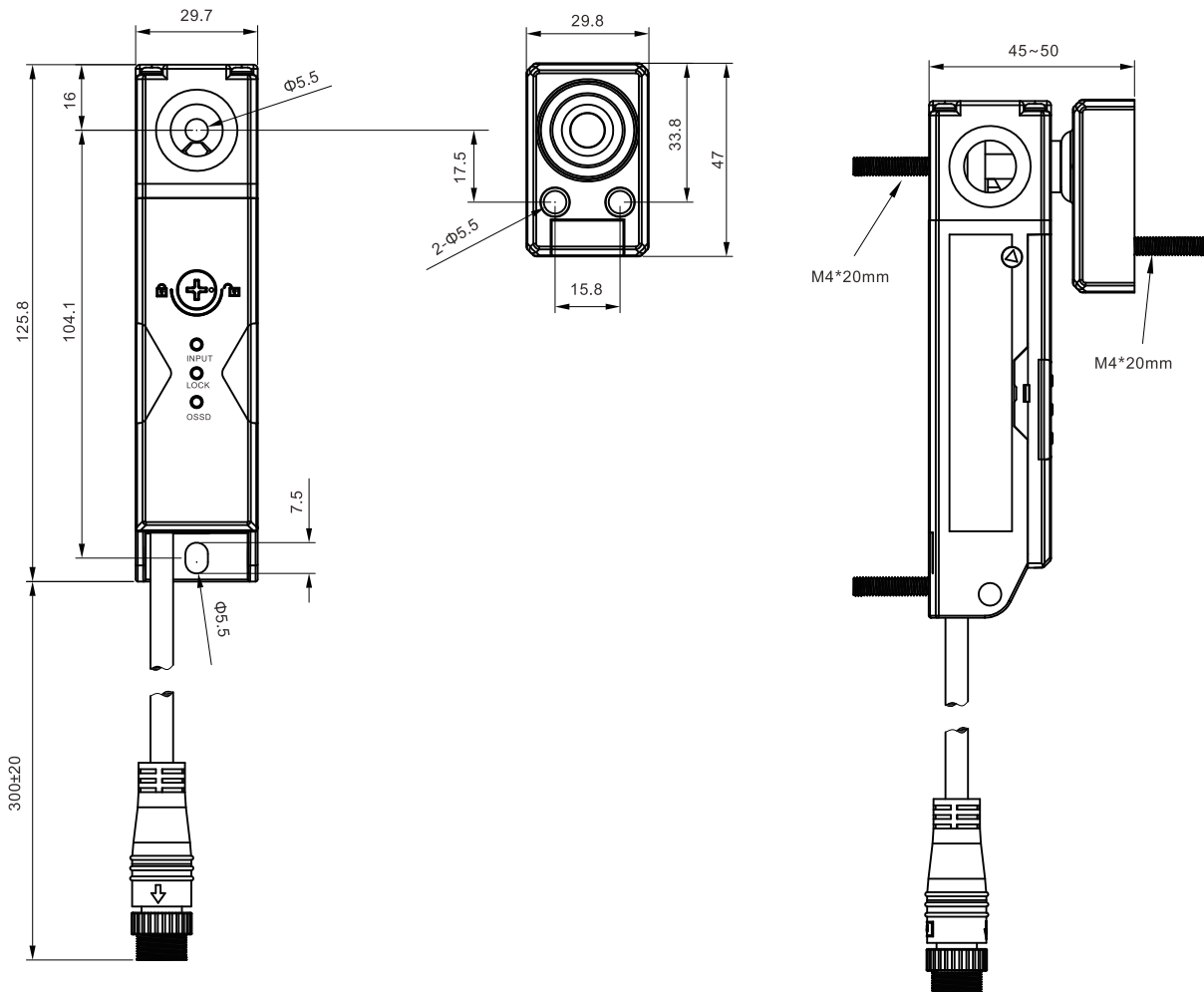
Locking mode	Configuration	Output type	Encoding mode	Model
Power to lock	Normal type	NPN	Universal encoding	SLR11-000N
		NPN	Unique encoding	SLR11-001N
		PNP	Universal encoding	SLR11-000P
		PNP	Unique encoding	SLR11-001P
	Advanced type	NPN	Universal encoding	SLR11-010N
		NPN	Unique encoding	SLR11-011N
		PNP	Universal encoding	SLR11-010P
		PNP	Unique encoding	SLR11-011P
Mechanical lock	Normal type	NPN	Universal encoding	SLR11-100N
		NPN	Unique encoding	SLR11-101N
		PNP	Universal encoding	SLR11-100P
		PNP	Unique encoding	SLR11-101P
	Advanced type	NPN	Universal encoding	SLR11-110N
		NPN	Unique encoding	SLR11-111N
		PNP	Universal encoding	SLR11-110P
		PNP	Unique encoding	SLR11-111P

Explanation of indicator



Indicator name	Color of light on	Status explanation
Output indicator	Red, green	OSSD output: green OSSD closed: red OSSD error: red flash \square 2Hz \square EDM error: red flash (1Hz)
Locking indicator	green	Switch locked: light on Switch abnormal: flash at 2Hz (electromagnet error, optocoupler error, RFID loss) None RFID: flash at 1 Hz Attempt to lock: double flashing on Attempt to unlock: double flashing off Unlocked: light off
Input indicator	orange	Normal input: light on No input (wait for input): light off Wait for RESET resetting: flash at 1Hz
Indicator of working status	Green, red, orange	Lock and with input: green light No input & no system (above 3 light excluded) error: red Voltage error: orange light flash at 1Hz Internal communication self-check error: red light flash at 2Hz Internal signal self-check error: red light flash at 1Hz Internal communication self-check error: green light flash at 2Hz

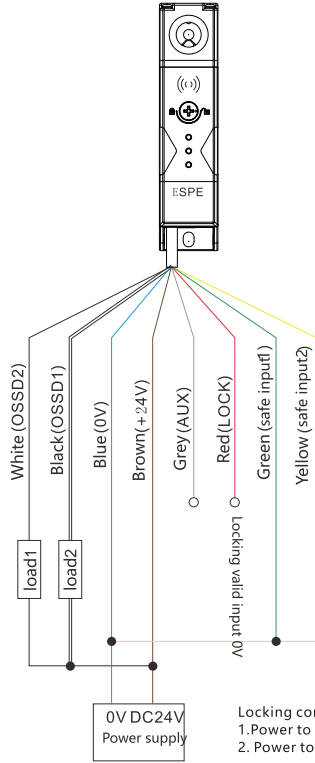
Product Size



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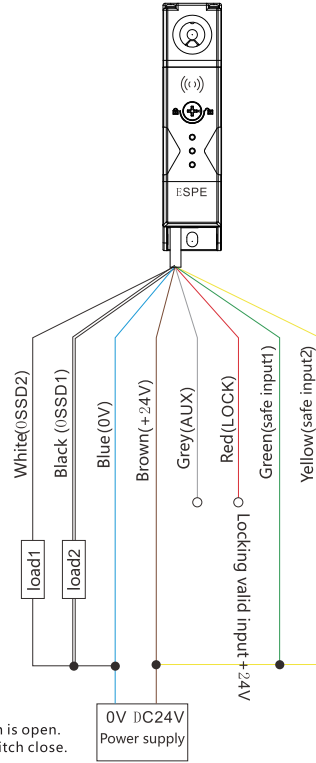
Wire diagram

SLR11 normal type(NPN, no cascade)

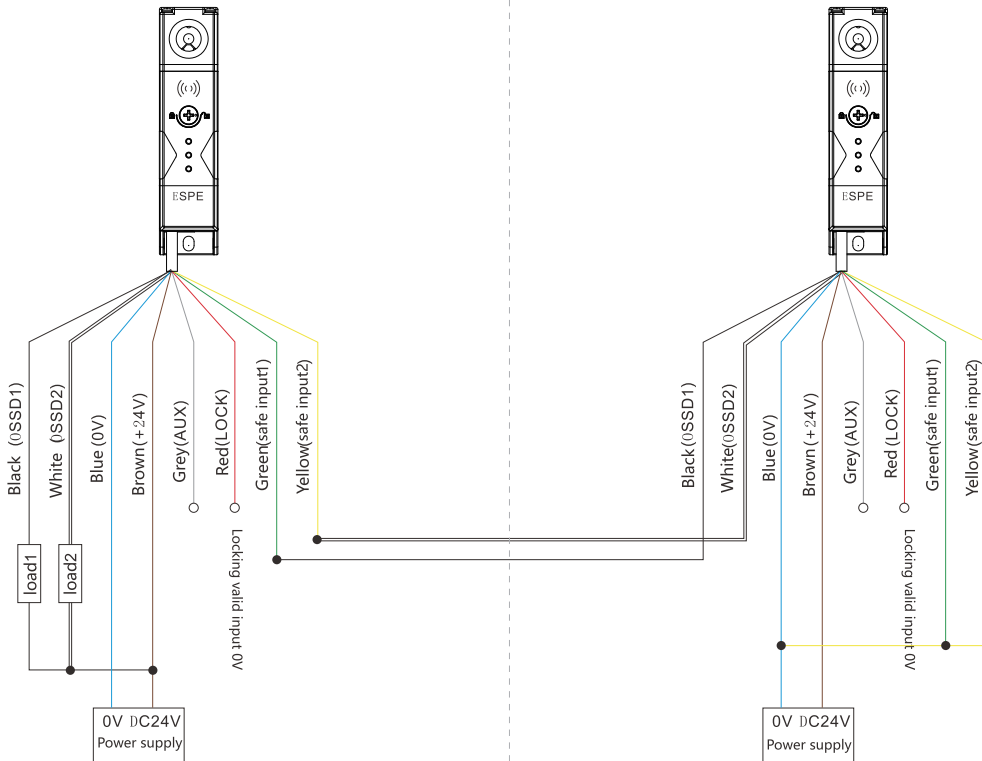


Locking control input:
 1. Power to lock: Lock when switch is close, unlock when switch is open.
 2. Power to unlock: Lock when switch is open, unlock when switch close.

SLR11 normal type(PNP, no cascade)

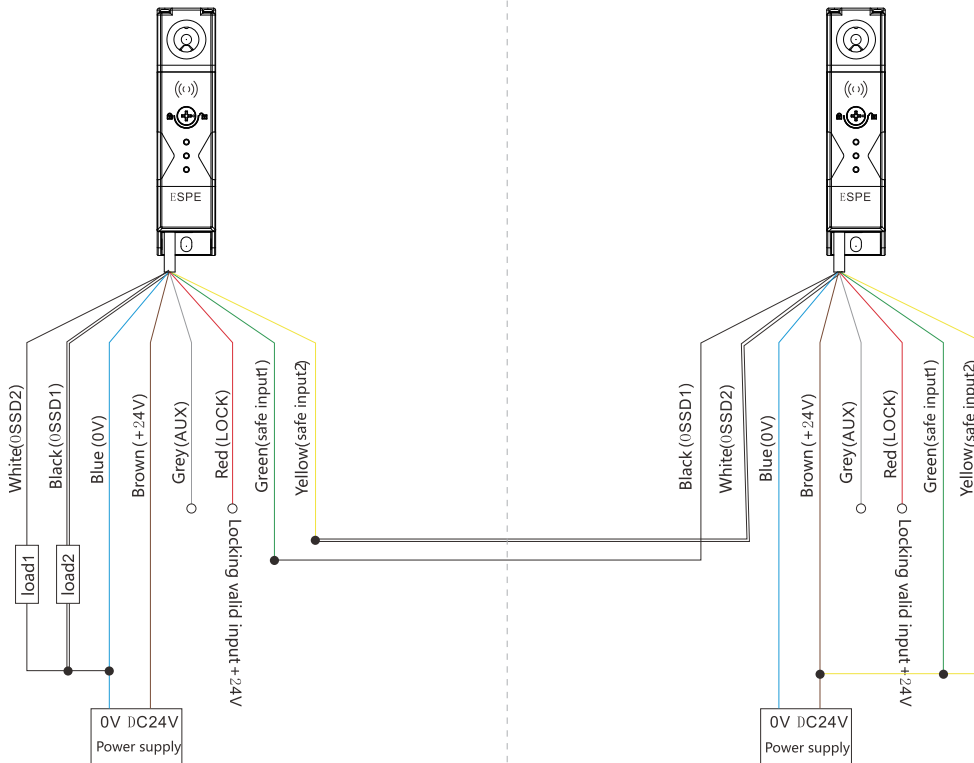


SLR11 normal type(NPN, cascade)

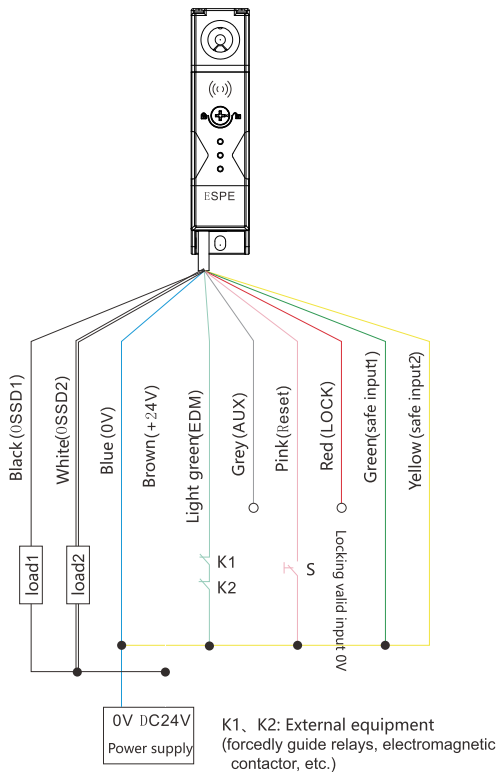


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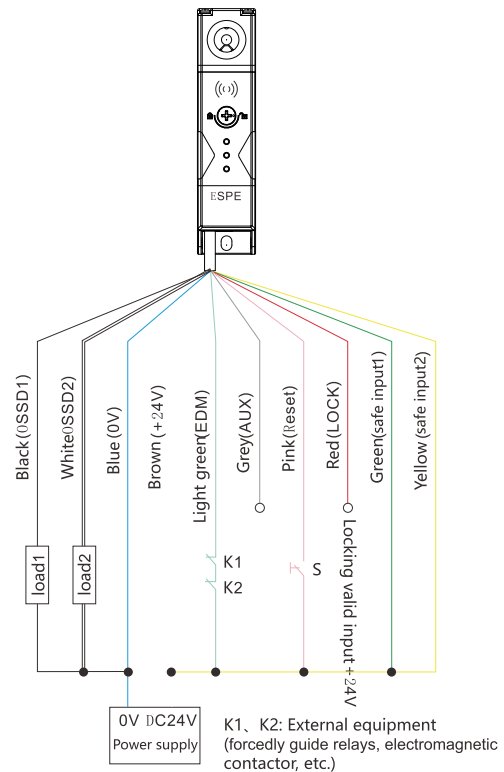
SLR11 normal type(PNP, cascade)



SLR11 advanced type(NPN, no cascade)

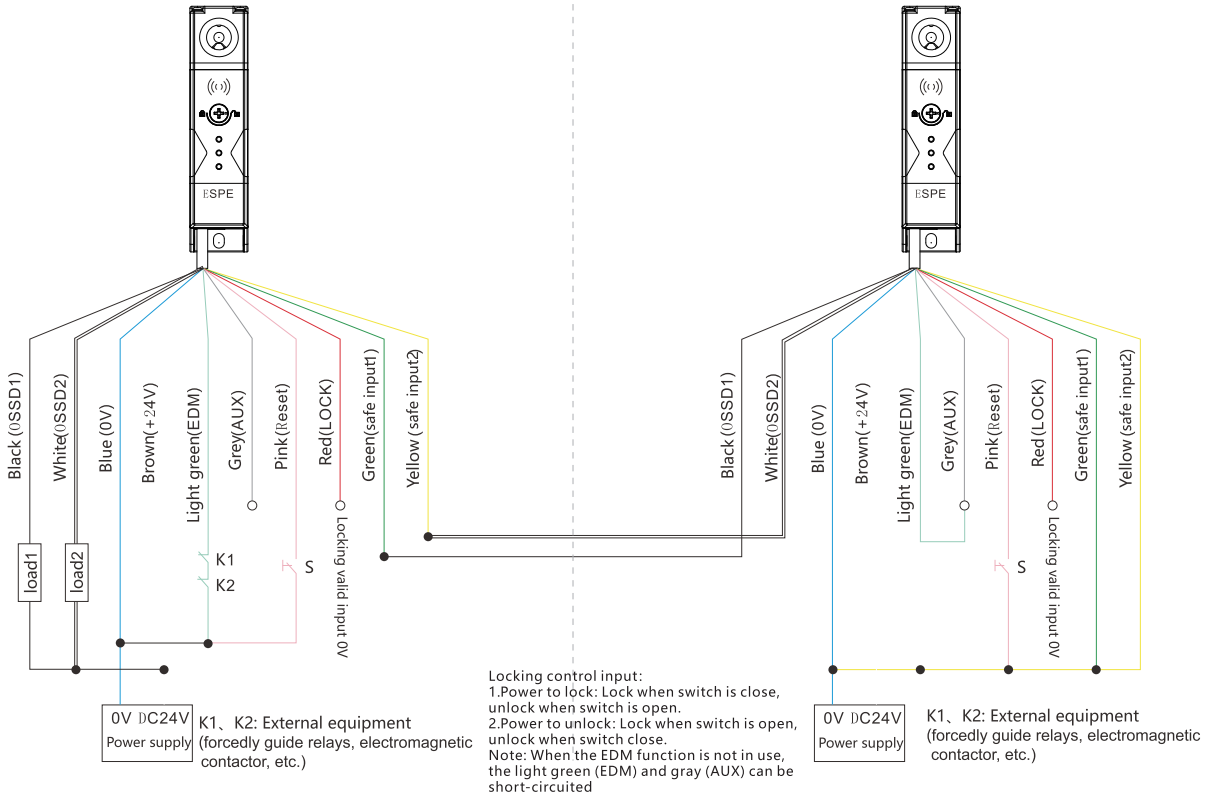


SLR11 advanced type(PNP, no cascade)



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SLR11 advanced type(NPN, cascade)



SLR11 advanced type(PNP, cascade)

