

SLM21 Series

6 Contacts Safety Door Switch



Safety protection forced lock

- EN 60947-5-1/IEC 60947-5-1
- GB/T 14048.5
- EN ISO 14119/ISO 14119
- GB/T 18831



Product introduction

SLM21 series safety door switch with multiple models for selection, adjustable inserting head and various operational key ensure a flexible installation. 1300N holding force and IP67 protection rate ensure its widely applied in different environment.

Product feature

- Multiple contacts for selection.
- Holding force 1300N.
- Ip67 protection rate.
- Various inserting direction.
- Support general load or micro-load.

Technical parameter

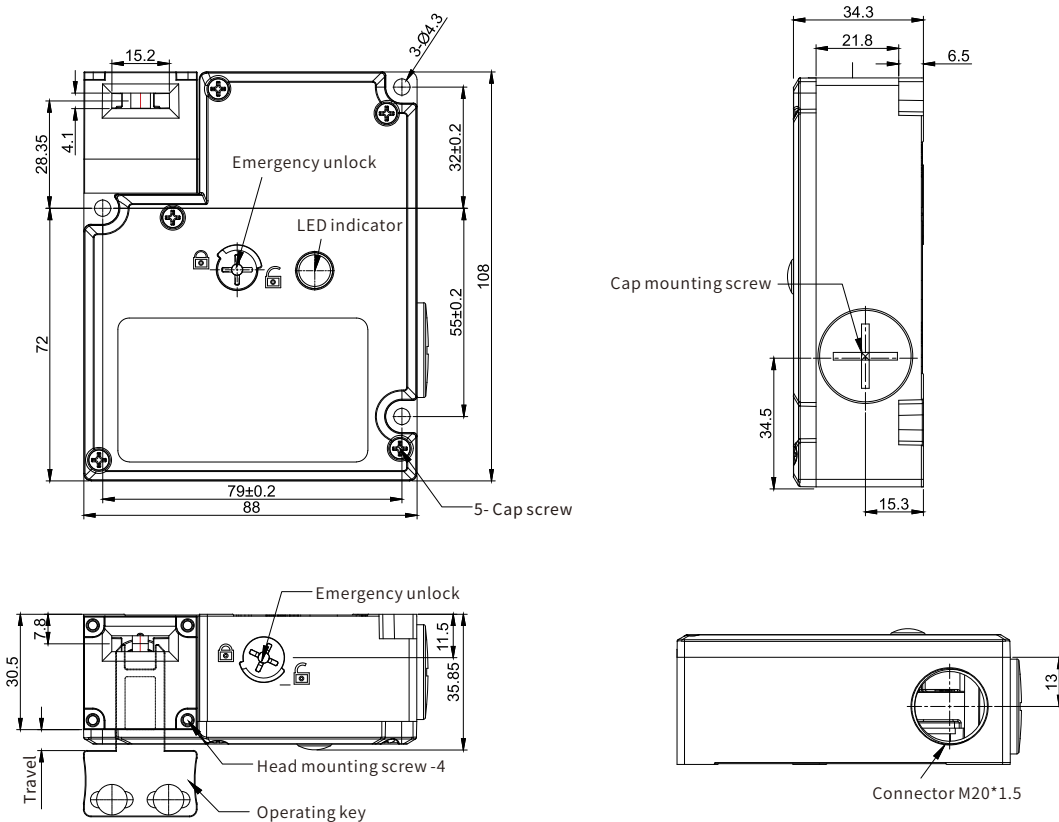
Electromagnetic tube		
Rated operating voltage	DC24V	
Power	4.8W	
Rated current	Approximate 200mA	
Insulation	Class B (130°C)	
LED indicator		
Rated operating voltage	DC24V	
Rated current	Approximate 1mA	
Luminous color (LED)	Green	
Safety level	PL d (ISO 13849-1)	
Certificates	TÜV Rheinland	
Standard	EN60947-5-1、IEC60947-5-1、GB/T 14048.5、EN ISO 14119、GB/T 18831	
Protection rate	IP67	
Material	PA66 fire retardant	
Mechanical lifespan	Over 1,000,000 times	
Electrical lifespan	Over 150.000 (AC240V 3A, resistive load)	
Using type	AC-15	DC-13
Rated operating voltage (Ue)	240V	24V
Rated operating current (Ie)	3A	2A
Electrical parameters		
Contact resistance	< 200 mΩ	
Nominal discharge current (Ith)	10A	
Rated insulation voltage (Ui)	300V	
Anti-electric shock level	Class II (Dual Insulation)	
Pulse withstand voltage (EN60947-5-1)	2.5KV	
Insulation resistance	100MΩ above	
Short-circuit protection	10A, 250V requires a quick-break fuse	
Vibration resistance	10-55Hz double amplitude 1.5mm	
Impact resistance	Durability1000m/s ²	
Conditional short-circuit current	100A (EN 60947-5-1)	
Space of contact	2×2mmabove	
Action characteristic		
Direct opening force	Min. 60N	
Direct opening travel	Over 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 (no freezing)	
Operating humidity	< 95%RH	

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Model selection (eg.: SLM21-BPMF2)

Product series	Switch contact (Door monitor + lock monitor)	Head direction/ Material	Door lock/ release method	Key inserting direction	Connector
SLM21	—	□	□	□	□
A: 1NC/1NO(Slow action) + 1NC/1NO(Slow action) B: 1NC/1NO(Slow action) + 2NC (Slow action) C: 2NC (Slow action)+ 1NC/1NO (Slow action) D: 2NC(Slow action) + 2NC(Slow action) E: 2NC/1NO(Slow action) + 1NC/1NO (Slow action) F: 2NC/1NO(Slow action) + 2NC(Slow action) G: 2NC/1NO (Slow action)+ 2NC/1NO(Slow action) H: 3NC(Slow action) + 1NC/1NO(Slow action) I: 3NC(Slow action) + 2NC(Slow action) J: 3NC (Slow action) + 3NC(Slow action) K: 3NC(Slow action) + 2NC/1NO(Slow action) L: 2NC/1NO (Slow action)+ 3NC(Slow action)		P: 4 optional directions (Default front side installation)/ plastic M: 4 optional directions (Default front side installation)/ metal	M: DC24V power to release (mechanical lock) E: DC24V power to lock	Top Front	2: M20

Product size



SLM21 model selection table

Release position	Head material	Magnetic voltage/ indicator	Lock/ Release method	Contact type (door monitor + lock monitor)	Connector size	Model
Top release	Plastic	Electromagnetic DC24V Green LED	Power to release	1NC/1NO + 1NC/1NO	M20	SLM21-APMT2
				1NC/1NO + 2NC	M20	SLM21-BPMT2
				2NC + 1NC/1NO	M20	SLM21-CPMT2
				2NC + 2NC	M20	SLM21-DPMT2
				2NC/1NO + 1NC/1NO	M20	SLM21-EPMT2
				2NC/1NO + 2NC	M20	SLM21-FPMT2
				2NC/1NO + 2NC/1NO	M20	SLM21-GPMT2
				3NC + 1NC/1NO	M20	SLM21-HPMT2
				3NC + 2NC	M20	SLM21-IPMT2
				3NC + 3NC	M20	SLM21-JPMT2
				3NC + 2NC/1NO	M20	SLM21-KPMT2
				2NC/1NO + 3NC	M20	SLM21-LPMT2
			Power to lock	1NC/1NO + 1NC/1NO	M20	SLM21-APET2
				1NC/1NO + 2NC	M20	SLM21-BPET2
				2NC + 1NC/1NO	M20	SLM21-CPET2
				2NC + 2NC	M20	SLM21-DPET2
				2NC/1NO + 1NC/1NO	M20	SLM21-EPET2
				2NC/1NO + 2NC	M20	SLM21-FPET2
				2NC/1NO + 2NC/1NO	M20	SLM21-GPET2
				3NC + 1NC/1NO	M20	SLM21-HPET2
				3NC + 2NC	M20	SLM21-IPET2
				3NC + 3NC	M20	SLM21-JPET2
				3NC + 2NC/1NO	M20	SLM21-KPET2
				2NC/1NO + 3NC	M20	SLM21-LPET2
	Metal	Electromagnetic DC24V Green LED	Power to release	1NC/1NO + 1NC/1NO	M20	SLM21-AMMT2
				1NC/1NO + 2NC	M20	SLM21-BMMT2
				2NC + 1NC/1NO	M20	SLM21-CMMT2
				2NC + 2NC	M20	SLM21-DMMT2
				2NC/1NO + 1NC/1NO	M20	SLM21-EMMT2
				2NC/1NO + 2NC	M20	SLM21-FMMT2
				2NC/1NO + 2NC/1NO	M20	SLM21-GMMT2
				3NC + 1NC/1NO	M20	SLM21-HMMT2
				3NC + 2NC	M20	SLM21-IMMT2
				3NC + 3NC	M20	SLM21-JMMT2
				3NC + 2NC/1NO	M20	SLM21-KMMT2
				2NC/1NO + 3NC	M20	SLM21-LMMT2
			Power to lock	1NC/1NO + 1NC/1NO	M20	SLM21-AMET2
				1NC/1NO + 2NC	M20	SLM21-BMET2
				2NC + 1NC/1NO	M20	SLM21-CMET2
				2NC + 2NC	M20	SLM21-DMET2
				2NC/1NO + 1NC/1NO	M20	SLM21-EMET2
				2NC/1NO + 2NC	M20	SLM21-FMET2
				2NC/1NO + 2NC/1NO	M20	SLM21-GMET2
				3NC + 1NC/1NO	M20	SLM21-HMET2
				3NC + 2NC	M20	SLM21-IMET2
				3NC + 3NC	M20	SLM21-JMET2
				3NC + 2NC/1NO	M20	SLM21-KMET2
				2NC/1NO + 3NC	M20	SLM21-LMET2

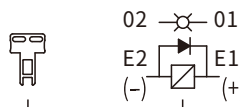
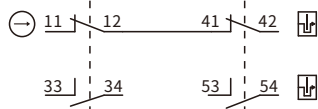
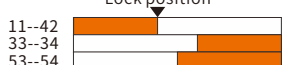
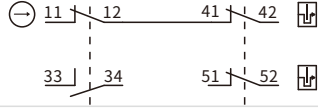
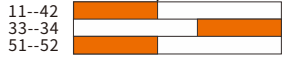
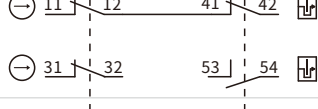
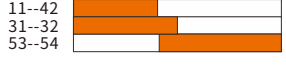
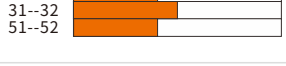
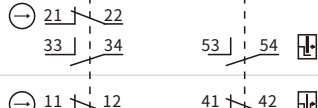
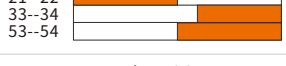
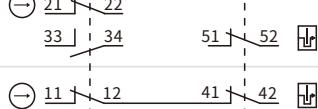
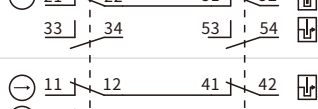
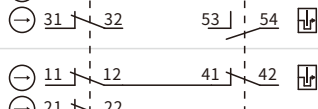
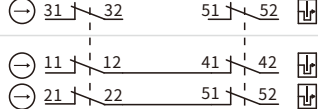
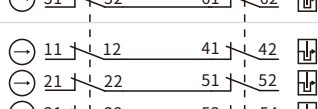
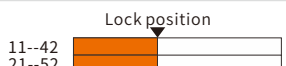
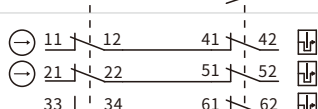
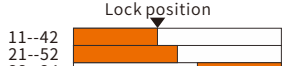
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SLM21 model selection table

Release position	Head material	Magnetic voltage/ indicator	Lock/ Release method	Contact type (door monitor + lock monitor)	Connector size	Model
Front release	Plastic	Electromagnetic DC24V Green LED	Power to release	1NC/1NO + 1NC/1NO	M20	SLM21-APMF2
				1NC/1NO + 2NC	M20	SLM21-BPMF2
				2NC + 1NC/1NO	M20	SLM21-CPMF2
				2NC + 2NC	M20	SLM21-DPMF2
				2NC/1NO + 1NC/1NO	M20	SLM21-EPMF2
				2NC/1NO + 2NC	M20	SLM21-FPMF2
				2NC/1NO + 2NC/1NO	M20	SLM21-GPMF2
				3NC + 1NC/1NO	M20	SLM21-HPMF2
				3NC + 2NC	M20	SLM21-IPMF2
				3NC + 3NC	M20	SLM21-JPMF2
				3NC + 2NC/1NO	M20	SLM21-KPMF2
				2NC/1NO + 3NC	M20	SLM21-LPMF2
			Power to lock	1NC/1NO + 1NC/1NO	M20	SLM21-APEF2
				1NC/1NO + 2NC	M20	SLM21-BPEF2
				2NC + 1NC/1NO	M20	SLM21-CPEF2
				2NC + 2NC	M20	SLM21-DPEF2
				2NC/1NO + 1NC/1NO	M20	SLM21-EPEF2
				2NC/1NO + 2NC	M20	SLM21-FPEF2
				2NC/1NO + 2NC/1NO	M20	SLM21-GPEF2
				3NC + 1NC/1NO	M20	SLM21-HPEF2
				3NC + 2NC	M20	SLM21-IPEF2
				3NC + 3NC	M20	SLM21-JPEF2
				3NC + 2NC/1NO	M20	SLM21-KPEF2
				2NC/1NO + 3NC	M20	SLM21-LPEF2
	Metal	Electromagnetic DC24V Green LED	Power to release	1NC/1NO + 1NC/1NO	M20	SLM21-AMMF2
				1NC/1NO + 2NC	M20	SLM21-BMMF2
				2NC + 1NC/1NO	M20	SLM21-CMMF2
				2NC + 2NC	M20	SLM21-DMMF2
				2NC/1NO + 1NC/1NO	M20	SLM21-EMMF2
				2NC/1NO + 2NC	M20	SLM21-FMMF2
				2NC/1NO + 2NC/1NO	M20	SLM21-GMMF2
				3NC + 1NC/1NO	M20	SLM21-HMMF2
				3NC + 2NC	M20	SLM21-IMMF2
				3NC + 3NC	M20	SLM21-JMMF2
				3NC + 2NC/1NO	M20	SLM21-KMMF2
				2NC/1NO + 3NC	M20	SLM21-LMMF2
			Power to lock	1NC/1NO + 1NC/1NO	M20	SLM21-AMEF2
				1NC/1NO + 2NC	M20	SLM21-BMEF2
				2NC + 1NC/1NO	M20	SLM21-CMEF2
				2NC + 2NC	M20	SLM21-DMEF2
				2NC/1NO + 1NC/1NO	M20	SLM21-EMEF2
				2NC/1NO + 2NC	M20	SLM21-FMEF2
				2NC/1NO + 2NC/1NO	M20	SLM21-GMEF2
				3NC + 1NC/1NO	M20	SLM21-HMEF2
				3NC + 2NC	M20	SLM21-IMEF2
				3NC + 3NC	M20	SLM21-JMEF2
				3NC + 2NC/1NO	M20	SLM21-KMEF2
				2NC/1NO + 3NC	M20	SLM21-LMEF2

Contacts action

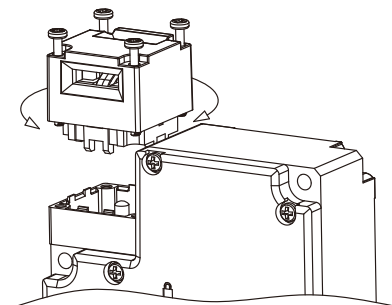
Below wire diagram for switch with key inserts & lock status. (Terminal 12 & 41, 22 & 51, 32 & 61 is inside connection)

Model	Contact (door minitor+ lock monitor)	Wire diagram		Contact action  Contact ON  Contact OFF
		door monitor	lock monitor	
				Operation key complete insertion → Travel → Operation key extraction 
SLM21 - AP□□□ SLM21 - AM□□□	1NC/1NO + 1NC/1NO			Lock position 
SLM21 - BP□□□ SLM21 - BM□□□	1NC/1NO + 2NC			Lock position 
SLM21 - CP□□□ SLM21 - CM□□□	2NC + 1NC/1NO			Lock position 
SLM21 - DP□□□ SLM21 - DM□□□	2NC + 2NC			Lock position 
SLM21 - EP□□□ SLM21 - EM□□□	2NC/1NO + 1NC/1NO			Lock position 
SLM21 - FP□□□ SLM21 - FM□□□	2NC/1NO + 2NC			Lock position 
SLM21 - GP□□□ SLM21 - GM□□□	2NC/1NO + 2NC/1NO			Lock position 
SLM21 - HP□□□ SLM21 - HM□□□	3NC + 1NC/1NO			Lock position 
SLM21 - IP□□□ SLM21 - IM□□□	3NC + 2NC			Lock position 
SLM21 - JP□□□ SLM21 - JM□□□	3NC + 3NC			Lock position 
SLM21 - KP□□□ SLM21 - KM□□□	3NC + 2NC/1NO			Lock position 
SLM21 - LP□□□ SLM21 - LM□□□	2NC/1NO + 3NC			Lock position 

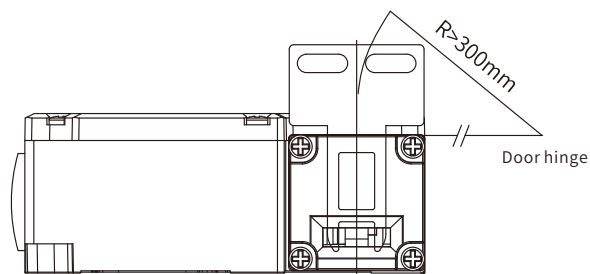
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✂ Product installation

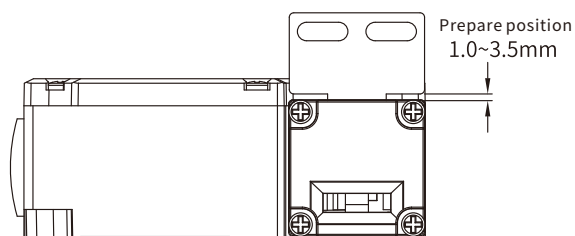
- ★ Loosen 4 screw on top of head, rotate the head to the right key inserting position and then install it.



- ★ When install on slide hung door, it should be over than semidiameter.



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



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

