

World's smallest Class 6-contact Guard Lock Safety-door Switch



<Guard Lock Safety-door Switch D4SL-N>

- Wiring time is reduced with two types of wiring methods capable of one-touch attachment and removal.
- A wide variety of built-in switches can be used for various devices.
(4-, 5-, and 6-contact models are available)
- Key holding force of 1,300 N.
- It is possible to change the key insertion point without detaching the head.
- Significantly reduced solenoid current contributes to the reduction of power supply cost.

Guard Lock Safety-door Switch



Terminal Block Type

Connector Type



Slide Key

<Slide Key D4SL-NSK10-LK□>

- Lockout Key to prevent workers from becoming trapped inside the hazardous area.
- The vertical D4SL Guard Lock Safety-door Switch can be easily mounted on 40 × 40 mm aluminum frames.
- The plastic material makes the Slide Key suitable for lightweight doors.



Be sure to read the "Safety Precautions" on page 22.

Model Number Structure

Model Number Legend

Switch (Standard type)

D4SL-N (1) (2) (3) (4) - (5) (6) (7)

(1) Conduit Size

Contact Model	Conduit Size
4-contact Model 5-contact Model 6-contact Model	Common 2: G1/2 3: 1/2-14NPT *1 4: M20

(2) Built-in Switch

Contact Model	Built-in Switch
4-contact Model	Door monitor and Lock monitor are connected in series internally. A: 1NC/1NO + 1NC/1NO B: 1NC/1NO + 2NC C: 2NC + 1NC/1NO D: 2NC + 2NC Door monitor and Lock monitor are NOT connected in series internally. S: 1NC/1NO + 1NC/1NO T: 1NC/1NO + 2NC U: 2NC + 1NC/1NO V: 2NC + 2NC
5-contact Model	E: 2NC/1NO + 1NC/1NO F: 2NC/1NO + 2NC G: 3NC + 1NC/1NO H: 3NC + 2NC
6-contact Model	N: 2NC/1NO + 2NC/1NO P: 2NC/1NO + 3NC Q: 3NC + 2NC/1NO R: 3NC + 3NC

(3) Head Material

Contact Model	Head Material
4-contact Model	F: Resin
5-contact Model 6-contact Model	Common F: Resin D: Metal

*1. M20, includes M20-to-1/2-14NPT conversion adapter.
*2. Connector cables are not included with the connector type and are to be purchased separately.

Operation key

D4SL-NK (1) (2)

(1) Operation Key Type

- 1: Horizontal mounting
- 2: Vertical mounting
- 3: Adjustable mounting (horizontal)

(2) Key Type

- : No cushion rubber
- G: Cushion rubber
- S: No cushion rubber, short type

(4) Door Lock and Release

Contact Model	Door Lock and Release
4-contact Model 5-contact Model 6-contact Model	Common A: Mechanical lock/24VDC solenoid release G: 24VDC solenoid lock/mechanical release

(5) Indicator

Contact Model	Indicator
4-contact Model	-: None
5-contact Model 6-contact Model	Common D: 24VDC (orange LED indicator)

(6) Release Key Type

Contact Model	Release Key Type
4-contact Model	-: Standard release key (metal)
5-contact Model 6-contact Model	Common -: Standard release key (metal) 4: Special release key (resin) (Note:Release keys are provided.)

(7) Connection Method

Contact Model	Connection Method
4-contact Model 5-contact Model 6-contact Model	Common -: Terminal block N: Connector *2

Ordering Information

List of Models

Release Key Type	Wiring method	Solenoid voltage/ Indicator	Lock and release type	Contact configuration (door open/closed detection switch and lock monitor switch contacts)	Conduit size (See Note.)	Model			
Standard (metal) 	Connector	24VDC (Orange)	Mechanical lock Solenoid release	6-contact Model Insert the built-in switch (N, P, Q or R) into the blank □.	G1/2	D4SL-N2□FA-DN			
					1/2-14NPT	D4SL-N3□FA-DN			
					M20	D4SL-N4□FA-DN			
				5-contact Model Insert the built-in switch (E, F, G or H) into the blank □.	G1/2	D4SL-N2□FA-DN			
					1/2-14NPT	D4SL-N3□FA-DN			
					M20	D4SL-N4□FA-DN			
		24VDC (without indicator)		4-contact Model Insert the built-in switch (A, B, C, D, S, T, U or V) into the blank □.	G1/2	D4SL-N2□FA-N			
					1/2-14NPT	D4SL-N3□FA-N			
					M20	D4SL-N4□FA-N			
				Terminal block	24VDC (Orange)	6-contact Model Insert the built-in switch (N, P, Q or R) into the blank □.	G1/2	D4SL-N2□FA-D	
							1/2-14NPT	D4SL-N3□FA-D	
							M20	D4SL-N4□FA-D	
	5-contact Model Insert the built-in switch (E, F, G or H) into the blank □.	G1/2				D4SL-N2□FA-D			
		1/2-14NPT				D4SL-N3□FA-D			
		M20				D4SL-N4□FA-D			
	24VDC (without indicator)	4-contact Model Insert the built-in switch (A, B, C, D, S, T, U or V) into the blank □.			G1/2	D4SL-N2□FA			
					1/2-14NPT	D4SL-N3□FA			
					M20	D4SL-N4□FA			
		Connector			24VDC (Orange)	Solenoid lock Mechanical release	6-contact Model Insert the built-in switch (N, P, Q or R) into the blank □.	G1/2	D4SL-N2□FG-DN
								1/2-14NPT	D4SL-N3□FG-DN
								M20	D4SL-N4□FG-DN
	5-contact Model Insert the built-in switch (E, F, G or H) into the blank □.			G1/2			D4SL-N2□FG-DN		
				1/2-14NPT			D4SL-N3□FG-DN		
				M20			D4SL-N4□FG-DN		
	24VDC (without indicator)		4-contact Model Insert the built-in switch (A, B, C, D, S, T, U or V) into the blank □.	G1/2	D4SL-N2□FG-N				
				1/2-14NPT	D4SL-N3□FG-N				
				M20	D4SL-N4□FG-N				
			Terminal block	24VDC (Orange)	6-contact Model Insert the built-in switch (N, P, Q or R) into the blank □.		G1/2	D4SL-N2□FG-D	
							1/2-14NPT	D4SL-N3□FG-D	
							M20	D4SL-N4□FG-D	
	5-contact Model Insert the built-in switch (E, F, G or H) into the blank □.				G1/2		D4SL-N2□FG-D		
					1/2-14NPT		D4SL-N3□FG-D		
					M20		D4SL-N4□FG-D		
	24VDC (without indicator)			4-contact Model Insert the built-in switch (A, B, C, D, S, T, U or V) into the blank □.	G1/2		D4SL-N2□FG		
					1/2-14NPT		D4SL-N3□FG		
					M20		D4SL-N4□FG		

Note: The recommended models for equipment and machinery being exported to Europe are those with an M20 conduit sizes, and for North America, the recommended models are those with a 1/2-14NPT conduit sizes.

D4SL-N / D4SL-NSK10-LK□

Release Key Type	Wiring method	Solenoid voltage/ Indicator	Lock and release type	Contact configuration (door open/closed detection switch and lock monitor switch contacts)	Conduit size (See Note.)	Model	
Special (resin) 	Connector	24VDC (Orange)	Mechanical lock Solenoid release	6-contact Model Insert the built-in switch (N, P, Q or R) into the blank □.	G1/2	D4SL-N2□FA-D4N	
					1/2-14NPT	D4SL-N3□FA-D4N	
					M20	D4SL-N4□FA-D4N	
				Terminal block	5-contact Model Insert the built-in switch (E, F, G or H) into the blank □.	G1/2	D4SL-N2□FA-D4N
						1/2-14NPT	D4SL-N3□FA-D4N
						M20	D4SL-N4□FA-D4N
	Terminal block		6-contact Model Insert the built-in switch (N, P, Q or R) into the blank □.		G1/2	D4SL-N2□FA-D4	
					1/2-14NPT	D4SL-N3□FA-D4	
					M20	D4SL-N4□FA-D4	
			Terminal block	5-contact Model Insert the built-in switch (E, F, G or H) into the blank □.	G1/2	D4SL-N2□FA-D4	
					1/2-14NPT	D4SL-N3□FA-D4	
					M20	D4SL-N4□FA-D4	
	Connector	Solenoid lock Mechanical release		6-contact Model Insert the built-in switch (N, P, Q or R) into the blank □.	G1/2	D4SL-N2□FG-D4N	
					1/2-14NPT	D4SL-N3□FG-D4N	
					M20	D4SL-N4□FG-D4N	
			Terminal block	5-contact Model Insert the built-in switch (E, F, G or H) into the blank □.	G1/2	D4SL-N2□FG-D4N	
					1/2-14NPT	D4SL-N3□FG-D4N	
					M20	D4SL-N4□FG-D4N	
Terminal block	6-contact Model Insert the built-in switch (N, P, Q or R) into the blank □.			G1/2	D4SL-N2□FG-D4		
				1/2-14NPT	D4SL-N3□FG-D4		
				M20	D4SL-N4□FG-D4		
	Terminal block		5-contact Model Insert the built-in switch (E, F, G or H) into the blank □.	G1/2	D4SL-N2□FG-D4		
				1/2-14NPT	D4SL-N3□FG-D4		
				M20	D4SL-N4□FG-D4		

Note: The recommended models for equipment and machinery being exported to Europe are those with an M20 conduit sizes, and for North America, the recommended models are those with a 1/2-14NPT conduit sizes.

Operation Keys

Type		Model
Horizontal mounting		D4SL-NK1
Horizontal mounting (Short)		D4SL-NK1S
Horizontal mounting (Cushion rubber)		D4SL-NK1G
Vertical mounting		D4SL-NK2
Vertical mounting (Cushion rubber)		D4SL-NK2G
Adjustable (Horizontal)		D4SL-NK3

Connector Cables

Cable length	Model
1 m	D4SL-CN1
3 m	D4SL-CN3
5 m	D4SL-CN5