

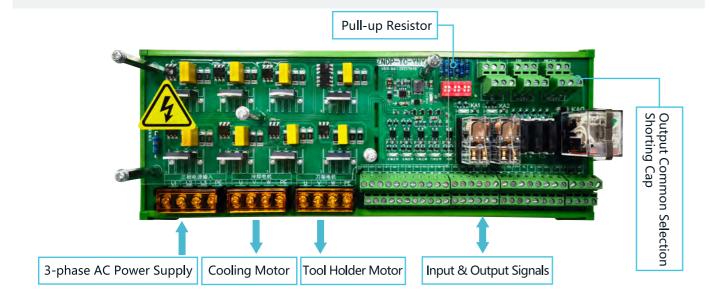
INTELLIGENT SWITCHBOARD

SAFETY DOOR SWITCH



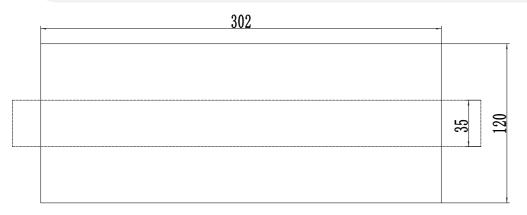
ECONOMIC ZNDP-TC-YNYJ FEATURES IN BRIEF

- 1 Highly integrated and reliable;
- 2. Control signal high and low level common;



- Pull-up resistor description
- The tool position signal is connected to a 2K 1/2W pull-up resistor inside the board, and the tool position signal is active low.
- Short Circuit Cap Description
- When the short circuit cap is shorted to COM and 0V, the output signal +24V is valid. When the short circuit cap is shorted to COM and +24V, the output signal 0V is valid.
- Description

nstallation Dimensions The mounting of the Switchboard is 35mm U-type snap rail with the size of 302*120mm.



PRODUCT OVERVIEW

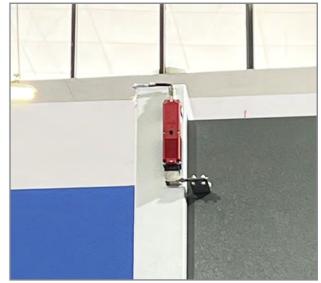
Safety door switches are used to detect the opening and closing status of doors, and are used in equipment, assembly lines, and specific job A device that meets specific safety requirements for the premises and is a standard accessory in CNC machine tools.



FEATURES IN BRIEF

- ♦ 1. Dual choice of metal head and plastic or metal housing to ensure overall strength and improve reliability
- 2. Cable outlet direction adjustable, metal head allows four directions of adjustment, providing five kinds of plug options
- ♦ 3. Provide manual unlocking and allow manual unlocking in case of emergencies
- 4. Quick and easy installation, high flexibility and compatibility
- 5. Hazards and risks to personnel can be reduced







SAFETY DOOR SWITCH SS/E-01A

SAFETY DOOR SWITCH SS/E-01A



■ FEATURE DESCRIPTION

- Metal switch head for 4-way adjustment
- Five plug types optional
- With manual unlocking mechanism
- Outlet method in 3 directions optional

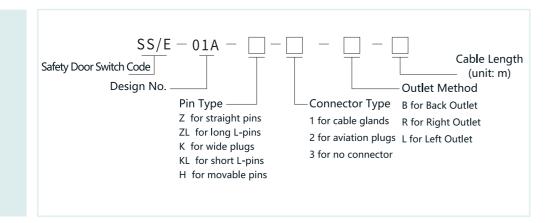


LOCKING METHOD

MODEL DESCRIPTION



Energized Unlocking



DYNAMIC ACTION AND CIRCUIT DIAGRAM

	State 1	State 2	State 3	State 4	Manual unlock state
Action State	Door ClosedEquipment runningCoil power off	Door ClosedEquipment stopsCoil power on	Door OpenedEquipment stopsCoil power off after 2S delay	Door OpenedEquipment stopsCoil power off	Equipment stops Coil power off
Safety door status diagram					
Contact Status Diagram	E1 E2 RI 21 22 R2 11 12	© E1 E2 E2 [2] 11 12	E1 E2 [2] 22 [2] 11 12	E1 E2 [2] 22 [2] 11 12	E1 E2 E2 E11 12

CONTACT CAPACITY

	Rated Voltage			250V
Ra	1	Resistive load(AC-12)	_	4A
	Rated	Inductive load(AC-15)	_	2A
Curr	Current	Resistive load(DC-12)	2A	0.8A
ent		Inductive loads(DC-13)	1A	0.4A

SOLENOID COIL

Rated voltage	DC24V	+10% -15%
Rated current	0.4A	
Insulation class	Level B	

PERFORMANCE SPECIFICATIONS

Production standard	T/SDMTGM0007-2020	
Operating environment	Better than pollution level 3	
Ambient temperature	-5~40°C	
Relative humidity	45~80%	
Protection class	IP67 (without induction port)	
Mechanical service life	Not less than 1 million times	
	Not less than 100,000 cycles(AC-12 250V 4A)	
Electrical service life	Not less than 1 million times(24V AC/DC 100mA)	
Tensile strength	2000N	

PLUG

Coding	Z	ZL	К	KL	Н
Name	Straight pin	Long L-pin	Wide Pin	Short L-pin	Movable pin
Sizes				31.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3	
Contour				A.	

OUTLET CONNECTOR TYPE

Connector Type	Photo	Connector Type Internal Terminals	Wiring Diagram
1.Cable waterproof connector		Co.	HIGHTY 10
2. Aviation plug			ADDITE MARTE
3. No connector	The state of the s		// 11 12 12 12 12 12 12 12 12 12 12 12 12



SAFETY DOOR SWITCHSS/E-01B

SAFETY DOOR SWITCHSS/E-01B



FEATURE DESCRIPTION

- Metal switch head for 4-way adjustment
- Five plug types optional
- With manual unlocking mechanism
- ◆ Increase the number of contact groups to 4 groups
- Outlet method in 3 directions optional



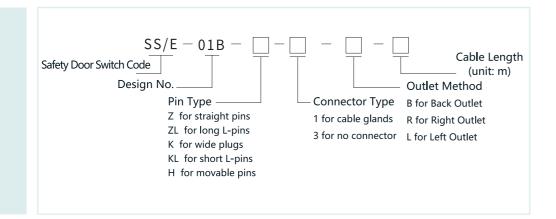
LOCKING METHOD

■ MODEL DESCRIPTION



Energized Unlocking

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DYNAMIC ACTION AND CIRCUIT DIAGRAM

	State 1	State 2	State 3	State 4	Manual unlock state
Action State	Door ClosedEquipment runningCoil power off	Door ClosedEquipment can't startCoil power on	Door OpenedEquipment can't startCoil power off after 2S delay	Door OpenedEquipment can't startCoil power off	Equipment stops Coil power off
Safety door status diagram					
Wiring diagram		E1 E2 11	E1 E2 E1 11 22 22 E33 34 E42	B1 E2 111 12 12 21 22 33 34 41 42	

CONTACT CAPACITY

	Rated Voltage		230V
Rated (Inductive load (AC-15)	4 A	_
Current	Inductive loads (DC-13)	_	4 A

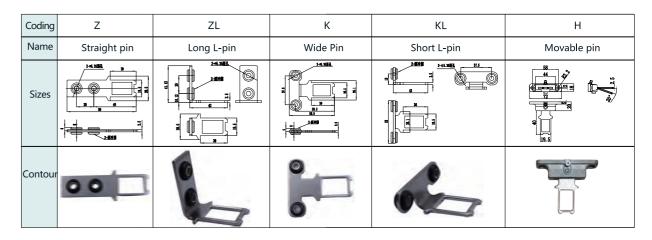
SOLENOID COIL

Rated voltage	DC24V	+10% -15%
Rated current	0.31A	
Insulation class	Level B	

PERFORMANCE SPECIFICATIONS

Production standard	T/SDMTGM0007-2020	
Operating environment	Better than pollution level 3	
Ambient temperature	-5~40°C	
Relative humidity	45~80%	
Protection class	IP67 (without induction port)	
Mechanical service life	Not less than 1 million times	
EL	Not less than 100,000 cycles(AC-12 250V 4A)	
Electrical service life	Not less than 1 million times(24V AC/DC 100mA)	
Tensile strength	2500N	

PLUG



OUTLET CONNECTOR TYPE

Connector Type	Photo	Connector Type Internal Terminals	Wiring Diagram
1.Cable waterproof connector			######################################
3. No connector			A



SAFETY DOOR SWITCHSS/E-01C

SAFETY DOOR SWITCHSS/E-01C



FEATURE DESCRIPTION

- Metal switch head for 4-way adjustment
- Five plug types optional
- With manual unlocking mechanism
- ♦ Increase the number of contact groups to 4 groups
- Outlet method in 3 directions optional

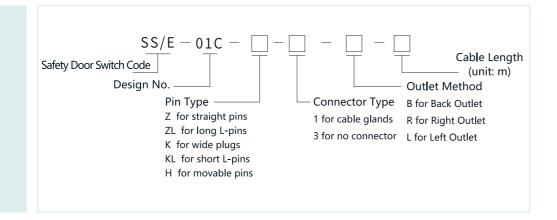


LOCKING METHOD

MODEL DESCRIPTION



Energized Locking



DYNAMIC ACTION AND CIRCUIT DIAGRAM

	State 1	State 2	State 3
Action State	Door Closed	Door Closed	Door Opened
Action State	 Equipment running 	• Equipment can' t start	 Equipment can't start
	 Coil power on 	 Coil power off 	 Coil power off
Safety door status diagram			
Wiring diagram	E1 E2 B11 J2 B21 J222 B33 J34 B41 J42	[] [] []	E1 E2 12 11 21

Manual unlock state	
Equipment stops Coil power off	
E1 E2 E1 11 21 22 22 E33 34 E41 41 42	

CONTACT CAPACITY

	Rated Voltage		230V
Rated (Inductive load (AC-15)	4 A	_
Current	Inductive loads (DC-13)	ı	4 A

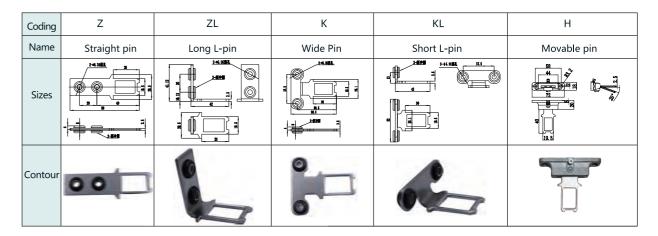
SOLENOID COIL

Rated voltage	DC24V	+10% -15%
Rated current	0.31A	
Insulation class	Level B	

PERFORMANCE SPECIFICATIONS

Production standard	T/SDMTGM0007-2020
Operating environment	Better than pollution level 3
Ambient temperature	-5~45℃
Relative humidity	45~80%
Protection class	IP67 (without induction port)
Mechanical service life	Not less than 1 million times
EL	Not less than 100,000 cycles(AC-12 250V 4A)
Electrical service life	Not less than 1 million times(24V AC/DC 100mA)
Tensile strength	2500N

■ PLUG



OUTLET CONNECTOR TYPE

Connector Type	Photo	Connector Type Internal Terminals	Wiring Diagram
1.Cable waterproof connector		E PO	##### ################################
3. No connector			Application 11



SAFETY DOOR SWITCH SS/E-03

SAFETY DOOR SWITCHSS/E-03



■ FEATURE DESCRIPTION

- Square shape structure
- Metal switch head for 4-way adjustment
- Spring force for unlocking by solenoid coil excitation
- Assisted unlocking mechanism as standard
- Independent circuits of indicator lights can respond to a variety of uses

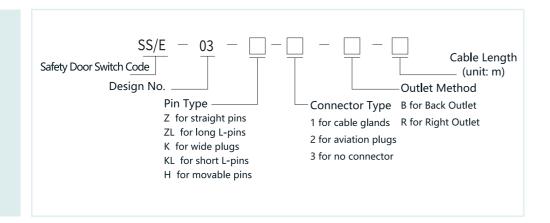


LOCKING METHOD

MODEL DESCRIPTION



Energized Unlocking



DYNAMIC ACTION AND CIRCUIT DIAGRAM

	State 1	State 2	State 3	State 4	Manual unlock state
Action State	Door ClosedEquipment startedCoil power off	Door ClosedEquipment can't startCoil power on	Door OpenedEquipment can't startCoil power off after 2S delay	Door OpenedEquipment can't startCoil power off	Equipment stops Coil power off
Safety door status diagram					
Wiring diagram	E1 01 E2 E2 E1 22 51 52 E5 E3 33 34 63 64 E6	E1 11 12 41 42 44 E2 21 22 51 52 15 E3 33 34 63 64 15	EL 01 12 EL E2 EL 21 0 22 51 0 52 E5 ES 33 1 34 63 1 64 E6	EL 11	E1

CONTACT CAPACITY

Rated Voltage		30V	250V	
Ra	AC	Resistive load(AC-12)		4A
Rated (AC	Inductive load(AC-15)	1	2A
Current	DC	Resistive load(DC-12)	2A	0.8A
ent	DC	Inductive loads(DC-13)	1A	0.4A

SOLENOID COIL

Rated voltage	DC24V	+10% -15%
Rated current	0.4A	
Insulation class	Level B	

PERFORMANCE SPECIFICATIONS

T/SDMTGM0007-2020
Better than pollution level 3
-5~40°C
45~80%
IP67 (without induction port)
Not less than 1 million times
Not less than 100,000 cycles(AC-12 250V 4A)
Not less than 1 million times(24V AC/DC 100mA)
2700N

PLUG

Coding	Z	ZL	К	KL	Н
Name	Straight pin	Long L-pin	Wide Pin	Short L-pin	Movable pin
Sizes				31.8 y y	
Contour					

OUTLET CONNECTOR TYPE

Connector Type	Photo	Connector Type Internal Terminals	Wiring Diagram
1.Cable waterproof connector		G Co	11 41 42
2. Aviation plug			21 51 52 52 52 63 64 E1 E2
3. No connector		12.00	01 02



SAFETY DOOR SWITCH SS/E-06

SAFETY DOOR SWITCH SS/E-07



FEATURE DESCRIPTION

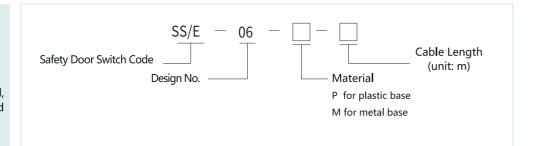
- ♦ Attractive force of suction cup electromagnet is used as locking force
- Detecting the opening and closing of Safety doors by switching signals
- The suction plate is equipped with a position compensation function to ensure reliable locking
- The base is available in plastic or metal
- Clamping force of 600N

LOCKING METHOD



Power Failure Unlock: When the safety door switch is de-energized, the safety door switch unlocks and the machine or Equipment stops running.

■ MODEL DESCRIPTION



CONTACT CAPACITY

Rated voltage	DC24V +10%
Rated current	2mA

SOLENOID COIL

Rated voltage	DC24V +10%
Rated current	0. 25A
Insulation class	Level B

CONTACT CAPACITY

Production standard	T/SDMTGM0007-2020			
Operating environment	Better than pollution level 3			
Ambient temperature	-5~40°C			
Relative humidity	45~80%			
Protection class	IP50			
Mechanical service life	Not less than 1 million times			
	Not less than 100,000 cycles(AC-12 250V 4A)			
Electrical service life	Not less than 1 million times(24V AC/DC 100mA)			
Tensile strength	600N			

OUTLET CONNECTOR TYPE

Connector Type	Photo	Connector Type	Wiring form
1.Cable waterproof connector		5	1 OVI 2 1 OVI 2 1 1 OVI 2 1 1 1 1 1 1 1 1 1 1 1 1 1

FUNCTIONAL DESCRIPTION

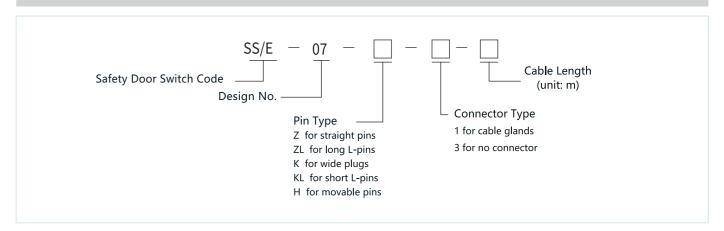
■ CHARACTERISTICS

There is no locking function for the Safety door, and the contact switch signal is used to detect whether the Safety door is closed or not, to determine whether the equipment can be opened.



- Small body for narrow installation space.
- Metal switch head for 4-direction adjustment.
- Built-in 3 sets of contacts, can complete a variety of wiring methods.
- The standardized contacts ensure high reliability of contact.

MODEL DESCRIPTION



DYNAMIC ACTION AND CIRCUIT DIAGRAM

	State 1	State 2	
Action State	Door ClosedEquipment running	Door Closed Equipment stops	
Safety door status diagram			
Wiring diagram	□ 11 12 12 22	© 11	

■ 성능설명

Production standard	T/SDMTGM0007-2020	
Operating environment	Better than pollution level 3	
Ambient temperature	-5~40°C	
Relative humidity	45~80%	
Protection class	IP67 (without induction port)	
Mechanical service life	Not less than 1 million times	
el	Not less than 100,000 cycles(AC-12 250V 4A)	
Electrical service life	Not less than 1 million times(24V AC/DC 100mA)	
Tensile strength	None	



SAFETY DOOR SWITCH SS/E-08A

SAFETY DOOR SWITCH SS/E-08A



■ FUNCTIONAL DESCRIPTION

This safety door switch protects people and equipment. It can be used on its own (door lock function only) or in conjunction with a wide range of safety door switches, making it easy to realize the optimal solution for different scenarios. When the door opens, the mechanism and the safety door switch synchronize their movements to issue a stop command, reducing the risk factor.

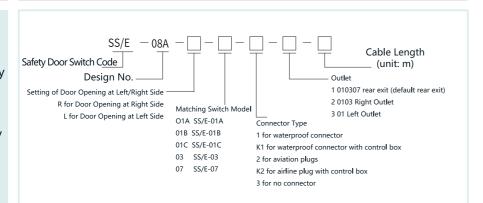
The risk factor determines the level of the safety control factor, and different matching safety door switches are selected according to the different levels.



CHARACTERISTICS

- Aluminum alloy frame with high overall strength and reliability;
- The screw connection method is easy to assemble and is more lenient to the installation conditions;
- Outstanding color matching, highly recognizable in the installation environment;
- There are two directions of left and right opening, choose as needed;
- Matching control box independent control function module.

MODEL DESCRIPTION



Note: The definition of left/right opening is only for SS/E-03, other matching safety door switch models can be used for left/right opening, and this definition cannot be selected when selecting the model.

OPTIONAL CONTROL BOX WIRING DIAGRAM

Waterproof Connector Internal Terminal No. External Terminal No. Internal Terminal No. External Terminal No. 12 33 12 34 41 - 22 42 E1 **E2** PE () Matching Switch Type 01A Matching Switch Model 01B, 01C

Matching Switch Type 01A, 03 Internal Terminal No. (01A) (03) Plug Terminal No. 11 41------1 12 42-----2 11 11-----3 22 12-----4 E1 E1-----5

CONTACT CAPACITY

Rated Voltage			30V	250V
Ra	AC	Resistive load(AC-12)	_	4A
Rated	AC	Inductive load(AC-15)	_	2A
Current	Curr	Resistive load(DC-12)	2A	0.8A
rent	Inductive loads(DC-13)	1A	0.4A	

SOLENOID COIL

Rated voltage	DC24V +10%
Rated current	0. 25A
Insulation class	Level B

PERFORMANCE SPECIFICATIONS

E2 E2-

Production standard	Safety door switches*		
Operating environment	Better than pollution level 3		
Ambient temperature	-5~40℃		
Relative humidity	45~80%		
Protection class	IP67 (without induction port)		
Mechanical service life	Not less than 1 million times		
Electrical comics life	Not less than 100,000 cycles(AC-12 250V 4A)		
Electrical service life	Not less than 1 million times(24V AC/DC 100mA)		
Tensile strength	SS/E-01A: 2000N SS/E-01B: 2500N SS/E-01C: 2500N SS/E-03: 2700N		

Note: * It indicates that the standard is a group standard, standard number: T/SDMTGM0007-2020.

■ INDIVIDUAL CONTROL BOX DESCRIPTION

SS/E-01A
Example
Description

(Location Description:					Wiring Instructions:
		A B C Description			Description	$11 \sim \frac{1}{2}$ $\frac{1}{2} \sim 24$
	Normal state	Normally open,	Light out	Norma ll y Open (Disconnected)	Locked, door closed	$12 \sim \frac{2}{3}$ Control Box $\frac{2}{3} \sim 0$ V
	Activated state	Normally open, light off	Light on	Norma ll y c l osed	System yellow light alarm, optional	21 ~ 3 ~ 0UT1 22 ~ 4 ~ 0UT2
	Un l ocked state	Normally dosed, light off	Light out	Norma ll y c l osed	Long press to unlock, red lights up and green goes out	22 \(\frac{4}{5} \)
	Door opened	Light out	Light out	Norma ll y c l osed	System red light alarm, door open	$E2 \sim \frac{6}{6}$
	Manual unlocking				Emergency use, unlocked	SS/E-01A Contact Aviation Plugs Aviation Plugs External Wire
f						
,						