Industrial Safety Systems ***Safety Relays***

新达 CYNDAR

SRC106

Supports multiple input devices

Safety Relay

Anti-interference type

Efficiently solve applications

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CE

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SRC106 Safety Relay

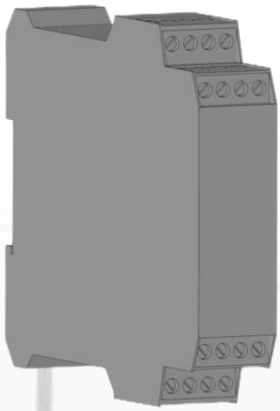
Checks and monitors safety systems to enable machines to start or execute commands to stop machines.
For small machines that require specialized logic devices to implement safety functions.
Two-channel single-function safety relays are a more economical solution.

SRC106 complies with multiple functional safety standards

- Up to the PLe standard of ISO13849-1 and the SiL3 standard of IEC 62061
- Proven dual-channel safety monitoring circuit design
- Multifunctional configuration DIP switch, applicable to a variety of safety sensors
- Input and output LED indication
- Automatic/manual reset lever, quick system configuration
- Width 22.5mm, reducing installation space
- Optional screw terminals or spring terminals for a wider range of applications
- PLC signal output
-

Suitable for monitoring

Safety edge Safety mat Two-hand switch Safety light curtain, Safety scannerSafety sensor Safety switch Safety door lock Emergency stop button



Force safe output

- **3NO/1NC**

Applicable to industry

- Injection molding machines, CNC machine tools
- Press/hydraulic press, glass machinery, filling machinery, packaging machinery
- Sorting machinery, woodworking machinery, paper making machinery
- Intelligent forklifts, AGVs, robots, elevators
- Wind power, SIS system, etc.

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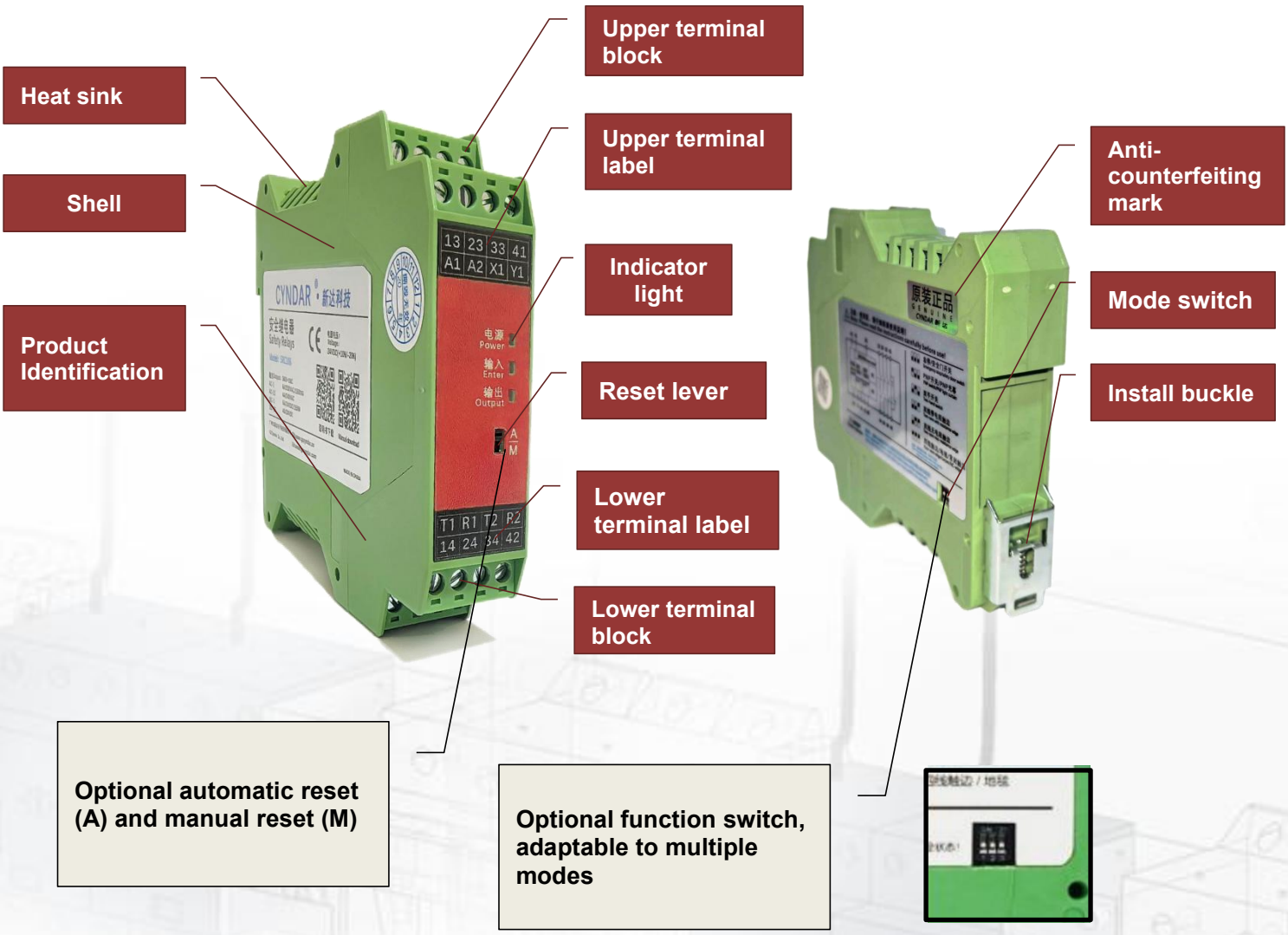
SRC106 Safety Relay

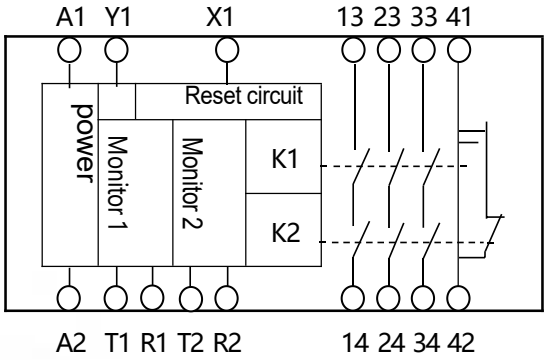
SRC106 complies with multiple functional safety standards

- Strictly select first-line brand devices and 100% process testing
- The core forced relay adopts well-known products certified by third-party authoritative organizations to ensure high reliability
- Full-function configurable DIP switch to control various applications easily
- Uses extremely fast mutual verification technology to ensure safe and efficient response time
- Adopts dual-channel classic design, fully compliant with the functional safety requirements of SO13849 and GB16855
- Save you 40% cost



SRC106 Safety Relay

- **Safe forced disconnection relay output**
  3 normally open instantaneous safety contacts (3NO)
  1 normally closed instantaneous safety contact (1NC)
- **LED indicator light**
  Power indicator
  Input status indication
  Output status indication
- **Auto reset switch**
  Configurable automatic/manual reset switch
- **Multi-function configuration DIP switch**
  Can be configured to be suitable for emergency stop, light curtain, door lock, touch edge, carpet, two-hand switch and other functions
- **Safety features**
  Redundant loops with self-monitoring function
  Safety functions remain effective in the event of component failure
  Safety contacts are automatically tested for correct opening and closing during each opening-closing cycle
- **System module diagram**



- **Terminal function description**

A1	Positive power supply (24VDC)	A1, A2 as power supply
A2	Negative pole of power supply (0V)	
T1	Channel 1 signal output	Type I signal source
R1	Channel 1 safety input	Accepts type I signal input, with short circuit, open circuit detection and channel 2 mutual detection
T2	Channel 2 signal output	Type II signal source
R2	Channel 2 Safety Input	Accepts type II signal input, with short circuit, open circuit detection and channel 1 mutual detection
X1	Reset input (configurable manual reset or automatic reset)	Automatic reset: When the input conditions are met, the unit is activated immediately
Y1	Transistor signal output	Manual reset: The input conditions are met, and the reset loop is then closed manually. After releasing, the unit is activated.
13/14	NO instantaneous safety contact (NC when not triggered)	This unit can be connected to an external SRC106 unit on the contacts to increase the number of contacts.
23/24		
33/34		
41/42	NC instantaneous safety contact (NO when not triggered)	Can be used as an external signal light or to control other devices

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◆ LED and reset lever operating instructions

LED indicator status

■Always on ★☆Flashing □Off

Function	state	Power	Input LED	Output LED
Emergency stop/door lock (dual channel)	Input connection disconnection/connection abnormality	■	★☆	□
	Input single channel exception/channel not synchronized	■	■	★☆
	Emergency stop pressed/door lock opened/signal anti-shake detection*Note 1 exceeds the limit	■	★☆	□
	Entered correctly/not reset	■	■	□
	Entered correctly/reset	■	■	■
	System error	★☆	□	□
Emergency stop/door lock (single channel)	Input connection disconnection/connection abnormality	■	★☆	□
	Emergency stop pressed/door lock opened	■	★☆	□
	Entered correctly/not reset	■	■	□
	Entered correctly/reset	■	■	■
	System error	★☆	□	□
Light curtain/PNP switch or NPN switch	Input connection disconnection/connection abnormality	■	★☆	□
	Input single channel exception*Note 2	■	■	★☆
	Light curtain is interrupted/switching	■	★☆	□
	Entered correctly/not reset	■	■	□
	Entered correctly/reset	■	■	■
	System error	★☆	□	□
Two-hand switch (only automatic reset is effective)	Input connection disconnection/connection abnormality	■	★☆	□
	Press the switch with both hands	■	■	■
	Two-hand switch release	■	★☆	□
	system error	★☆	□	□
2-wire edge/carpet with resistor	Input connection disconnection/connection abnormality	■	★☆	□
	The edge/carpet is pressed continuously	■	■	★☆
	Edge/carpet connection is correct/not reset	■	■	□
	Edge/carpet connection correct/reset	■	■	■
	System error	★☆	□	□
Resistorless 2-wire edge/mat	Input disconnected (detection not supported)	■	★☆	□
	Input connection abnormality	■	■	★☆
	The edge/carpet is pressed continuously	■	■	★☆
	Edge/carpet connection is correct/not reset	■	★☆	□
	Edge/carpet connection correct/reset	■	■	■
	System error	★☆	□	□
4 wire edge/mat	Input connection disconnection/connection abnormality	■	★☆	□
	The edge/carpet is pressed continuously	■	■	★☆
	Edge/carpet connection is correct/not reset	■	■	□
	Edge/carpet connection correct/reset	■	■	■
	System error	★☆	□	□
Normally closed edge	Input connection disconnection/connection abnormality	■	★☆	□
	The edge/carpet is pressed continuously	■	★☆	□
	Edge/carpet connection is correct/not reset	■	■	□
	Edge/carpet connection correct/reset	■	■	■
	System error	★☆	□	□

*Note 1: Anti-shake detection: When a virtual connection occurs in the connection of external safety components, it will cause an instantaneous loss of safety functions, and may also cause the safety output to jump repeatedly, posing safety hazards and faults. Therefore, the device will detect a virtual connection failure. , and securely lock the device.

*Note 2： Single channel light curtain/PNP switch or NPN switch does not have this function

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◆ Reset lever operation

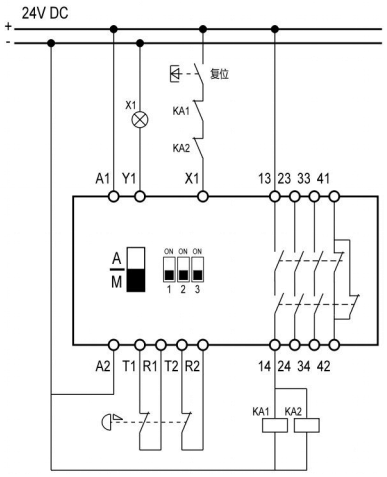
	State	Illustrate
Reset lever	A	Can be configured as automatic reset function (X1 must be short-circuited to the positive pole of the power supply)
	M	Can only be configured for manual reset function (X1 is connected to the positive pole of the power supply through the reset button, refer to the connection legend)

◆ Mode switch operation instructions

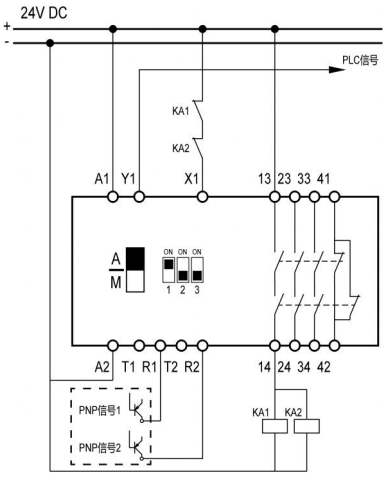
Function	Dial status
Emergency stop/door lock	
Light Curtain/PNP Switch	
Two-hand switch	

Function	Dial status
With resistor 2 wire edge/mat	
Resistorless 2-wire edge/mat	
4-wire contact/carpet/normally closed contact	

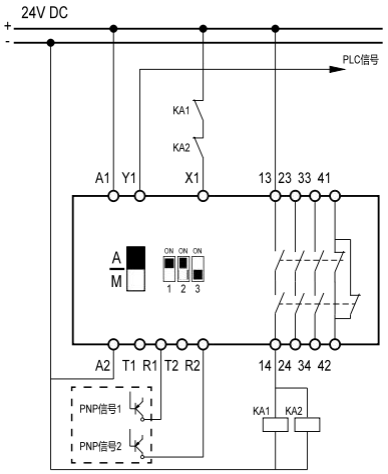
◆ Connection example



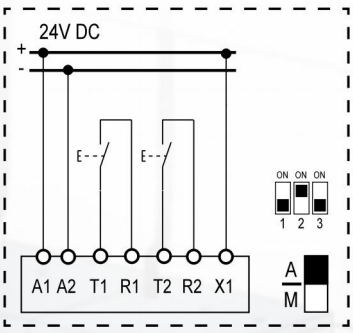
1. Dual channel emergency stop safety input with manual reset



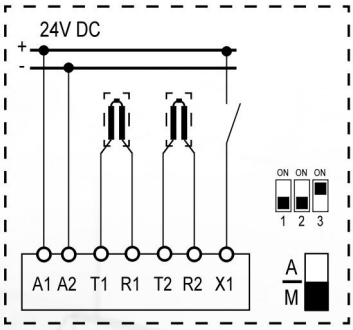
2. Dual-channel PNP safety light curtain/PNP switch safety input (or NPN light curtain/NPN switch), with automatic reset, PLC signal output



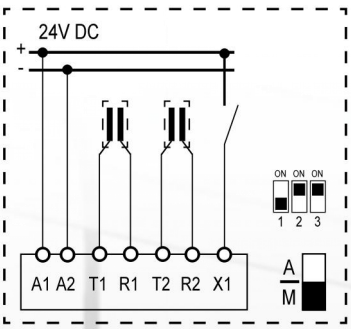
3. Dual-channel PNP safety light curtain/PNP switch safety input (or NPN light curtain/NPN switch), with automatic reset, PLC signal output



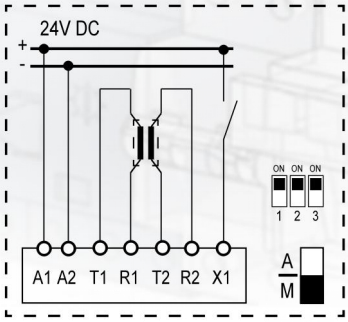
4. Two-hand switch safety input, automatic reset, dual channel time difference of 0.5s



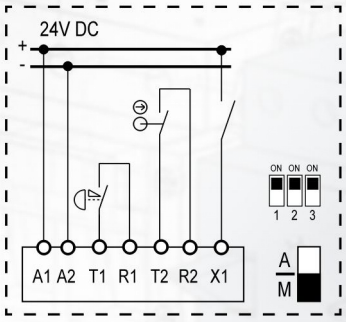
5. 2-wire edge/carpet (with resistor) safety input with manual reset



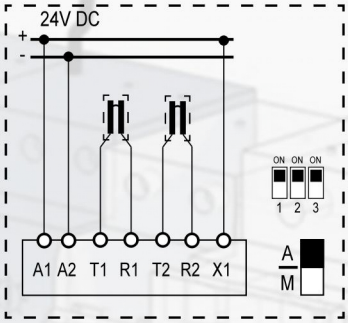
6. 2-wire edge/mat(no resistor) safety input with manual reset



7. Dual channel 4-wire edge/mat safety input with manual reset



8. Single channel emergency stop door lock safety input with manual reset



9. NC edge/mat safety input with automatic reset

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◆ Technical Parameters

Power supply	
Power supply	24V DC
voltage tolerance	+10%/-20%
Power consumption	2.9W
Output	
Relay safety output	3NO+1NC
Transistor signal output	<500mA 24VDC
Relay contact capacity	
AC-1	6A/250VAC/1500VA
AC-15	4A/240VAC
DC-1	6A/24VDC/150W
DC-13	4A/24VDC
Maximum switching capacity	12A (distributed on all safety output contacts)
Contact resistance	<100mΩ
minimum load	10mA/5V
Contact material	AgSnO2 + 0.2μmAu
General parameters	
Output fuse (external)	5A gL/gG
Release response time	<30ms（from input to output），
Input component end detection resistor	1kΩ~10kΩ
(edge/carpet)	80000 times
Electrical life	2
pollution level	-25℃~85℃
Operating temperature	35%-85%（No freezing or condensation）
Working humidity	2.5kV
Impulse withstand voltage	Shell IP30, terminal IP20, recommended to be installed in cabinet or shell IP54
Protection level	-40℃~105℃
storage temperature	Flame retardant PA66
shell material	Standard 35mm DIN rail/spring clip
Installation method	114.5mm×100.5mm×22.5mm
size	172g
Connection parameters	
Available cross-section range of rigid conductors	0.5~2.5mm²
Available cross-section range of flexible conductors	0.5~2.5mm²
Minimum conductor cross-section	AWG 24
Maximum conductor cross-section	AWG 12
Stripping length	8mm
Minimum tightening torque	0.5 Nm
Maximum tightening torque	0.6 Nm
Standard application	

Conform to	EN 60947-1:2007/A2:2014
	EN 60947-5-1:2004/A1:2009
	EN ISO 13849-1:2015
	EN 62061:2005+A2:2015
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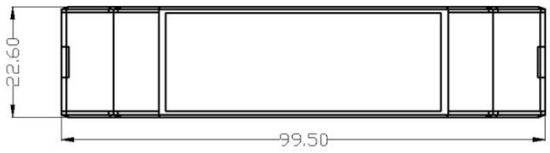
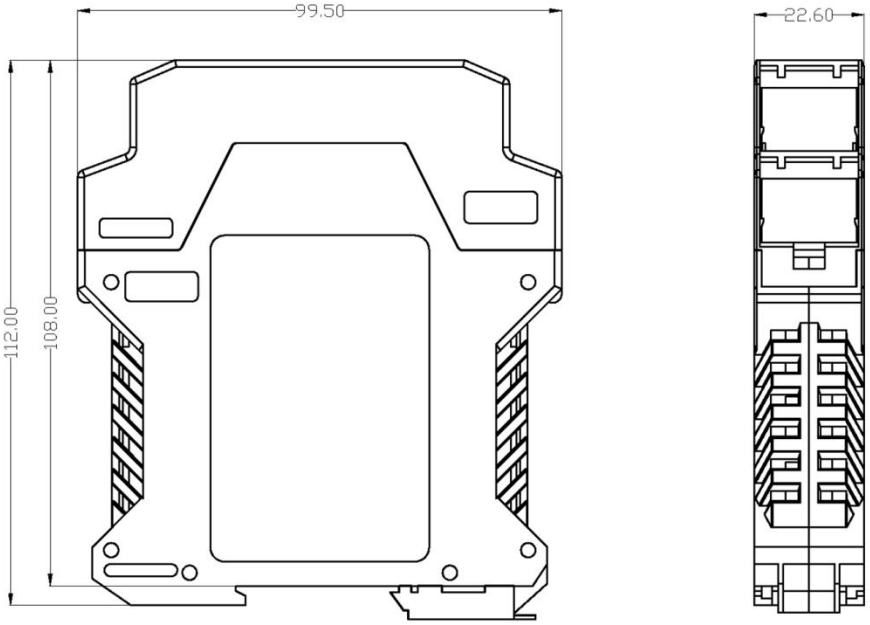
◆ Outline dimensions



3D model download



◆ Ordering information

Model	Enter	Note: Only PNP and NPN sensors need to be selected. When connected to other sensors or switches, the default SRC106 model is issued.
SRC106	PNP light curtain/PNP switch	
SRC106.n	NPN light curtain/NPN switch	

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