



SCDA127R SCDA127R/N SCDA131R/P SCDA131R/N Safety Relay Module



Product overview

SCDA127R、SCDA127R/N、SCDA131R/P、SCDA131R/N have manual/automatic reset function and are safety relay modules in accordance with ISO 13849-1 category 4.

Input: The safety relay module has three different input wiring configurations, one normally closed, two normally closed or two outputs of the light curtain (SCDA127R connected to PNP signal, SCDA127R/N connected to NPN signal, SCDA131R/P connected to PNP signal, SCDA131R/N connected to NPN signal). When connecting with two normally closed modes, the safety relay module checks for cross-faults between the two inputs. When connected to a light curtain, the light curtain must have the function of performing cross-fault detection.

Output: SCDA127R, SCDA127R/N safety relay modules have three normally open safety outputs and one normally closed auxiliary output. The SCDA131R/P and SCDA131R/N safety relay modules have four normally open safety outputs and two normally closed auxiliary outputs.

The auxiliary output is a non-safety output designed to provide external signals about the safe output state, the safety output has redundant circuits supporting safety functions and an automatic monitoring mechanism that can remain active in the event of a component failure, and the safety relay module can automatically detect whether the contact is properly opened or closed during each duty cycle.

Technical parameters

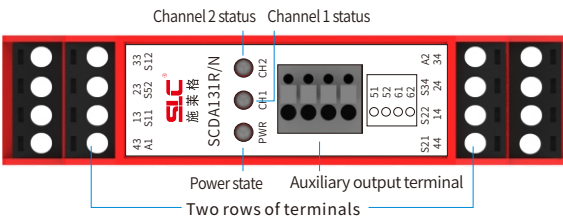
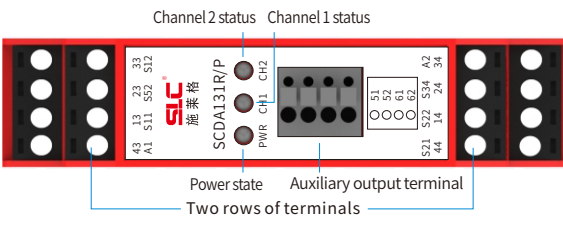
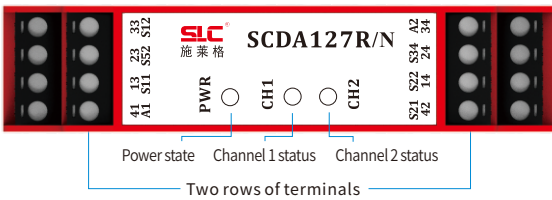
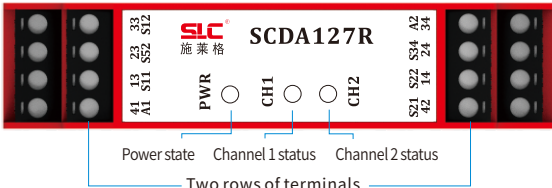
Security level	
Standard	ISO 13849-1
Security classification	Meets ISO 13849-1 category 4
Power supply	
Enter the power supply	24V /DC
Power consumption	2W
Input	
Secure input	1 N.C. or 2 N.C. or safety light barriers
Enter Sync	No limit on automatic reset(CH2 before CH1)
Maximum input resistance	110Ω
Reposition	Automatic or manual reset
Power-on delay/recovery time	1s/100ms
Response time	15ms
Output	
Safe output	3-channel or 4-channel N.O. Redundant normally open output
Auxiliary contact output	1 channel normally closed or 2 channel normally closed output
Shock rated withstand voltage	2500V
The minimum current is not switched for a specific voltage	10mA/10V
Output fuse	External 6A slow melt or 10A fast melt
SCDA131 auxiliary output	Max. 100mA/24V
Electrical life	1×10 ⁵ 次(1NO:3A 24VDC, Resistive load, 1s on 9s off) 1×10 ⁶ 次(1NO:6A 250VAC, Resistive load, 1s on 9s off)
Mechanical life	2,000,000 operations
Environmental and physical characteristics	
Enclosure rating/terminal protection	IP40/IP20
Operating temperature	-5...+55°C
Vibration resistance	10...55Hz, 0.35mm
Impact resistance	10g, 16ms, 100 shocks
Installation	35mm DIN rail
Weight (g)	150
Maximum conductor specifications	0.2...4mm ²

※ Depending on the product configuration and manufacturing process, the actual product size and weight may vary, please refer to the actual product

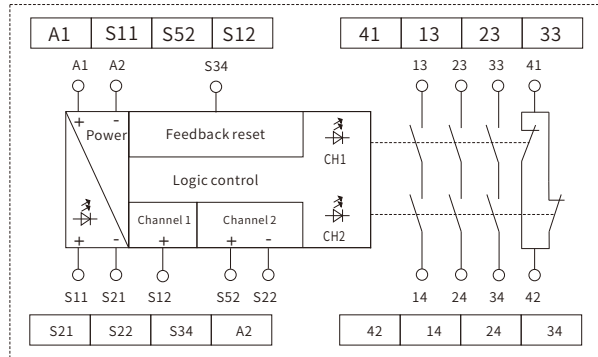
Product features

- ◆ Comply with ISO 13849-1 Category 3
- ◆ Manual/automatic reset
- ◆ Safety light curtain,scram or safety door applications
- ◆ Three or four safety outputs (contacts)
- ◆ Cross-fault monitoring
- ◆ Removable terminals

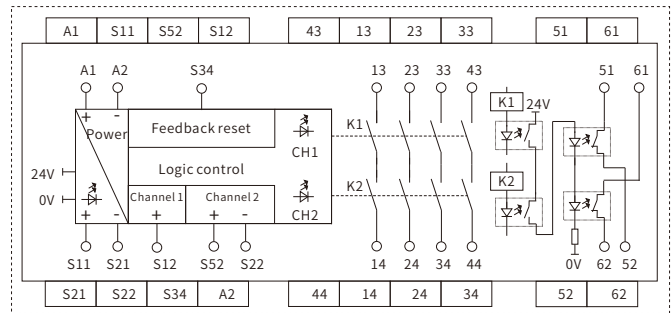
Panel description



SCDA127R block diagram



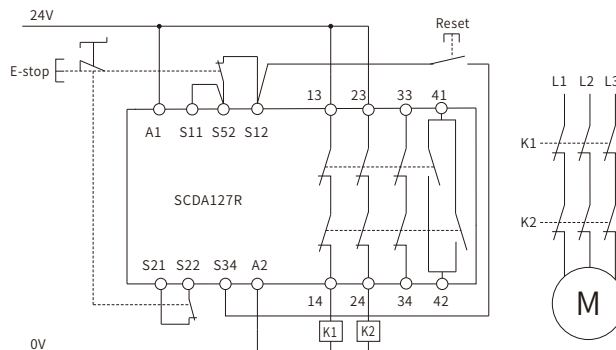
SCDA131R block diagram



Description of wiring diagrams for typical applications

SCDA127 connected to dual channel emergency stop, manual reset, no output monitoring

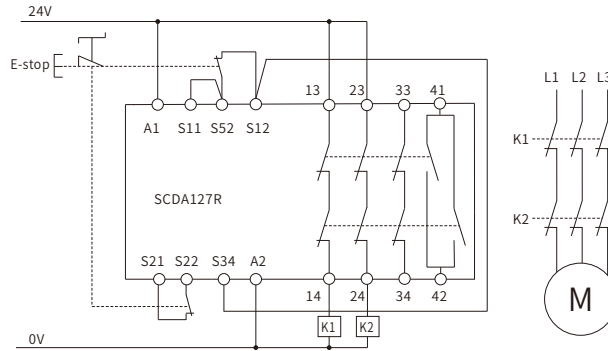
Manual Reset



SCDA127R SCDA127R/N SCDA131R/P SCDA131R/N
SAFETY RELAY MODULE

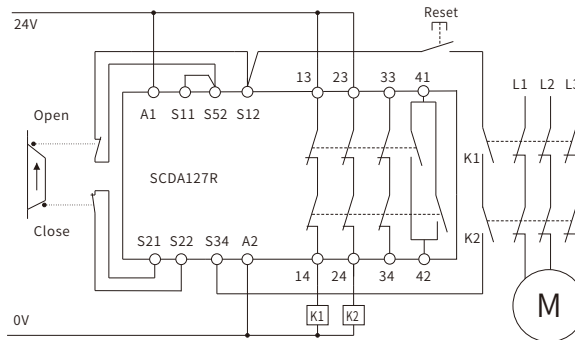
SCDA127 connected to dual channel emergency stop, automatic reset, no output monitoring

Automatic reset



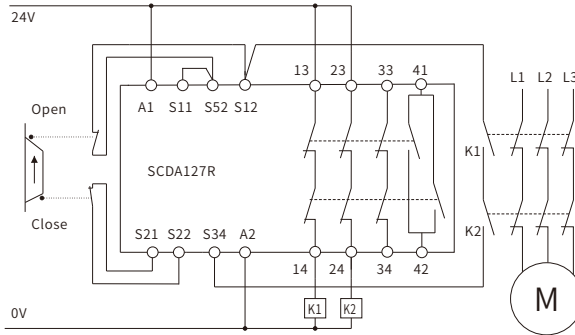
SCDA127 connected to dual channel safety door, manual reset, output monitoring

Manual Reset

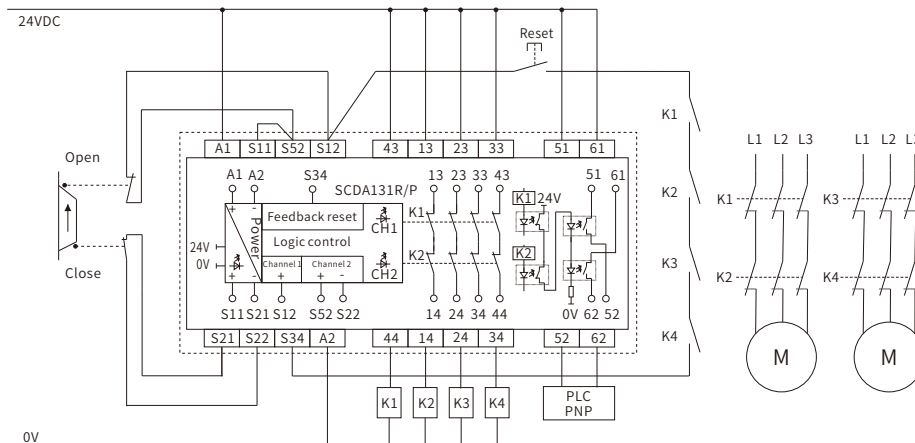


SCDA127 connected to dual channel safety door, automatic reset, output monitoring

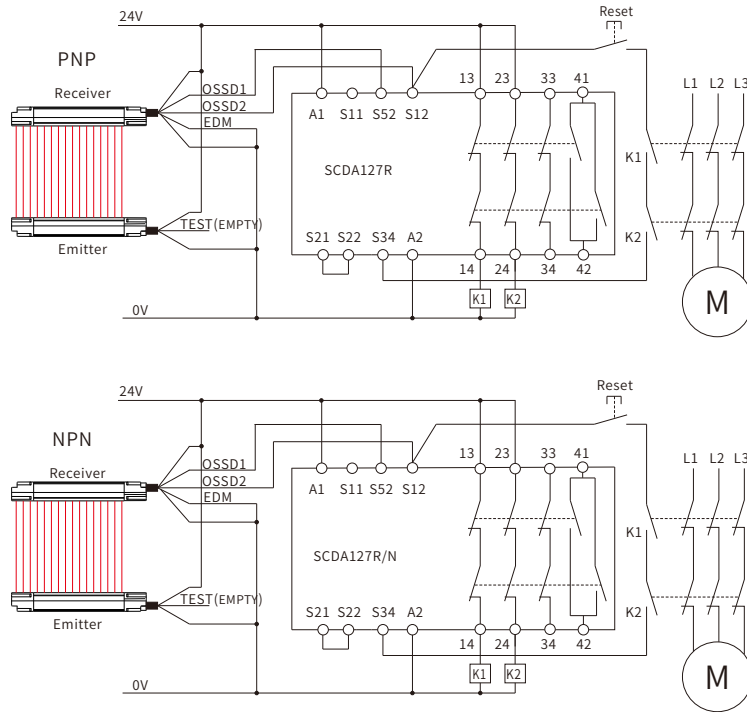
Automatic reset



SCDA131 is connected to a dual channel safety door, which is manually reset and monitored for output monitoring

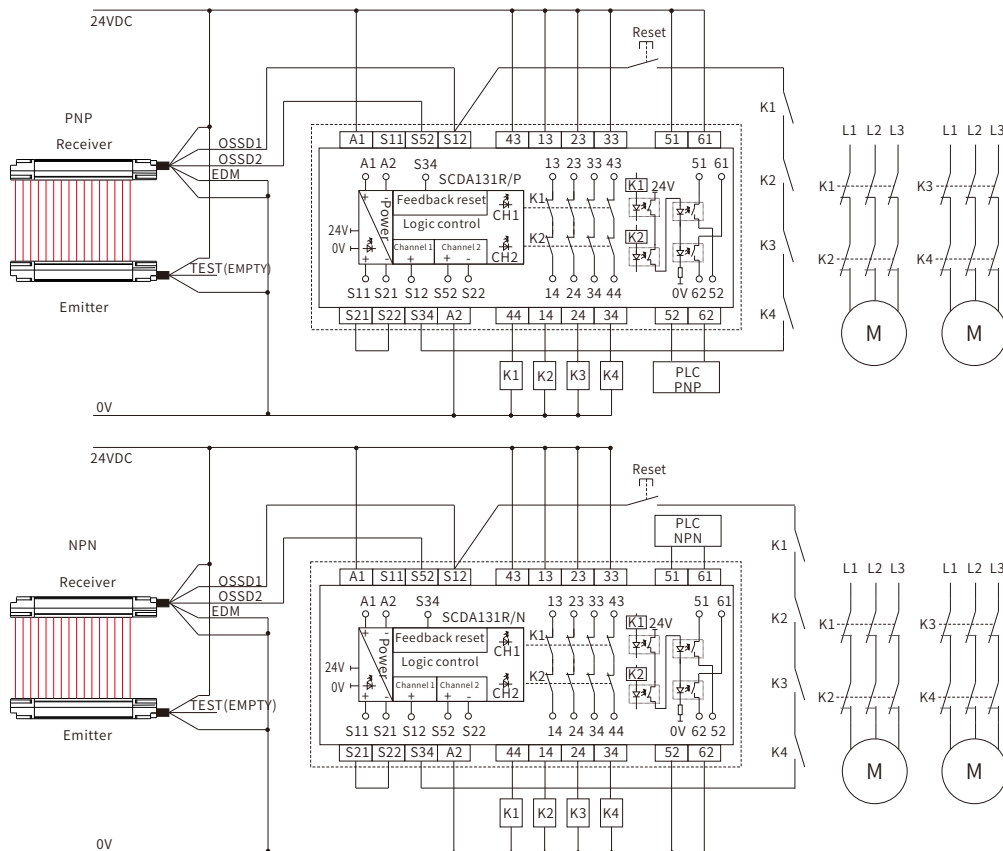


SCDA127 connected to SLC light curtain, manually reset monitored, output monitoring

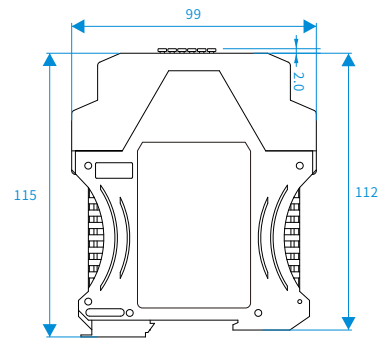
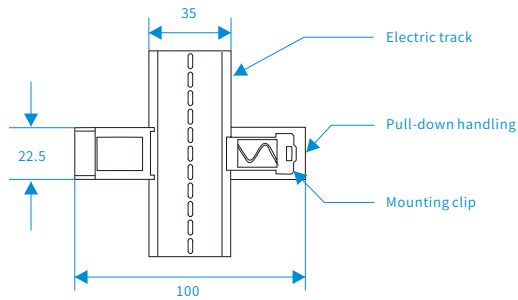


※The application wiring diagram is in normal working state

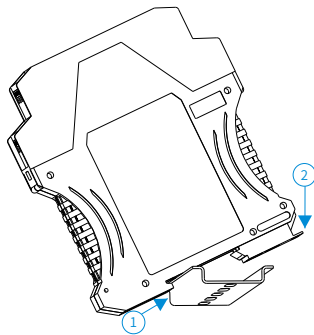
SCDA131 connected to light curtain, manually reset monitored, output monitoring




Installation method



Function description: The safety relay module should be installed in the electronic control box with a protection type of IP54 or above, installed with a DIN rail (35mm) and fixed in the electronic control box.



1. The fixed plastic card position of the SCDA series safety module is diagonally stuck to the side of the installation rail;
2. Put down the guide rail and press the SCDA series safety module, so that its hardware movable buckle is clasped to the other side of the guide rail.

	
Warning	<ul style="list-style-type: none"> ◆ Constantly closed output cannot be used as safe output. ◆ Please confirm the wiring when the power is turned off. ◆ Please confirm that the change of power supply voltage does not exceed the rated range. ◆ The power supply must have the function of output overvoltage and overcurrent protection. ◆ Not used in flammable and explosive environments.