CHENZHU

Isolated Barrier | Signal Condioner | SPD | Safety Relay

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CHENZHU

Safety Relay CZSR Process Series

Apply to various SIS logic solver

SIL3 | TüV Rheinland Certification | G3 anti-corrosion

5 Year WARRANTY

https://en.chenzhu-inst.com

COMPANY PROFILE

CHENZHU FOCUSED ON PROFESSIONALISM

Chenzhu Instrument Co. Ltd, was founded in April, 2002, who was originaled from Shanghai Institute of Process Automation Instrumentation. CHENZHU is a professional company with core expertise of R&D, manufacturing and sale service of high quality protection products, such as intrinsic barriers, signal isolators, surge protection devices, safety relays etc. CHENZHU has been specialised in providing a professional solution for the safety circuit on site.

R&D STRENGTHS

- Functional safety
- Intrinsic safety explosion-proof
- Signal interference preventing
- Surge protective
- Machinery safety
- Control safety
- Drive safety

MANAGEMENT SYSTEMS

ISO9001

ISO14001

ISO45001

Safety production certification

Integration of informatization and industrialization

R&D SOURCE OF DEVELOPMENT

Based on ISO/IEC/GB standards, CHENZHU has established the professional laboratory which is applied up to 70 test capabilities and verification items in CHENZHU's safety electrical products' development process.

R&D Team
28%
Employees

R&D Investment
11%
/Sales revenue/Year

Innovation
110+
Patents

Testing Facility
80+
Test capabilities

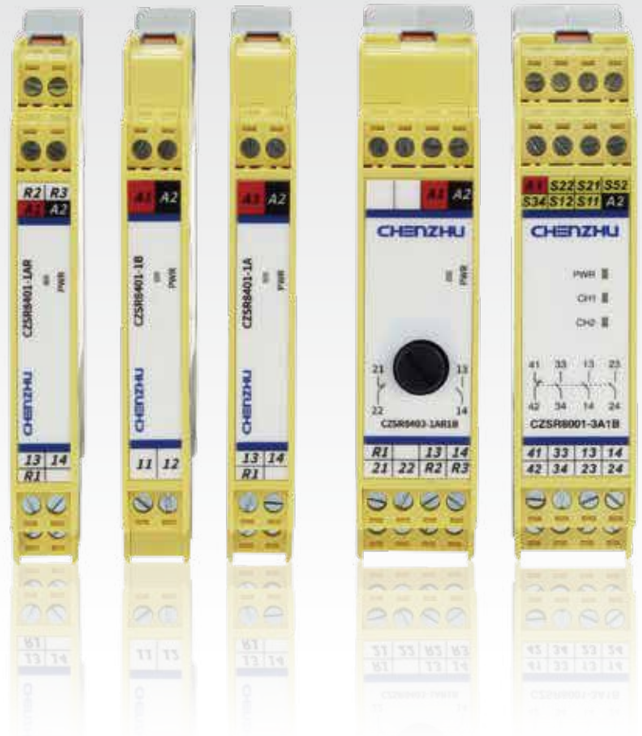
QUALITY ACHIEVEMENTS IN THE FUTURE

CHENZHU factory is continually driven by lean management and flexible production. By our strict quality examination, CHENZHU ensures the production meets the design specification and satisfies our customers.

Company
8500㎡
In total

Max Cap.
2,000,000pcs
Per year

Lean Production
10+
Years' experience



CZSR Process Series Safety Relay Overview

G3 anti-corrosion
- Suitable for harsh operating environment

Lower power consumption
- Suitable for numerous pieces installation

Isolation design
- Apply to various SIS logic solver

Internation certification
- SIL3 TüV Rheinland Certification

Overcurrent protection
- Protection fuse

5 years warranty
- At ease use

CZSR Process Series Safety Relay Product List

Input Devices	Model	Power Supply	Contact Rate	Relay Output		Page
SIS	CZSR8401-1A	24V DC	5A	1 NO	-	5
	CZSR8401-1AR	24V DC	5A	1 NO	-	6
	CZSR8401-1B	24V DC	5A	-	1 NC	7
	CZSR8403-1AR1B	24V DC	5A	1 NO	1 NC	8
	CZSR8001-3A1B	24V DC/AC	5A	3 NO	1 NC	9
	CZSR8001-2A2B	24V DC/AC	5A	2 NO	2 NC	10

CZSR Process Series Safety Relay Introduction

【Watch Video】

CZSR Process Series Safety Relay Features:
- Slim width to 12.5mm
- Lower power consumption
- 5A contact rate
- Proof test & Fuse changable
- Applicable to NE、ND、high altitude

Model

CZSR8401-1A

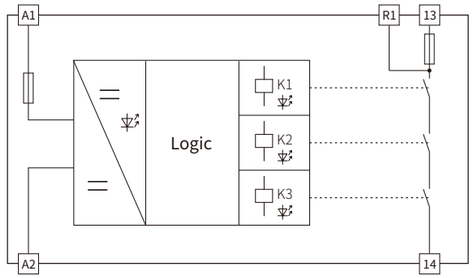
CZSR8401-1A is a safety relay module,which is designed with the FailSafe technology that could achieve SIL3 in accordance with IEC61508 . Triple redundant technology and fuse protection are used in the output circuit in order to prevent contacts welding.

Dimension(L×H×W)：114.5mm×99.0mm×12.5mm

Features

Triple redundancy
Internal contact fuse protection

Block diagram

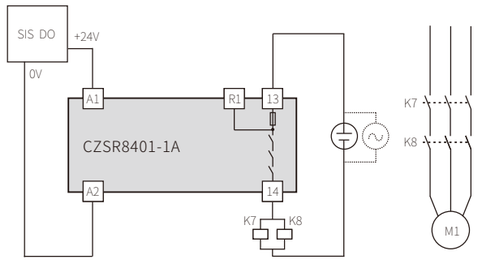


CZSR8401-1A

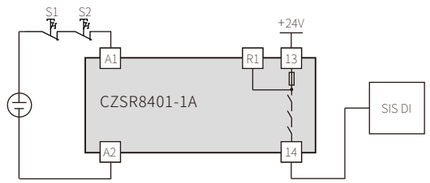
Technichal Data

Power data:
Supply voltage：16V~35V DC
Current consumption：⩽35mA (24V DC)
Input data:
Number of channels：1
Input current：⩽35mA (24V DC)
Cable resistance：⩽15Ω
Input devices：SIS controller DIO signals input
Output data:
Number of contacts：**1NO**
Contact material：$AgSnO_2$
Contact fuse protection：5A (Internal)
Utilisation category：5A/250V AC
5A/24V DC
Time data:
Switch-on delay：⩽30ms
Delay-on de-energisation：⩽30ms
Recovery time：⩽30ms
Supply short interruption：20ms
Environmental data:
EMC：EN60947, EN61000-6-2, EN61000-6-4
Vibration：Vibration frequency: 10Hz~55Hz;
Vibration amplitude: 0.35mm
Ambient temperature：-20°C~+60°C
Storage temperature：-40°C~+85°C
Relative humidity：10%~90%
Insulation data:
Overvoltage category：III
Pollution degree：2
Elevation：⩽2000m
Rated insulation voltage：250V AC
Rated impulse voltage：6000V (1.2/50us)
Dielectric strength：1500V AC, 1min
Clearance and creepage distance：In accordance with EN 60947-1
Certification:
Safety integrity level：SIL3

Application（SIS System）



■ SIS controller DO signals input



■ SIS controller DI signals input

Model

CZSR8401-1AR

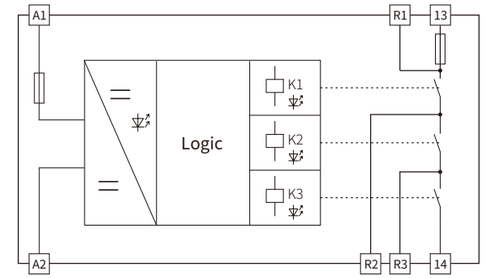
CZSR8401-1A is a safety relay module, which is designed with the FailSafe technology that could achieve SIL3 in accordance with IEC61508. Triple redundant technology and fuse protection are used in the output circuit in order to prevent contacts welding. By proof test terminal, it is easy to detect the contact is welded or not.

Dimension(L×H×W)：114.5mm×99.0mm×12.5mm

Features

Triple redundancy
Internal contact fuse protection
With proof test terminal

Block diagram

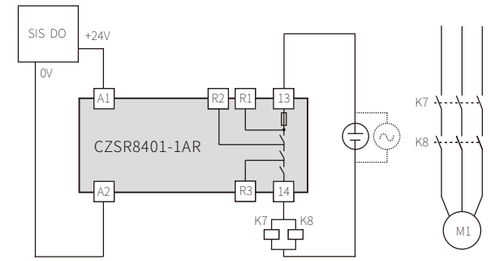


CZSR8401-1AR

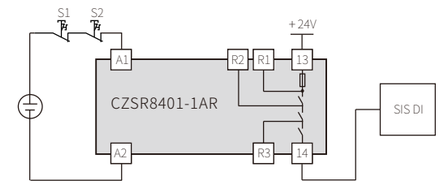
Technichal Data

Power data:
Supply voltage：16V~35V DC
Current consumption：⩽35mA (24V DC)
Input data:
Number of channels：1
Input current：⩽35mA (24V DC)
Cable resistance：⩽15Ω
Input devices：SIS controller DIO signals input
Output data:
Number of contacts：**1NO**
Contact material：$AgSnO_2$
Contact fuse protection：5A (Internal)
Utilisation category：5A/250V AC
5A/24V DC
Time data:
Switch-on delay：⩽30ms
Delay-on de-energisation：⩽30ms
Recovery time：⩽30ms
Supply short interruption：20ms
Environmental data:
EMC：EN60947, EN61000-6-2, EN61000-6-4
Vibration：Vibration frequency: 10Hz~55Hz;
Vibration amplitude: 0.35mm
Ambient temperature：-20°C~+60°C
Storage temperature：-40°C~+85°C
Relative humidity：10%~90%
Insulation data:
Overvoltage category：III
Pollution degree：2
Elevation：⩽2000m
Rated insulation voltage：250V AC
Rated impulse voltage：6000V (1.2/50us)
Dielectric strength：1500V AC, 1min
Clearance and creepage distance：In accordance with EN 60947-1
Certification:
Safety integrity level：SIL3

Application（SIS System）



■ SIS controller DO signals input



■ SIS controller DI signals input

Model

CZSR8401-1B

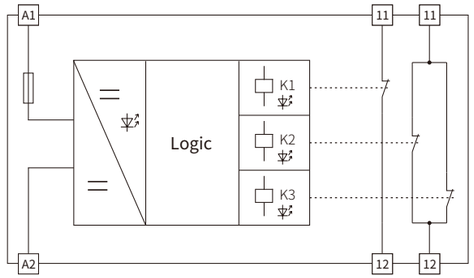
CZSR8401-1B is a safety relay module, which is designed with the FailSafe technology that could achieve SIL2 in accordance with IEC61508. Triple redundant technology and fuse protection are used in the output circuit in order to prevent contacts welding.

Dimension(L×H×W)：114.5mm×99.0mm×12.5mm

Features

Triple redundancy
Normally closed output form

Block diagram

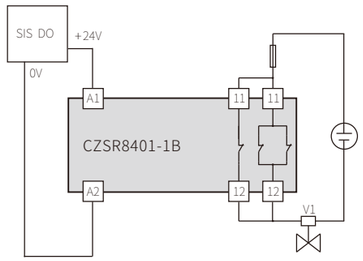


CZSR8401-1B

Technichal Data

Power data:
Supply voltage：16V~35V DC
Current consumption：⩽35mA (24V DC)
Input data:
Number of channels：1
Input current：⩽35mA (24V DC)
Cable resistance：⩽15Ω
Input devices：SIS controller DIO signals input
Output data:
Number of contacts：**1NC**
Contact material：$AgSnO_2$
Contact fuse protection：5A (Internal)
Utilisation category：5A/250V AC
5A/24V DC
Time data:
Switch-on delay：⩽30ms
Delay-on de-energisation：⩽30ms
Recovery time：⩽30ms
Supply short interruption：20ms
Environmental data:
EMC：EN60947, EN61000-6-2, EN61000-6-4
Vibration：Vibration frequency: 10Hz~55Hz;
Vibration amplitude: 0.35mm
Ambient temperature：-20°C~+60°C
Storage temperature：-40°C~+85°C
Relative humidity：10%~90%
Insulation data:
Overvoltage category：III
Pollution degree：2
Elevation：⩽2000m
Rated insulation voltage：250V AC
Rated impulse voltage：6000V (1.2/50us)
Dielectric strength：1500V AC, 1min
Clearance and creepage distance：In accordance with EN 60947-1
Certification:
Safety integrity level：SIL2

Application（SIS System）



■ SIS controller DO signals input

Model

CZSR8403-1AR1B

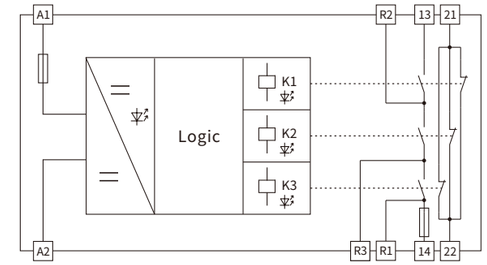
CZSR8403-1AR1B is a safety relay module, which is designed with the FailSafe technology that could achieve SIL3 in accordance with IEC61508. Triple redundant technology and replaceable fuse protection in the output circuit are used in order to prevent contacts welding. By proof test terminal, it is easy to detect the contact is welded or not.

Dimension(L×H×W)：114.5mm×99.0mm×22.5mm

Features

Triple redundancy
Replaceable fuse design
With proof test terminal

Block diagram

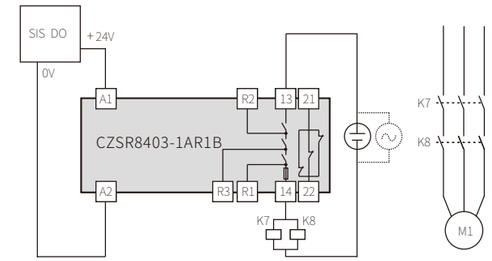


CZSR8403-1AR1B

Technichal Data

Power data:
Supply voltage：16V~35V DC
Current consumption：⩽60mA (24V DC)
Input data:
Number of channels：1
Input current：⩽60mA (24V DC)
Cable resistance：⩽15Ω
Input devices：SIS controller DIO signals input
Output data:
Number of contacts：**1NO+1NC**
Contact material：Ag-alloy
Contact fuse protection：5A (Fuse socket)
Utilisation category：5A/250V AC
5A/30V DC
Time data:
Switch-on delay：⩽30ms
Delay-on de-energisation：⩽30ms
Recovery time：⩽30ms
Supply short interruption：20ms
Environmental data:
EMC：EN60947, EN61000-6-2, EN61000-6-4
Vibration：Vibration frequency: 10Hz~55Hz;
Vibration amplitude: 0.35mm
Ambient temperature：-20°C~+60°C
Storage temperature：-40°C~+85°C
Relative humidity：10%~90%
Insulation data:
Overvoltage category：III
Pollution degree：2
Elevation：⩽4000m
Rated insulation voltage：250V AC
Rated impulse voltage：6000V (1.2/50us)
Dielectric strength：1500V AC, 1min
Clearance and creepage distance：In accordance with EN 60947-1
Certification:
Safety integrity level：SIL3

Application（SIS System）



■ SIS controller DO signals input

Model

CZSR8001-3A1B

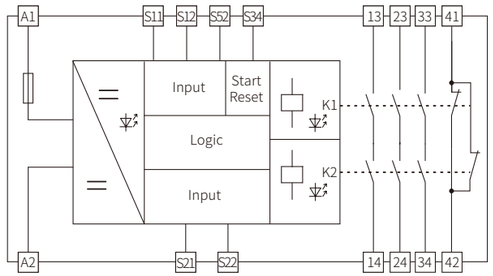
CZSR8001-3A1B is a safety relay module. The internal circuit design with the FailSafe technology could achieve SIL3 in accordance with IEC61508. Force guided relays are used in the output circuit in order to prevent contacts welding.

Dimension(L×H×W)：114.5mm×99.0mm×22.5mm

Features

Several contacts output
Low start-up inrush current

Block diagram



CZSR8001-3A1B

Technichal Data

Power data:
- Supply voltage：24V DC/AC
- Voltage tolerance：0.85~1.1
- Current consumption：⩽90mA (24V DC)

Input data:
- Input current：⩽50mA (24V DC)
- Cable resistance：⩽15Ω
- Input devices：SIS controller DIO signals input

Output data:
- Number of contacts：**3NO+1NC**
- Contact material：$AgSnO_2$ + 0.2 μm Au
- Contact fuse protection：
  10A gL/gG NEOZED (NO); 6A gL/gG NEOZED (NC)
- Utilisation category：AC-15, 5A/230V; DC-13, 5A/24V
  (In accordance with EN60947-5-1)

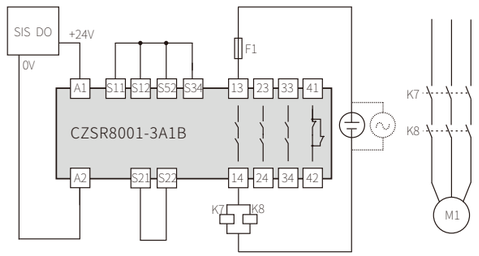
Time data:
- Switch-on delay：⩽300ms
- Delay-on de-energisation：⩽30ms
- Recovery time：⩽100ms
- Supply short interruption：20ms

Environmental data:
- EMC：EN60947, EN61000-6-2, EN61000-6-4
- Vibration：Vibration frequency: 10Hz~55Hz;
  Vibration amplitude: 0.35mm
- Ambient temperature：-20°C~+60°C
- Storage temperature：-40°C~+85°C
- Relative humidity：10%~90%

Insulation data:
- Overvoltage category：III
- Pollution degree：2
- Rated insulation voltage：250V AC
- Rated impulse voltage：6000V (1.2/50us)
- Dielectric strength：1500V AC, 1min
- Clearance and creepage distance：In accordance with EN 60947-1

Certification:
- Safety integrity level：SIL3
- Performance level：PLe
- Category：Cat.4

Application（SIS System）



- SIS controller DO signals input
- Auto reset

Model

CZSR8001-2A2B

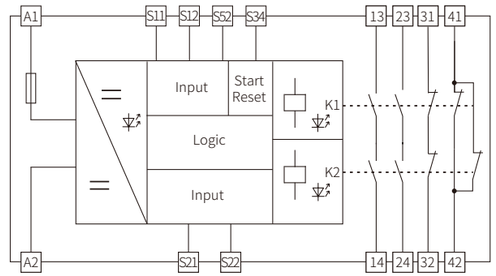
CZSR8001-2A2B is a safety relay module. The internal circuit design with the FailSafe technology could achieve SIL3 in accordance with IEC61508. Force guided relays are used in the output circuit in order to prevent contacts welding.

Dimension(L×H×W)：114.5mm×99.0mm×22.5mm

Features

Several contacts output
Low start-up inrush current

Block diagram



CZSR8001-2A2B

Technichal Data

Power data:
- Supply voltage：24V DC/AC
- Voltage tolerance：0.85~1.1
- Current consumption：⩽90mA (24V DC)

Input data:
- Input current：⩽50mA (24V DC)
- Cable resistance：⩽15Ω
- Input devices：SIS controller DIO signals input

Output data:
- Number of contacts：**2NO+2NC**
- Contact material：$AgSnO_2$ + 0.2 μm Au
- Contact fuse protection：
  10A gL/gG NEOZED (NO); 6A gL/gG NEOZED (NC)
- Utilisation category：AC-15, 5A/230V; DC-13, 5A/24V
  (In accordance with EN60947-5-1)

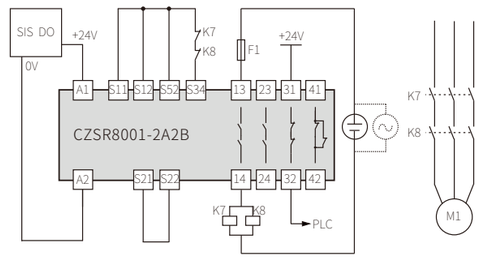
Time data:
- Switch-on delay：⩽300ms
- Delay-on de-energisation：⩽30ms
- Recovery time：⩽100ms
- Supply short interruption：20ms

Environmental data:
- EMC：EN60947, EN61000-6-2, EN61000-6-4
- Vibration：Vibration frequency: 10Hz~55Hz; Vibration amplitude: 0.35mm
- Ambient temperature：-20°C~+60°C
- Storage temperature：-40°C~+85°C
- Relative humidity：10%~90%

Insulation data:
- Overvoltage category：III
- Pollution degree：2
- Rated insulation voltage：250V AC
- Rated impulse voltage：6000V (1.2/50us)
- Dielectric strength：1500V AC, 1min
- Clearance and creepage distance：In accordance with EN 60947-1

Certification:
- Safety integrity level：SIL3
- Performance level：PLe
- Category：Cat.4

Application（SIS System）



- SIS controller DO signals input
- Auto reset
- Output with EDM
- State diagnosis and feedback