

Safety Relay czSR Classic Series

Support Multiple Input Devices

SIL3 PLe Cat.4 | TÜV Rheinland | G3 anti-corrosion



【Factory video @Youtube】

CZYB-E15-C.04/2022.10

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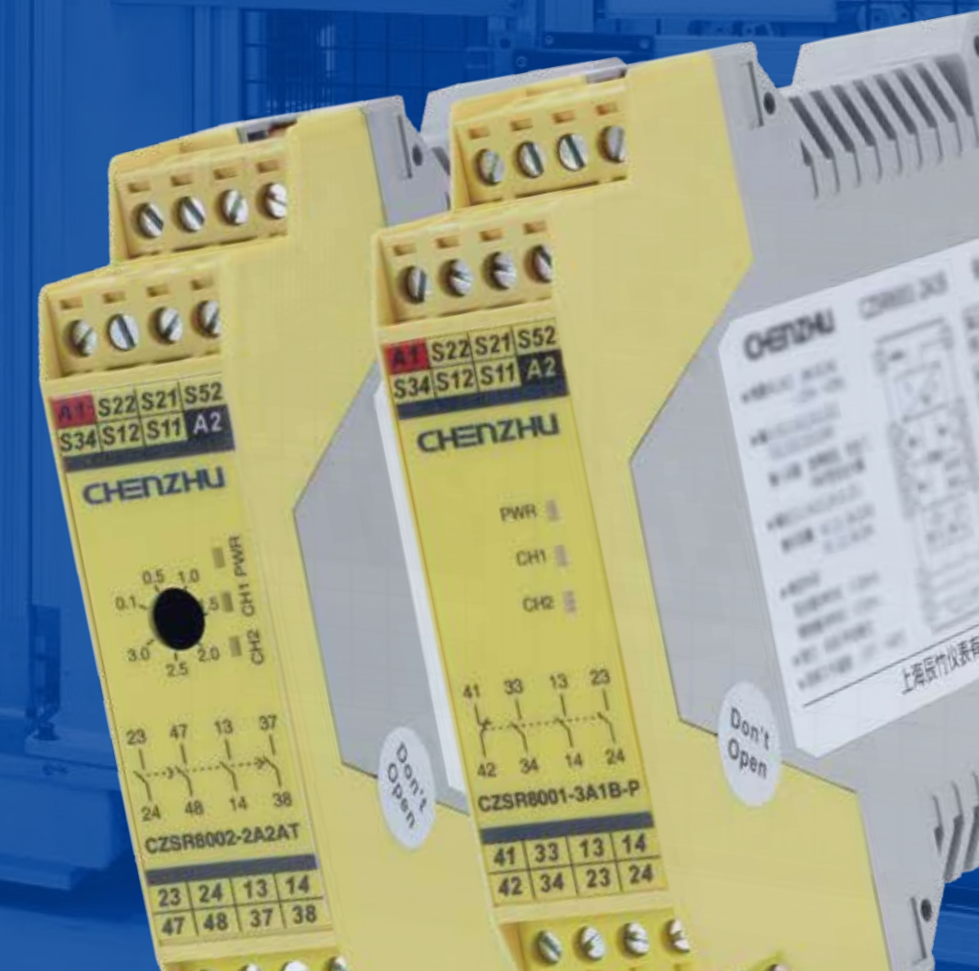
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CHENZHU COMPANY OVERVIEW



Shanghai Chenzhu Instrument Co., Ltd. was founded in April, 2002, who was originated 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 safety products, such as isolated barriers, signal conditioners, surge protective devices, safety relays etc.

MANAGEMENT SYSTEMS



ISO9001



ISO14001



ISO45001



IECEx QUALITY ASSESSMENT

R&D Strength

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%
Work Force



R&D Investment

11%
of Sale Revenue



Innovation

110+
Patents



Testing Facility

80+
Capabilities

Smart Factory

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.



Factory

3500m²
In total



Max Cap.

2,000,000pcs
Year

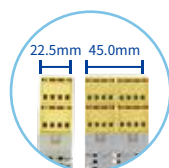


Lean Production

10+
Years' experience



CZSR Classic Serise Safety Relay Overview



Two type housings
Ultra-thin 22.5mm and 45mm



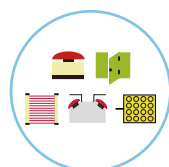
G3 anti-corrosion
Protect the Printed Circuit Board



Easy Wiring
Power, input, and output are distinguished by red&black, yellow and white



Easy plugging
Pluggable terminal blocks make wiring easy













Multiple Input Devices
E-stop buttons | Safety gates
Light beam devices | Safety mats
Two-hand control buttons



Quick Search
Scanning the QR code and check product datasheet

CZSR Classic Series Safety Relay Product List

Input Devices	Model	Power	Reset Mode	Relay Output				Transistor output	Page
				N/O		N/C			
									
 	CZSR8001-3A1B	24V DC/AC	Auto / Manual	3	-	1	-	-	5
	CZSR8001-3A1B(M)	24V DC/AC	Monitored Manual	3	-	1	-	-	6
	CZSR8001-2A1B	24V DC/AC	Auto / Manual	2	-	1	-	-	7
	CZSR8001-2A1B3AT1BT	24V DC/AC	Auto / Manual	2	3	1	1	-	8
	CZSR8002-2A2AT	24V DC	Auto / Manual	2	2	-	-	-	9
	CZSR8002-2A2AT(M)	24V DC	Monitored Manual	2	2	-	-	-	10
	CZSR8003-3A1B	230V AC	Auto / Manual	3	-	1	-	-	11
	CZSR8001-3A1B-P	24V DC	Auto / Manual	3	-	1	-	-	12
	CZSR8101-3A1B-N	24V DC	Auto / Manual	3	-	1	-	-	13
	CZSR8201-3A1B	24V DC/AC	-	3	-	1	-	-	14
	CZSR8301-3A1B	24V DC/AC	Auto / Manual	3	-	1	-	-	15
	CZSR8301-3A1B(M)	24V DC/AC	Monitored Manual	3	-	1	-	-	16
	CZSR8302-3A1B	24V DC/AC	Universal	3	-	1	-	-	17
	CZSR8302-2A1B1S	24V DC/AC	Universal	2	-	1	-	1	18
	CZSR8302-2AT1BT1S	24V DC/AC	Universal	-	2	-	1	1	19
	CZSR8303-3A1B	230V AC	Universal	3	-	1	-	-	20
	CZSR8801-4A2B	24V DC	-	4	-	2	-	-	21
	CZSR8801-8A4B	24V DC	-	8	-	4	-	-	22

Model
CZSR8001-3A1B

CZSR8001-3A1B is suitable for the application of E-STOP button and safety gate, with 3 safety output contacts (N/O) and 1 auxiliary output contact (N/C). It can be operated in single or double channel mode, manual or automatic reset, and with the function of monitoring the short circuit between channels.

Product Features

- Single or double channel mode
- Manual or automatic reset
- Monitoring the short circuit between channels

Specification

- Power**
- Supply voltage: 24V DC / AC
 - Voltage tolerance: 0.85 ~ 1.1
 - AC frequency: 50Hz ~ 60Hz
 - Current consumption: ≤90mA (24V DC); ≤240mA (24V AC)
- Input**
- Input current: ≤50mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: E-STOP Button, Safety Gate
- Output**
- Number of contacts: 3NO + 1NC
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time
- Times**
- Switch-on delay: with automatic reset: ≤300ms;
with manual reset: ≤150ms
 - Delay-on de-energisation: with E-STOP: ≤30ms;
with power failure: ≤100ms
 - Recovery time: after E-STOP: ≤30ms; after power failure: ≤100ms
 - Supply interruption before de-energisation: 20ms
- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- 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: In accordance with EN 60947-1
- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



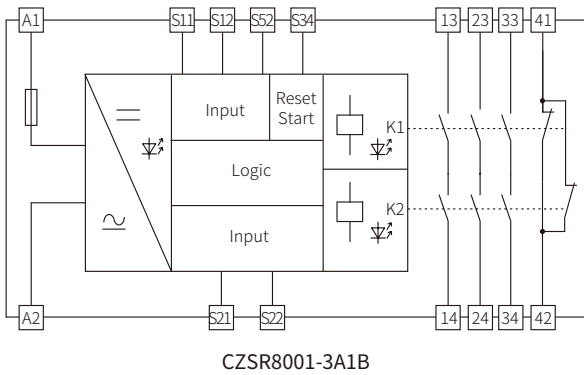
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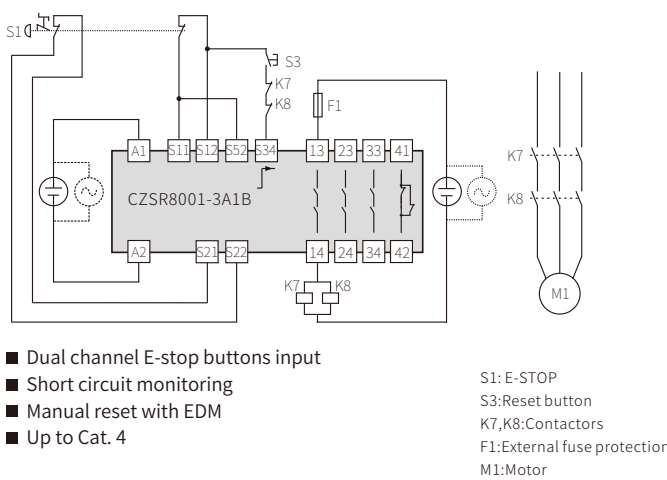


Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



Typical Application



- Dual channel E-stop buttons input
- Short circuit monitoring
- Manual reset with EDM
- Up to Cat. 4

S1: E-STOP
S3: Reset button
K7, K8: Contactors
F1: External fuse protection
M1: Motor

Model
CZSR8001-3A1B(M)

CZSR8001-3A1B(M) is suitable for the application of E-STOP button and safety gate, with 3 safety output contacts (N/O) and 1 auxiliary output contact (N/C). It can be operated in single or double channel mode, reset button, and with the function of monitoring the short circuit between channels.

Product Features

- Single or double channel mode
- Monitored Manual Reset
- Monitoring the short circuit between channels

Specification

- Power**
- Supply voltage: 24V DC / AC
 - Voltage tolerance: 0.85 ~ 1.1
 - AC frequency: 50Hz ~ 60Hz
 - Current consumption: ≤90mA (24V DC); ≤240mA (24V AC)
- Input**
- Input current: ≤50mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: E-STOP Button, Safety Gate
- Output**
- Number of contacts: 3NO + 1NC
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time
- Times**
- Switch-on delay: with manual reset: ≤150ms
 - Delay-on de-energisation: with E-STOP: ≤30ms;
with power failure: ≤100ms
 - Recovery time: after E-STOP: ≤30ms;
after power failure: ≤100ms
 - Supply interruption before de-energisation: 20ms
- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- 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: In accordance with EN 60947-1
- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4

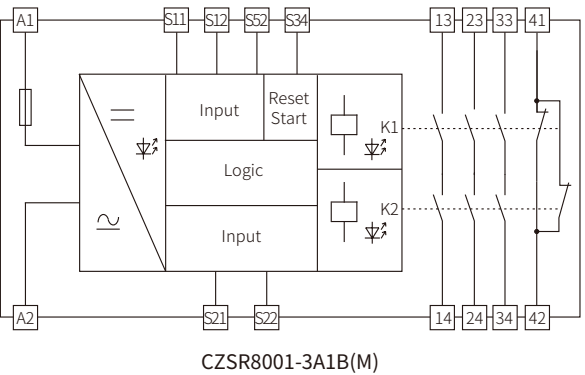
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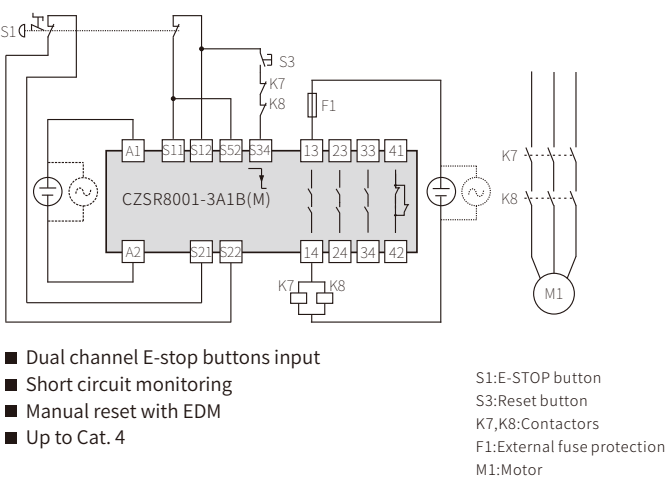


Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



Typical Application



- Dual channel E-stop buttons input
- Short circuit monitoring
- Manual reset with EDM
- Up to Cat. 4

S1: E-STOP button
S3: Reset button
K7, K8: Contactors
F1: External fuse protection
M1: Motor

Model
CZSR8001-2A1B

CZSR8001-2A1B is suitable for the application of E-STOP button, safety gate and PNP-type light curtain, with 2 safety output contacts (N/O) and 1 auxiliary output contact (N/C). It can be operated in single or double channel mode, manual or automatic reset, and with the function of monitoring the short circuit between channels.

Product Features

- Single or double channel mode
- Manual or automatic reset
- Monitoring the short circuit between channels

Specification

- Power**
- Supply voltage: 24V DC / AC
 - Voltage tolerance: 0.85 ~ 1.1
 - AC frequency: 50Hz ~ 60Hz
 - Current consumption: ≤90mA (24V DC); ≤240mA (24V AC)
- Input**
- Input current: ≤50mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: E-STOP Button, Safety Gate、PNP-type light curtain
- Output**
- Number of contacts: 2NO + 1NC
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time
- Times**
- Switch-on delay: with automatic reset: ≤300ms;
with manual reset: ≤150ms
 - Delay-on de-energisation: with E-STOP: ≤30ms;
with power failure: ≤100ms
 - Recovery time: after E-STOP: ≤30ms; after power failure: ≤100ms
 - Supply interruption before de-energisation: 20ms
- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- Overvoltage category: II
 - Pollution degree: 2
 - Rated insulation voltage: 250V AC
 - Rated impulse voltage: 4000V (1.2/50us)
 - Dielectric strength: 1500V AC, 1min
 - Clearance and creepage: In accordance with EN 60947-1
- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



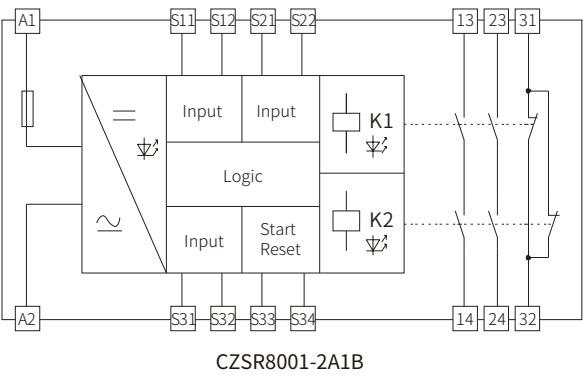
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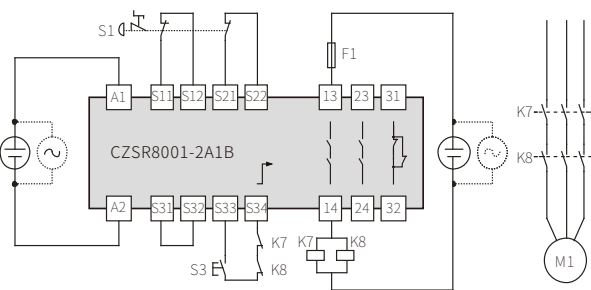


Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



Typical Application



- Dual channel E-stop buttons input
- Short circuit monitoring
- Manual reset with EDM
- Up to Cat. 4

S1:E-STOP button
S3:Reset button
K7,K8:Contactors
F1:External fuse protection
M1:Motor

Model
CZSR8001-2A1B3AT1BT

CZSR8001-2A1B3AT1BT is suitable for the application of E-STOP button, safety gate and PNP-type light curtain, with 2 safety output contacts (N/O) and 1 auxiliary output contact (N/C). It can be operated in single or double channel mode, manual or automatic reset, and with the function of monitoring the short circuit between channels.

Product Features

- Single or double channel mode
- Manual or automatic reset
- Monitoring the short circuit between channels

Specification

- Power**
- Supply voltage: 24V DC / AC
 - Voltage tolerance: 0.85 ~ 1.1
 - AC frequency: 50Hz ~ 60Hz
 - Current consumption: ≤170mA (24V DC); ≤400mA (24V AC)
- Input**
- Input current: ≤50mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: E-STOP Button, Safety Gate、PNP-type light curtain
- Output**
- Number of contacts: 2NO + 1NC + 3NO(t) + 1NC(t)
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time
- Times**
- Switch-on delay: with automatic reset: ≤300ms;
with manual reset: ≤150ms
 - Delay-on de-energisation: with E-STOP(instantaneous): ≤30ms
with E-STOP(delayed): ≤30ms (instantaneous)
delayed time: 0s, 3s, 6s, 9s, 12s, 15s (Delaed factory set as 5s)
with power failure: ≤100ms
 - Recovery time: after E-STOP: ≤30ms; after power failure: ≤100ms
 - Supply interruption before de-energisation: 20ms
- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- Overvoltage category: II
 - Pollution degree: 2
 - Rated insulation voltage: 250V AC
 - Rated impulse voltage: 4000V (1.2/50us)
 - Dielectric strength: 1500V AC, 1min
 - Clearance and creepage: In accordance with EN 60947-1
- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



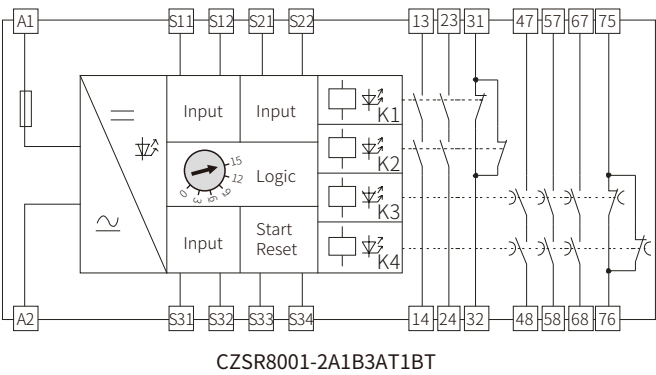
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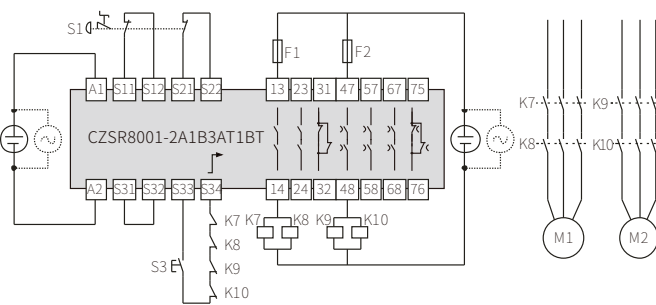


Dimensions(L×H×W): 114.5mm×99.0mm×45.0mm

Block Diagram



Typical Application



- Dual channel E-stop buttons input
- Short circuit monitoring
- Manual reset with EDM
- Up to Cat. 4

S1:E-STOP
S3:Reset button
K7,K8,K9,K10:Contactors
F1,F2:External fuse protection
M1,M2:Motor

Model
CZSR8002-2A2AT

CZSR8002-2A2AT is suitable for the application of E-Stop button and safety gate, with 2 safety output contacts (instantaneous) and 2 safety output contacts (delayed). It can be operated in single or double channel mode, manual or automatic reset, and the function of monitoring the short circuit between channels.

Product Features

- Single or double channel mode
- Manual or automatic reset
- Monitoring the short circuit between channels

Specification

- Power**
- Supply voltage: 24V DC
 - Voltage tolerance: 0.85 ~ 1.1
 - Current consumption: ≤130mA (24V DC)
- Input**
- Input current: ≤50mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: E-STOP Button, Safety Gate
- Output**
- Number of contacts: 2NO + 2NO(t)
 - Contact material: AgSnO₂
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
 - Utilisation category (EN60947-5-1): AC-15, 3A/230V; DC-13, 3A/24V
 - Mechanical endurance: Over 10⁷ time
- Times**
- Switch-on delay: with automatic reset: ≤300ms;
with manual reset: ≤150ms
 - Delay-on de-energisation: with E-STOP: ≤30ms
with E-STOP(delayed): 0.1s ~ 3s(factory set as 3s)
 - with power failure: ≤100ms
 - Recovery time: after E-STOP: ≤30ms
after power failure: ≤100ms
 - Supply interruption before de-energisation: 20ms

- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- Overvoltage category: III
 - Pollution degree: 2
 - Rated insulation voltage: 250V AC
 - Rated impulse voltage: 4000V (1.2/50us)
 - Dielectric strength: 1500V AC, 1min
 - Clearance and creepage: In accordance with EN 60947-1

- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



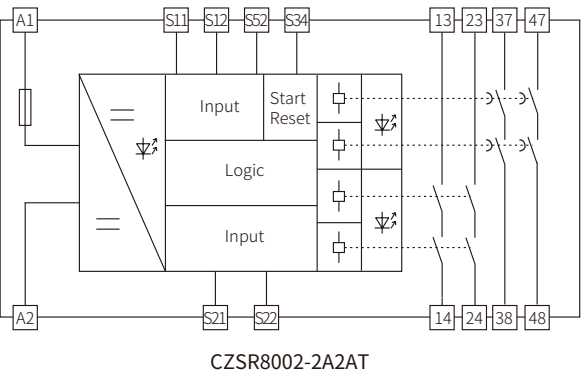
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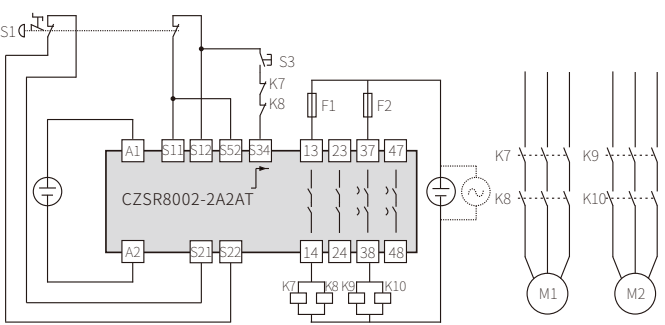


Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



Typical Application



- Dual channel E-stop buttons input
- Short circuit monitoring
- Manual reset with EDM
- Up to Cat. 4

S1:E-STOP
S3:Reset button
K7,K8,K9,K10:Contactors
F1,F2:External fuse protection
M1,M2:Motor

Model
CZSR8002-2A2AT(M)

CZSR8002-2A2AT(M) is suitable for the application of E-Stop button and safety gate , with 2 safety output contacts (instantaneous) and 2 safety output contacts (delayed). It can be operated in single or double channel mode, manual or automatic reset, and the function of monitoring the short circuit between channels.

Product Features

- Single or double channel mode
- Monitored manual reset
- Monitoring the short circuit between channels

Specification

- Power**
- Supply voltage: 24V DC
 - Voltage tolerance: 0.85 ~ 1.1
 - Current consumption: ≤130mA (24V DC)
- Input**
- Input current: ≤50mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: E-STOP Button, Safety Gate
- Output**
- Number of contacts: 2NO + 2NO(t)
 - Contact material: AgSnO₂
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
 - Utilisation category (EN60947-5-1): AC-15, 3A/230V; DC-13, 3A/24V
 - Mechanical endurance: Over 10⁷ time
- Times**
- Switch-on delay: with manual reset: ≤150ms
 - Delay-on de-energisation: with E-STOP: ≤30ms
with E-STOP(delayed): 0.1s ~ 3s (factory set as 3s)
 - with power failure: ≤100ms
 - Recovery time: after E-STOP: ≤30ms
after power failure: ≤100ms
 - Supply interruption before de-energisation: 20ms

- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- Overvoltage category: III
 - Pollution degree: 2
 - Rated insulation voltage: 250V AC
 - Rated impulse voltage: 4000V (1.2/50us)
 - Dielectric strength: 1500V AC, 1min
 - Clearance and creepage: In accordance with EN 60947-1

- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



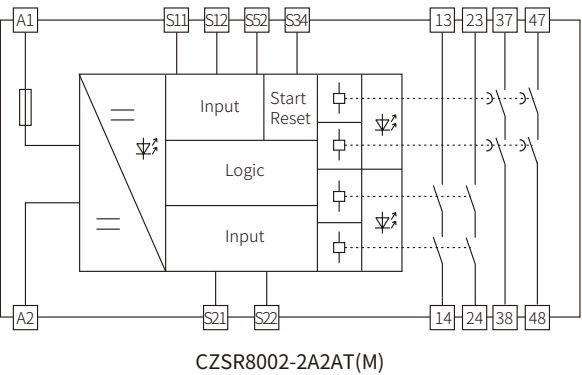
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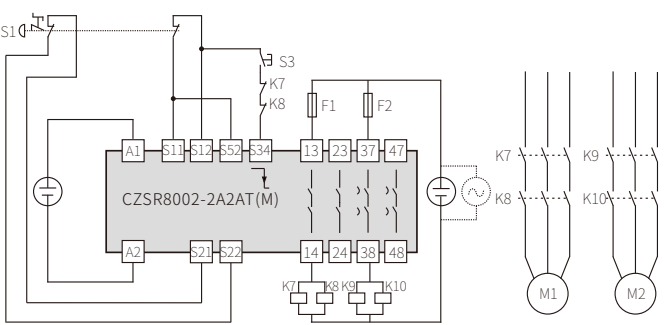


Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



Typical Application



- Dual channel E-stop buttons input
- Short circuit monitoring
- Manual reset with EDM
- Up to Cat. 4

S1:E-STOP button
S3:Reset button
K7,K8,K9,K10:Contactors
F1,F2:External fuse protection
M1,M2:Motor

Model
CZSR8003-3A1B

CZSR8003-3A1B is suitable for the application of E-STOP button and safety gate, with power supply of 220V AC and output of 3 safety output contacts (N/O) and 1 auxiliary output contact (N/C). It can be operated in single or dual channel mode, manual or automatic reset, and with the function of monitoring the short circuit between channels.

Product Features

- Single or double channel mode
- Manual or automatic reset
- Monitoring the short circuit between channels

Specification

- Power**
- Supply voltage: 100V ~ 230V AC
 - AC frequency: 50Hz ~ 60Hz
 - Power consumption: ≤7.0 VA
- Input**
- Input current: ≤50mA (220 V AC power supply)
 - Cable resistance: ≤15Ω
 - Input devices: E-STOP Button, Safety Gate
- Output**
- Number of contacts: 3NO + 1NC
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
- Times**
- Switch-on delay: with automatic reset: ≤300ms;
with manual reset: ≤150ms
 - Delay-on de-energisation: with E-STOP: ≤30ms;
with power failure: ≤300ms
 - Recovery time: after E-STOP: ≤30ms; after power failure: ≤500ms
 - Supply interruption before de-energisation: 20ms
- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- Overvoltage category: II
 - Pollution degree: 2
 - Rated insulation voltage: 250V AC
 - Rated impulse voltage: 6000V (1.2/50us)
 - Dielectric strength: 1500V AC, 1min
 - Clearance and creepage: In accordance with EN 60947-1
- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



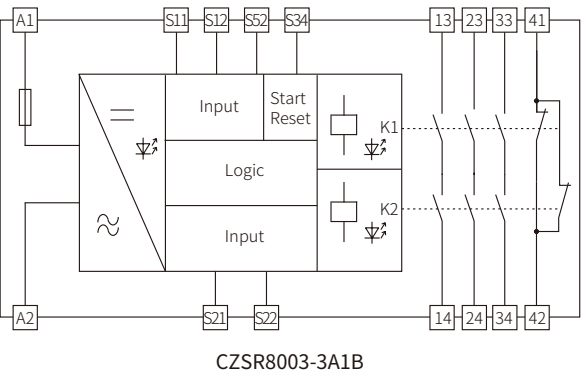
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Cat.4
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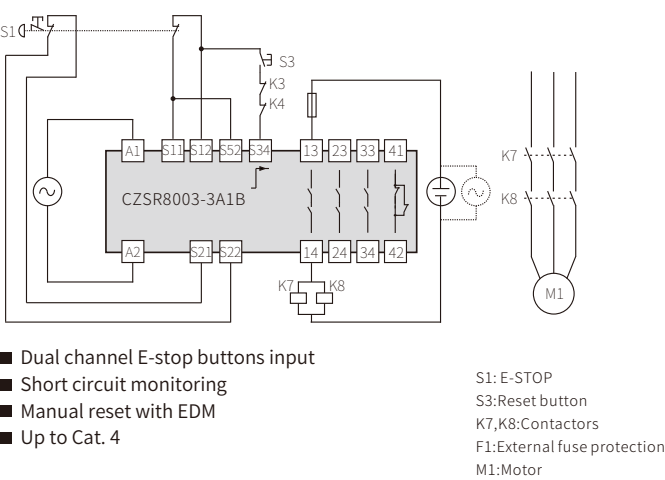


Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



Typical Application



- Dual channel E-stop buttons input
- Short circuit monitoring
- Manual reset with EDM
- Up to Cat. 4

S1: E-STOP
S3: Reset button
K7, K8: Contactors
F1: External fuse protection
M1: Motor

Model
CZSR8001-3A1B-P

CZSR8001-3A1B-P is suitable for the application of PNP-type light curtain, with output of 3 safety output contacts (N/O) and 1 auxiliary output contact (N/C). It can be operated in single or dual channel mode, manual or automatic reset.

Product Features

- Manual or automatic reset
- Monitoring the short circuit between channels

Specification

- Power**
- Supply voltage: 24V DC
 - Voltage tolerance: 0.85 ~ 1.1
 - Current consumption: ≤90mA (24V DC)
- Input**
- Input current: ≤50mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: PNP-type light curtain
- Output**
- Number of contacts: 3NO + 1NC
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time
- Times**
- Switch-on delay: with manual reset: ≤150ms;
with automatic reset: ≤300ms
 - Delay-on de-energisation: with E-STOP: ≤30ms;
with power failure: ≤100ms
 - Recovery time: after E-STOP: ≤30ms; after power failure: ≤100ms
 - Supply interruption before de-energisation: 20ms
- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- 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: In accordance with EN 60947-1
- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



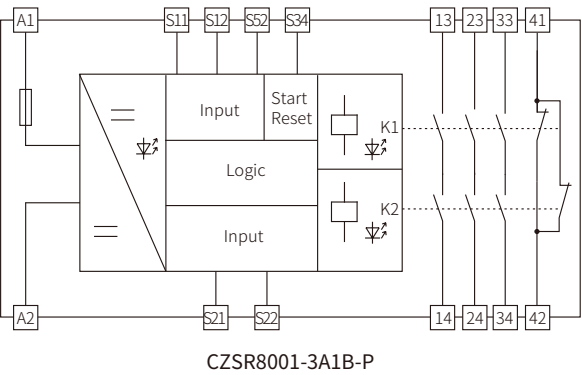
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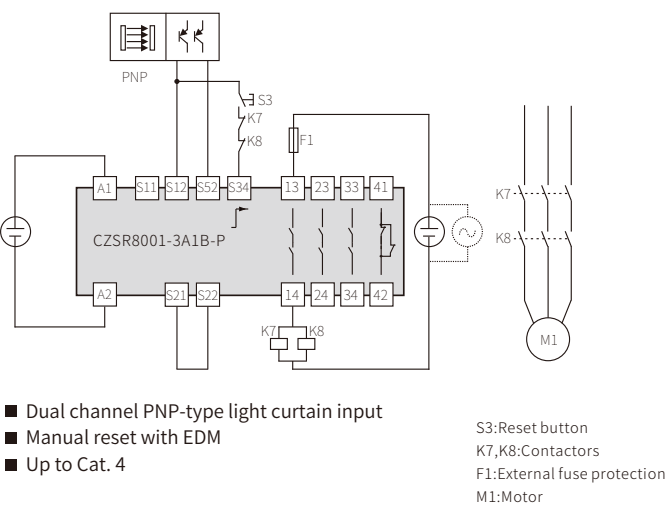


Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



Typical Application



- Dual channel PNP-type light curtain input
- Manual reset with EDM
- Up to Cat. 4

S3: Reset button
K7, K8: Contactors
F1: External fuse protection
M1: Motor

Model
CZSR8001-3A1B-N

CZSR8001-3A1B-N is suitable for the application of NPN-type light curtain, with output of 3 safety output contacts (N/O) and 1 auxiliary output contact (N/C). It can be operated in single or dual channel mode, manual or automatic reset.

Product Features

- Manual or automatic reset
- Monitoring the short circuit between channels

Specification

- Power**
- Supply voltage: 24V DC
 - Voltage tolerance: 0.85 ~ 1.1
 - Current consumption: ≤90mA (24V DC)
- Input**
- Input current: ≤50mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: NPN-type light curtain
- Output**
- Number of contacts: 3NO + 1NC
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time

- Times**
- Switch-on delay: with automatic reset: ≤300ms;
with manual reset: ≤150ms
 - Delay-on de-energisation: with E-STOP: ≤30ms;
with power failure: ≤100ms
 - Recovery time: after E-STOP: ≤30ms; after power failure: 100ms
 - Supply interruption before de-energisation: 20ms

- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- 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: In accordance with EN 60947-1

- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



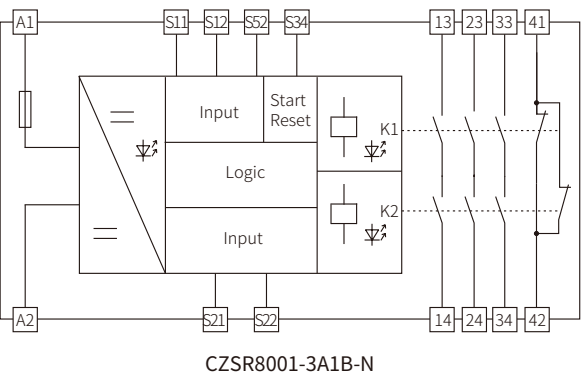
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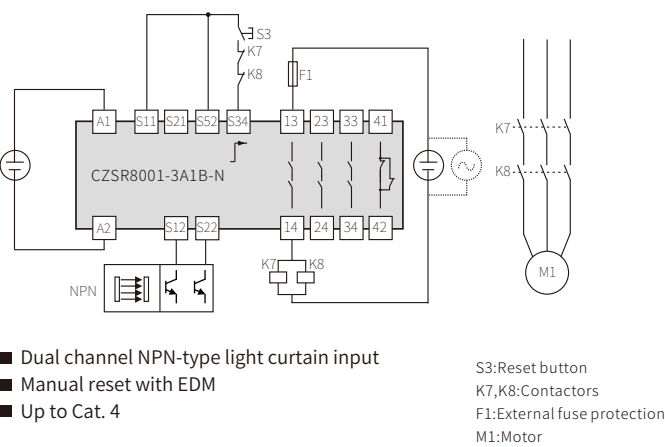


Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



Typical Application



- Dual channel NPN-type light curtain input
- Manual reset with EDM
- Up to Cat. 4

S3:Reset button
K7,K8:Contactors
F1:External fuse protection
M1:Motor

Model
CZSR8201-3A1B

CZSR8201-3A1B is suitable for the application of two-hand push buttons, with 3 safety output contacts (N/O) and 1 auxiliary output contact (N/C). It should be operated in double channel mode, with the simultaneity time of less than 500ms.

Product Features

- Double channel mode
- In accordance with EN574 Type IIIC

Specification

- Power**
- Supply voltage: 24V DC / AC
 - Voltage tolerance: 0.85 ~ 1.1
 - AC frequency: 50Hz ~ 60Hz
 - Current consumption: ≤60mA (24V DC); ≤140mA (24V AC)
- Input**
- Input current: ≤50mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: Two-hand push buttons
- Output**
- Number of contacts: 3NO + 1NC
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time

- Times**
- Switch-on delay: ≤30ms
 - Delay-on de-energisation: ≤15ms
 - Recovery time: ≤250ms
 - Simultaneity time: ≤500 ms (typ. 300 ms)
 - Supply interruption before de-energisation: 20ms

- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- 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: In accordance with EN 60947-1

- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



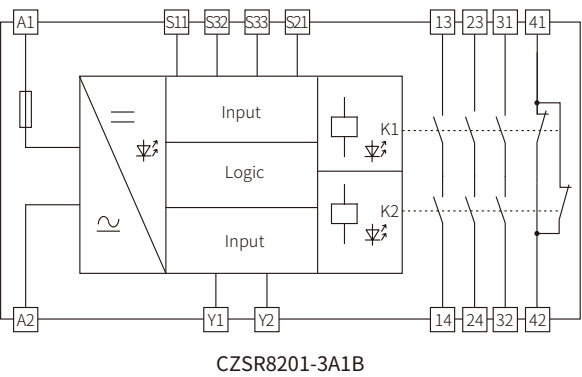
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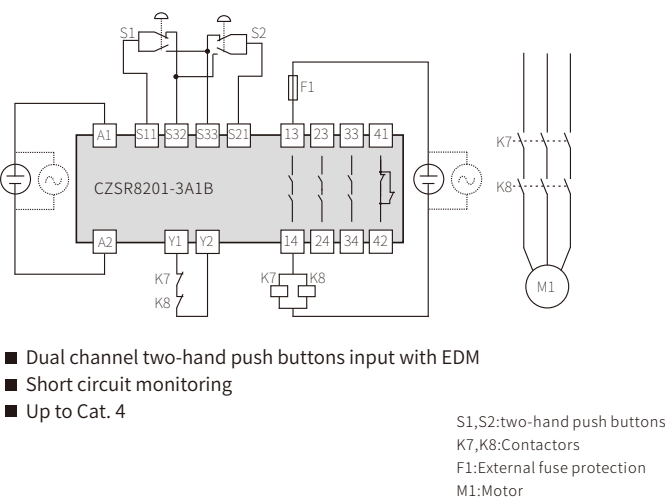


Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



Typical Application



- Dual channel two-hand push buttons input with EDM
- Short circuit monitoring
- Up to Cat. 4

S1,S2:two-hand push buttons
K7,K8:Contactors
F1:External fuse protection
M1:Motor

Model
CZSR8301-3A1B

CZSR8301-3A1B is suitable for the application of 4-wire safety mats, with 3 safety output contacts (N/O) and 1 auxiliary output contact (N/C). It can be operated in single or dual channel mode, manual or automatic reset.

Product Features

4-wire safety mats input
Manual or automatic reset

Specification

- Power**
- Supply voltage: 24V DC / AC
 - Voltage tolerance: 0.85 ~ 1.1
 - AC frequency: 50Hz ~ 60Hz
 - Current consumption: ≤90mA (24V DC); ≤240mA (24V AC)
- Input**
- Input current: ≤50mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: 4-wire safety mats
- Output**
- Number of contacts: 3NO + 1NC
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time
- Times**
- Switch-on delay: with automatic reset: ≤300ms;
with manual reset: ≤150ms
 - Delay-on de-energisation: with E-STOP: ≤30ms;
with power failure: ≤100ms
 - Recovery time: ≤300ms
 - Supply interruption before de-energisation: 20ms
- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- 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: In accordance with EN 60947-1
- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



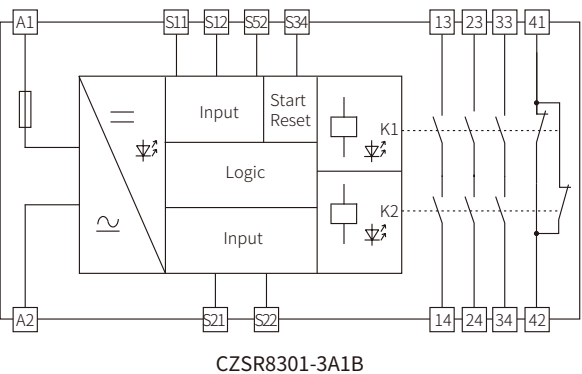
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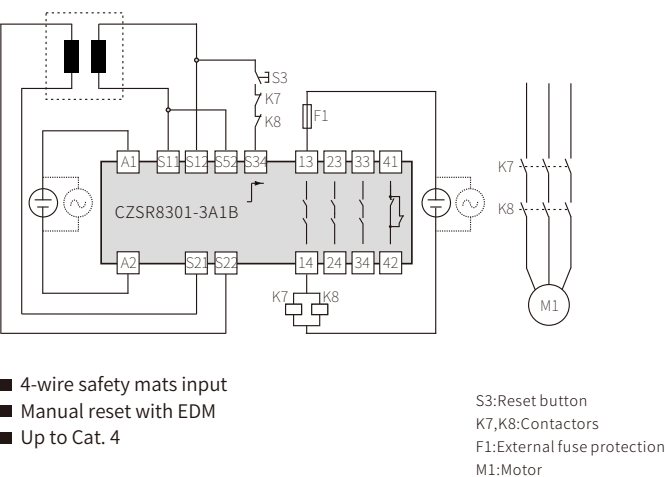


Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



Typical Application



Model
CZSR8301-3A1B(M)

CZSR8301-3A1B(M) is suitable for the application of 4-wire safety mats, with 3 safety output contacts (N/O) and 1 auxiliary output contact (N/C). It can be operated in dual channel mode and monitored manual reset.

Product Features

4-wire safety mats input
Monitored manual reset

Specification

- Power**
- Supply voltage: 24V DC / AC
 - Voltage tolerance: 0.85 ~ 1.1
 - AC frequency: 50Hz ~ 60Hz
 - Current consumption: ≤90mA (24V DC); ≤240mA (24V AC)
- Input**
- Input current: ≤50mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: 4-wire safety mats
- Output**
- Number of contacts: 3NO + 1NC
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time
- Times**
- Switch-on delay: with manual reset: ≤150ms
 - Delay-on de-energisation: with E-STOP: ≤30ms;
with power failure: ≤100ms
 - Recovery time: ≤300ms
 - Supply interruption before de-energisation: 20ms
- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- 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: In accordance with EN 60947-1
- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



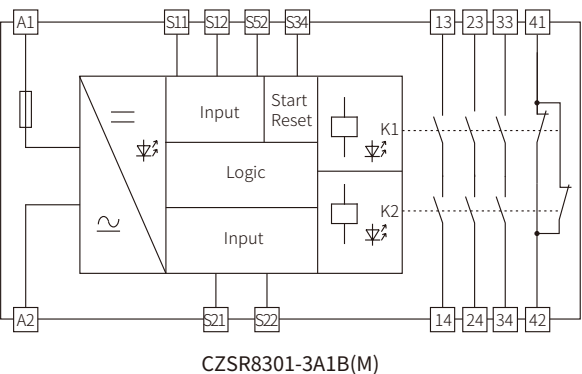
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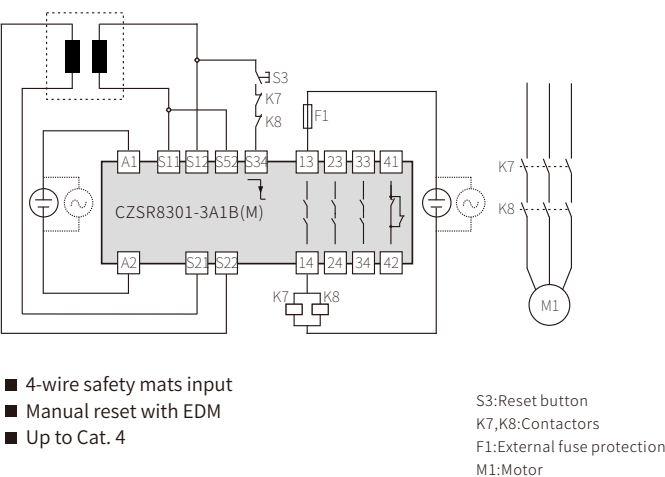


Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



Typical Application



Model
CZSR8302-3A1B

CZSR8302-3A1B is suitable for the application of 2-wire safety mats, with 3 safety output contacts (N/O) and 1 auxiliary output contact (N/C). It can be operated in monitored manual or automatic reset.

Product Features

2-wire safety mats input
Monitored manual reset
Automatic reset

Specification

- Power**
- Supply voltage: 24V DC / AC
 - Voltage tolerance: 0.85 ~ 1.1
 - AC frequency: 50Hz ~ 60Hz
 - Current consumption: ≤95mA (24V DC); ≤240mA (24V AC)
- Input**
- Input current: ≤10mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: 2-wire safety mats
- Output**
- Number of contacts: 3NO + 1NC
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time
- Times**
- Switch-on delay: with automatic reset: ≤300ms;
with manual reset: ≤150ms
 - Delay-on de-energisation: with E-STOP: ≤30ms;
with power failure: ≤100ms
 - Recovery time: with E-STOP: ≤30ms; with power failure: ≤100ms
 - Supply interruption before de-energisation: 20ms

- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- 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: In accordance with EN 60947-1

- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



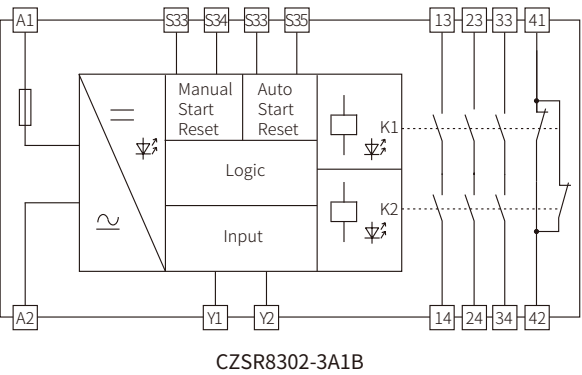
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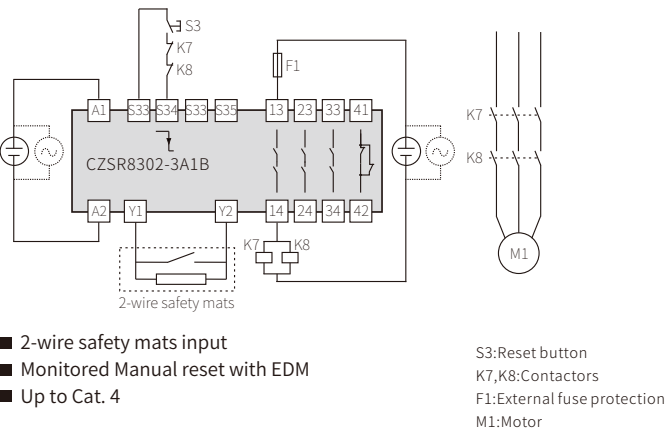


Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



Typical Application



- 2-wire safety mats input
- Monitored Manual reset with EDM
- Up to Cat. 4

S3:Reset button
K7,K8:Contactors
F1:External fuse protection
M1:Motor

Model
CZSR8302-2A1B1S

CZSR8302-2A1B1S is suitable for the application of 2/4-wire safety mats, with 2 safety output contacts (N/O) , and 1 auxiliary output contact (N/C), and 1 delay-on auxiliary output cntact of semiconductor. It can be operated in monitored manual or automatic reset.

Product Features

2/4-wire safety mats input
Monitored manual reset
Automatic reset

Specification

- Power**
- Supply voltage: 24V DC / AC
 - Voltage tolerance: 0.85 ~ 1.1
 - AC frequency: 50Hz ~ 60Hz
 - Current consumption: ≤120mA (24V DC); ≤300mA (24V AC)
- Input**
- Input current: ≤10mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: 2/4-wire safety mats(Terminal resistance: 1.0KΩ ~ 10KΩ)
- Output**
- Number of contacts: 2NO + 1NC
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time
- Times**
- Switch-on delay: with automatic reset: ≤300ms;
with manual reset: ≤150ms
 - Delay-on de-energisation: with E-STOP: ≤30ms;
with power failure: ≤100ms
 - Recovery time: with E-STOP: ≤30ms; with power failure: ≤100ms
 - Supply interruption before de-energisation: 20ms

- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- Overvoltage category: II
 - Pollution degree: 2
 - Rated insulation voltage: 250V AC
 - Rated impulse voltage: 4000V (1.2/50us)
 - Dielectric strength: 1500V AC, 1min
 - Clearance and creepage: In accordance with EN 60947-1

- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



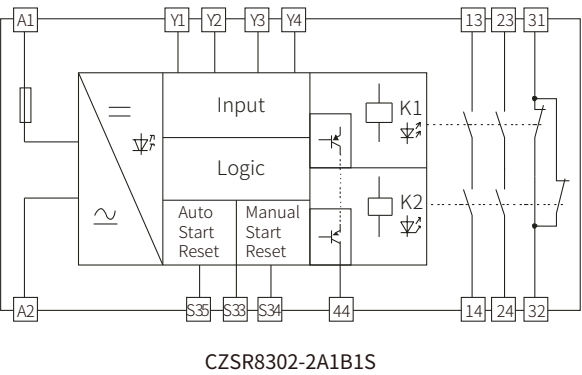
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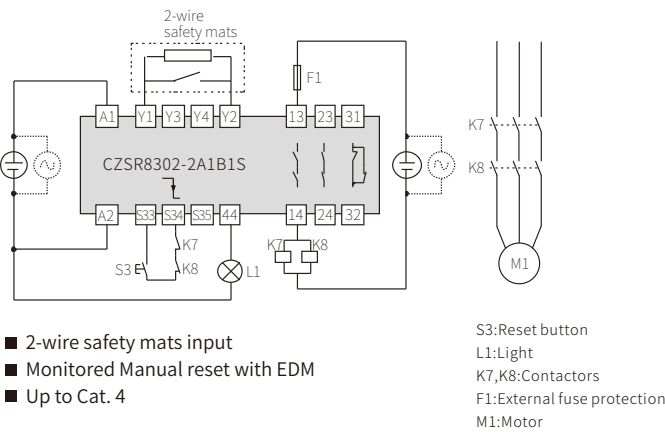


Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



Typical Application



- 2-wire safety mats input
- Monitored Manual reset with EDM
- Up to Cat. 4

S3:Reset button
L1:Light
K7,K8:Contactors
F1:External fuse protection
M1:Motor

Model
CZSR8302-2AT1BT1S

CZSR8302-2AT1BT1S is suitable for the application of 2/4-wire safety mats, with 2 safety output contacts (N/O) (can set the delay to disconnect), and 1 auxiliary output contact (N/C) (can set the delay to closed), and 1 delay-on auxiliary output cntact of semiconductor (momentary disconnect). It can be operated in monitored manual or automatic reset.

Product Features

2/4-wire safety mats input
Monitored manual reset
Automatic reset

Specification

- Power**
- Supply voltage: 24V DC / AC
 - Voltage tolerance: 0.85 ~ 1.1
 - AC frequency: 50Hz ~ 60Hz
 - Current consumption: ≤120mA (24V DC); ≤300mA (24V AC)
- Input**
- Input current: ≤10mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: 2/4-wire safety mats(Terminal resistance: 1.0KΩ ~ 10KΩ)
- Output**
- Number of contacts: 2NO(t) + 1NC(t)
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time

Semiconductor output data

- Number of semi-output: 1SO
- Driving ability: 20mA/24V DC

Times

- Switch-on delay: with automatic reset: ≤300ms;with manual reset: ≤150ms
- Delay-on de-energisation: with E-STOP: ≤30ms (instantaneous);
with power failure: ≤100ms
0s, 0.5s, 1s, 2s, 3s, 5s (Delated factory set as 5s)
- Recovery time: with E-STOP: ≤30ms; with power failure: ≤100ms
- Supply interruption before de-energisation: 20ms

Environmental Characteristics

- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
- 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 characteristic

- Overvoltage category: II
- Pollution degree: 2
- Rated insulation voltage: 250V AC
- Rated impulse voltage: 4000V (1.2/50us)
- Dielectric strength: 1500V AC, 1min
- Clearance and creepage: In accordance with EN 60947-1

Safety

- Safety integrity level (SIL): SIL3
- Performance level (PL): PLe
- Category (Cat.): Cat.4



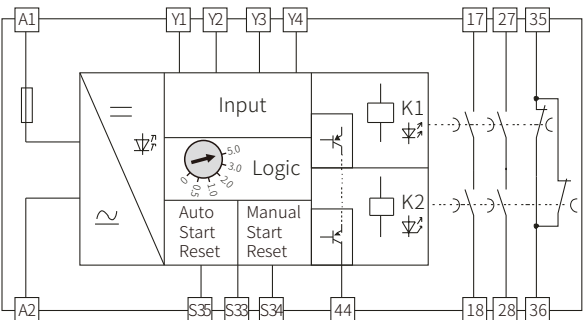
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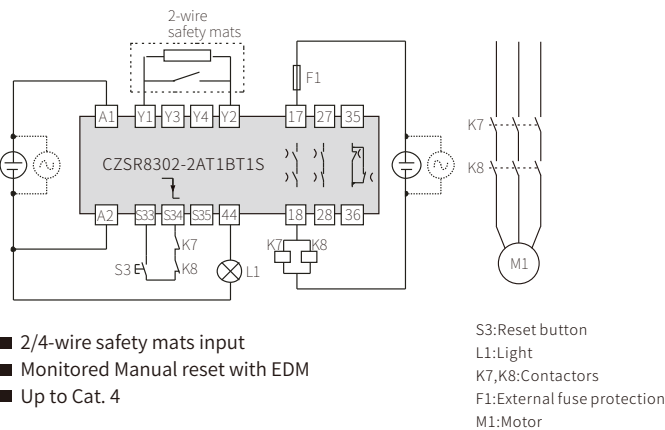
Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



CZSR8302-2AT1BT1S

Typical Application



- 2/4-wire safety mats input
- Monitored Manual reset with EDM
- Up to Cat. 4

S3:Reset button
L1:Light
K7,K8:Contactors
F1:External fuse protection
M1:Motor

Model
CZSR8303-3A1B

CZSR8303-3A1B is suitable for the application of 2-wire safety mat, with the power supply of 230V AC, and 3 safety output contacts (N/O) and 1 auxiliary output contact (N/C). It can be operated in automatic or monitored manual reset.

Product Features

2-wire safety mats input
Monitored manual reset
Automatic reset

Specification

- Power**
- Supply voltage: 100V ~ 230V AC
 - AC frequency: 50Hz ~ 60Hz
 - Current consumption: ≤7.0VA (220V AC)
- Input**
- Input current: ≤10mA (220V AC)
 - Cable resistance: ≤15Ω
 - Input devices: 2-wire safety mats
- Output**
- Number of contacts: 3NO + 1NC
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time

Times

- Switch-on delay: with automatic reset: ≤300ms;
with manual reset: ≤150ms
- Delay-on de-energisation: with E-STOP: ≤30ms;
with power failure: ≤300ms
- Recovery time: with E-STOP: ≤30ms; with power failure: ≤300ms
- Supply interruption before de-energisation: 20ms

Environmental Characteristics

- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
- 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 characteristic

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

Safety

- Safety integrity level (SIL): SIL3
- Performance level (PL): PLe
- Category (Cat.): Cat.4



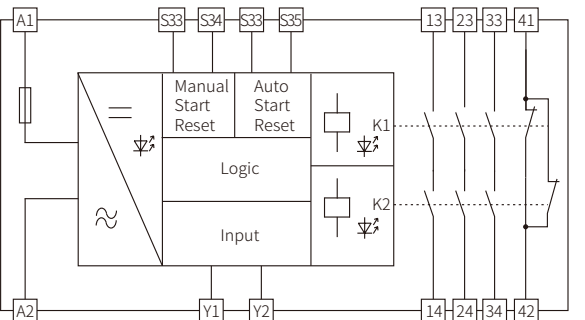
SIL3
IEC61508

PLe
Cat.4
EN/ISO13849



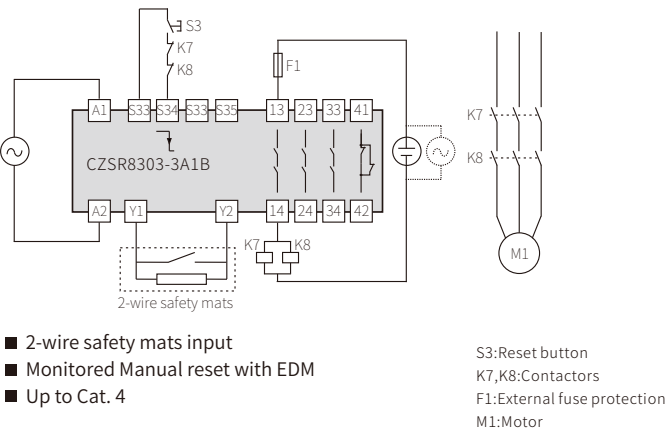
Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



CZSR8303-3A1B

Typical Application



- 2-wire safety mats input
- Monitored Manual reset with EDM
- Up to Cat. 4

S3:Reset button
K7,K8:Contactors
F1:External fuse protection
M1:Motor

Model
CZSR8801-4A2B

CZSR8801-4A2B is suitable for the application of output expansion, with 4 safety output contacts (N/O) and 2 auxiliary output contacts (N/C). The auxiliary output contacts can be used as output state indicator and failure feedback.

Product Features

- Output expansion
- Failure feedback output contacts

Specification

- Power**
- Supply voltage: 24V DC
 - Voltage tolerance: 20 ~ 30V DC
 - Current consumption: ≤70mA (24V DC)
- Input**
- Input current: ≤70mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: Safety switch, Contact switch
- Output**
- Number of contacts: 4NO + 2NC
 - Safety output: 13, 14; 23, 24; 33, 34; 43, 44
 - Auxiliary output: 11, 12 (State) Y1, Y2 (Feedback)
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time
- Times**
- Switch-on delay: ≤30ms
 - Delay-on de-energisation: ≤20ms
 - Recovery time: ≤100ms
 - Supply interruption before de-energisation: 20ms
- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- 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: In accordance with EN 60947-1
- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



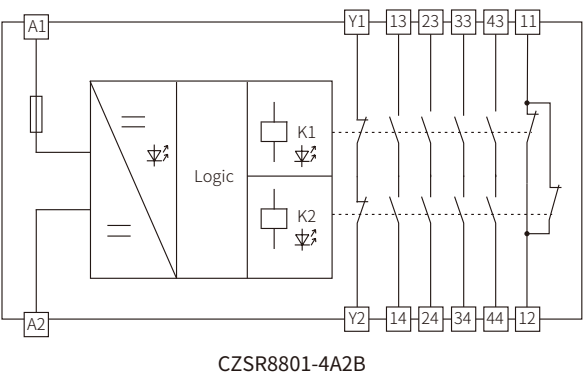
SIL3
IEC61508

PLe
Cat.4
EN/ISO13849

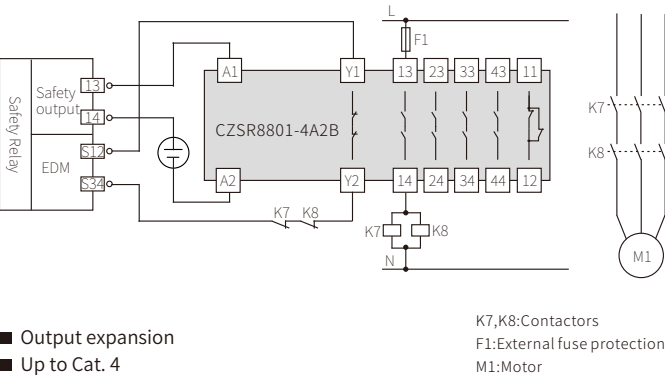


Dimensions(L×H×W): 114.5mm×99.0mm×22.5mm

Block Diagram



Typical Application



- Output expansion
- Up to Cat. 4

K7,K8:Contactors
F1:External fuse protection
M1:Motor

Model
CZSR8801-8A4B

CZSR8801-8A4B is suitable for the application of output expansion, with 8 safety output contacts (N/O) and 4 auxiliary output contacts (N/C). The auxiliary output contacts can be used as output state indicator and failure feedback.

Product Features

- Output expansion
- Failure feedback output contacts
- Independent double channel

Specification

- Power**
- Supply voltage: 24V DC
 - Voltage tolerance: 20 ~ 30V DC
 - Current consumption: ≤70mA (24 V DC, each channel)
- Input**
- Input current: ≤70mA (24V DC)
 - Cable resistance: ≤15Ω
 - Input devices: Safety switch, Contact switch
- Output**
- Number of contacts: 8NO + 4NC
 - Safety output: 13, 14; 23, 24; 33, 34; 43, 44; 53, 54; 63, 64; 73, 74; 83, 84
 - Auxiliary output: 11, 12; 21, 22 (State); Y1, Y2; Y3, Y4(Feedback)
 - Contact material: AgSnO₂ + 0.2μm Au
 - Contact type: Force guided
 - External contact fuse protection: 10A gL/gG, NEOZED(NO)
6A gL/gG, NEOZED(NC)
 - Utilisation category (EN60947-5-1): AC-15, 5A/230V; DC-13, 5A/24V
 - Mechanical endurance: Over 10⁷ time
- Times**
- Switch-on delay: ≤30ms
 - Delay-on de-energisation: ≤20ms
 - Recovery time: ≤100ms
 - Supply interruption before de-energisation: 20ms
- Environmental Characteristics**
- EMC: In accordance with EN60947, EN61000-6-2, EN61000-6-4
 - 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 characteristic**
- 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: In accordance with EN 60947-1
- Safety**
- Safety integrity level (SIL): SIL3
 - Performance level (PL): PLe
 - Category (Cat.): Cat.4



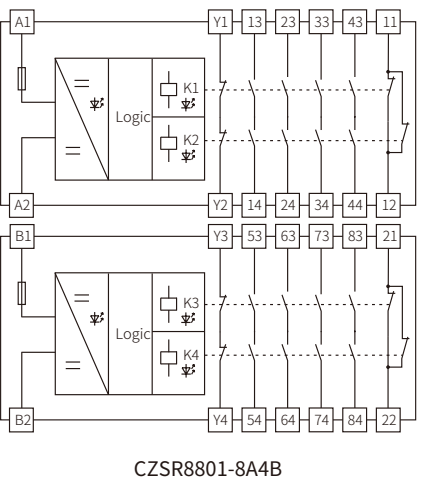
SIL3
IEC61508

PLe
Cat.4
EN/ISO13849

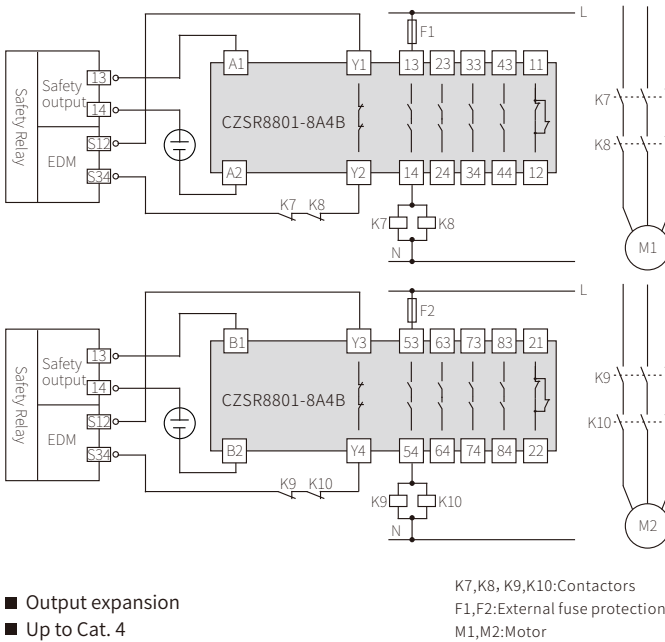


Dimensions(L×H×W): 114.5mm×99.0mm×45.0mm

Block Diagram



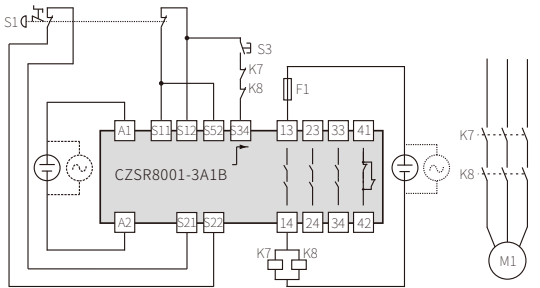
Typical Application



- Output expansion
- Up to Cat. 4

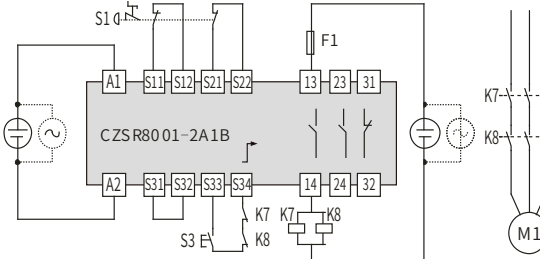
K7,K8, K9,K10:Contactors
F1,F2:External fuse protection
M1,M2:Motor

CZSR8001-3A1B



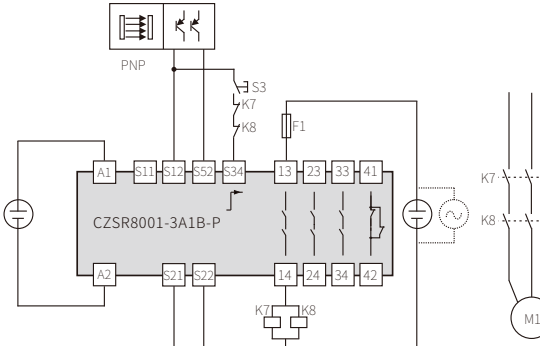
- Dual channel E-stop buttons input
- Short circuit monitoring
- Manual reset
- Output with EDM
- Up to Cat.4

CZSR8001-2A1B



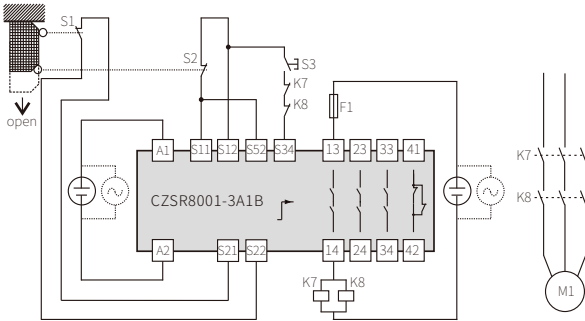
- Dual channel E-stop buttons input
- Short circuit monitoring
- Manual reset
- Output with EDM
- Up to Cat.4

CZSR8001-3A1B-P



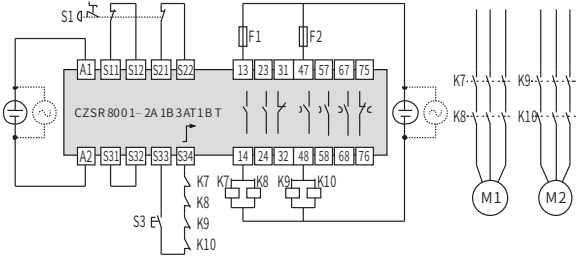
- Dual channel PNP type light beam devices input
- Manual reset
- Output with EDM
- Up to Cat.4

CZSR8001-3A1B



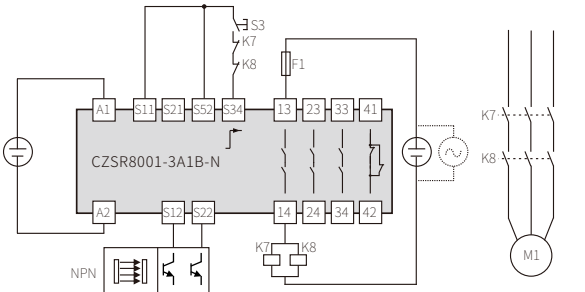
- Dual channel safety gates input
- Short circuit monitoring
- Manual reset
- Output with EDM
- Up to Cat.4

CZSR8001-2A1B3AT1BT



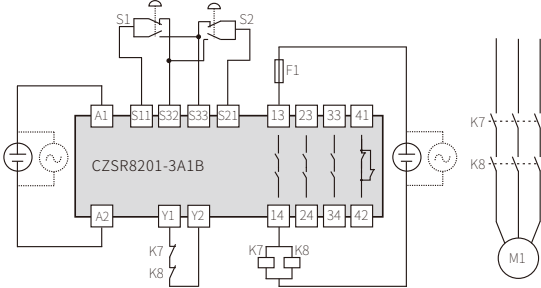
- Dual channel E-stop buttons input
- Short circuit monitoring
- Manual reset
- 4 delay-on contact
- Output with EDM
- Up to Cat.4

CZSR8101-3A1B-N



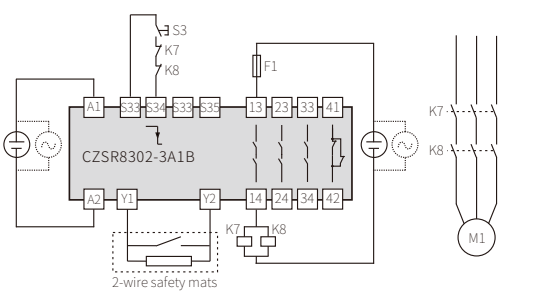
- Dual channel NPN type light beam devices input
- Manual reset
- Output with EDM
- Up to Cat.4

CZSR8201-3A1B



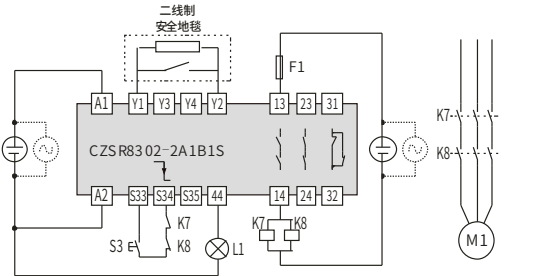
- Two-hand control buttons input
- In accord with EN574 type III C
- Output with EDM
- Up to Cat.4

CZSR8302-3A1B



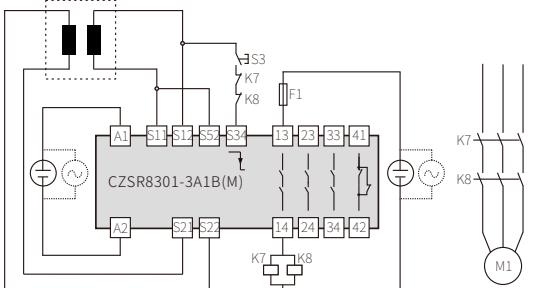
- 2-wire safety mats input
- Monitored manual reset
- Output with EDM
- Up to Cat.4

CZSR8302-2A1B1S



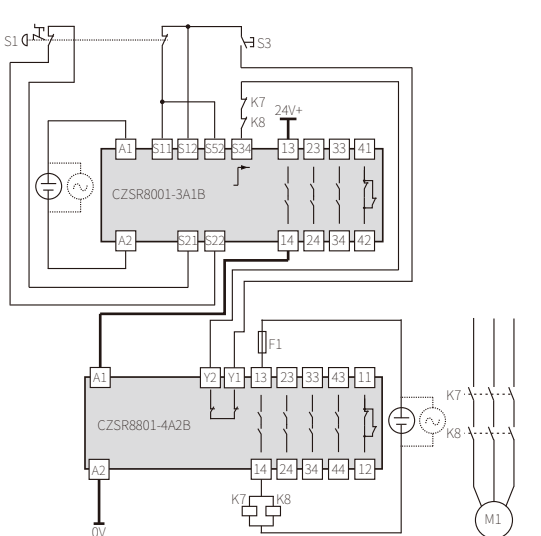
- 2-wire safety mats input
- Monitored manual reset
- Output with EDM
- Up to Cat.4
- 1 delay-on auxiliary output contact of semiconductor

CZSR8301-3A1B(M)



- 4-wire safety mats input
- Monitored manual reset
- Output with EDM
- Up to Cat.4

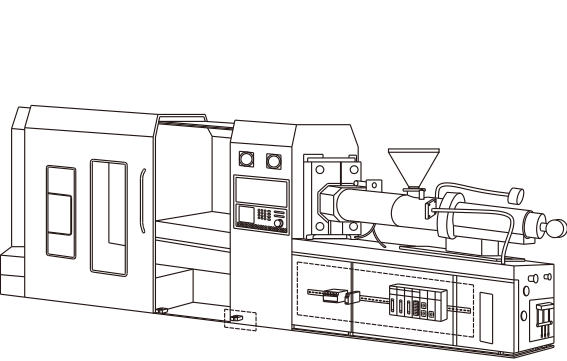
CZSR8801-4A2B



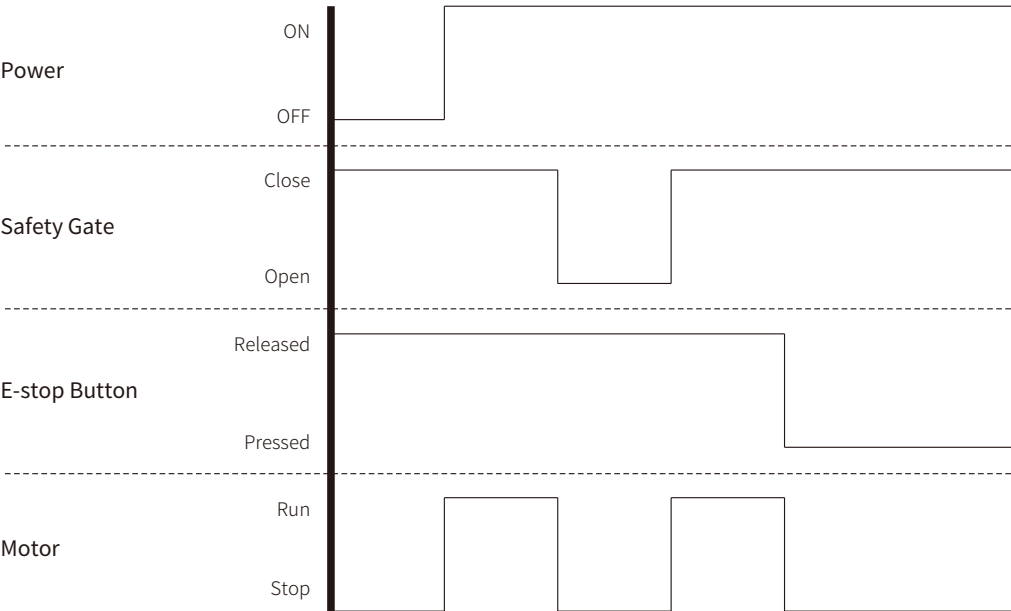
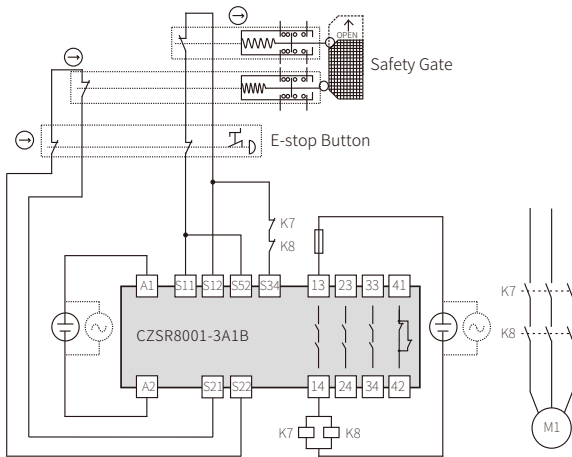
- Output extension (CZSR8001-3A1B used as main controller)
- Manual reset
- Output with EDM
- Up to Cat.4

S3: Reset buttons
K7,K8,K9,K10: Contactors
F1,F2: External protective fuse
M1,M2: Motor

Wiring diagram I : Injection Moulding Machine

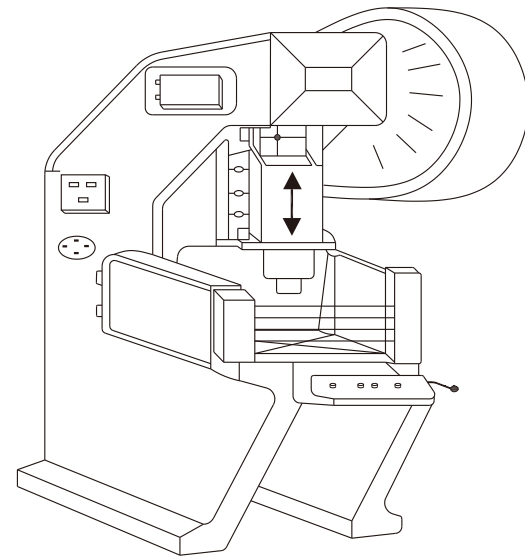


Wiring Instructions

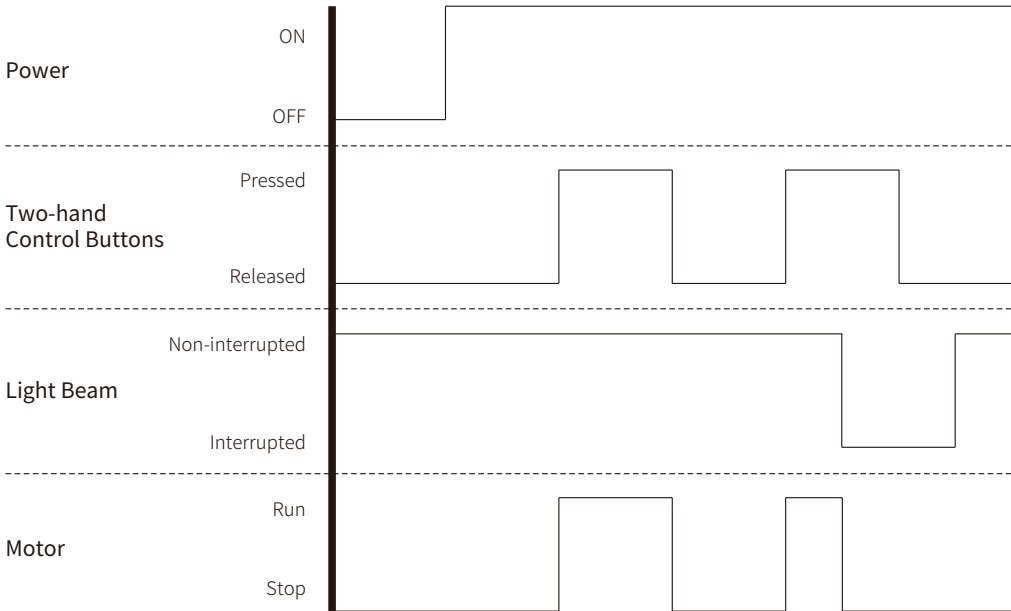
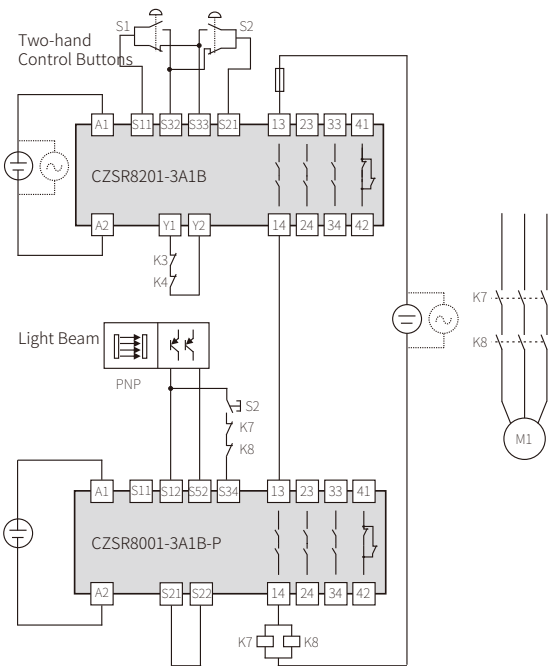


The safety control system of injection moulding machine is consisted of safety gate, E-stop button and safety relay. The hazard is mainly from the squeeze of mould-shutting action. The hazard area is isolated from the operators via safety gate. When the safety gate is closed, the mould-shutting action starts (motor runs). Once the safety gate is opened, the mould-shutting action stops (motor stops).

Application II : Punch Machine



Wiring Instructions



The safety control system of punch machine is consisted of two-hand control buttons, light beam and safety relay. The hazard is mainly from the punching action. The operator activate the punching operation via two-hand control buttons. The light beam is used to prevent the human body from entering the action area of the punch machine.