

# SAFETY RELAYS

Motors

**Automation**

Energy

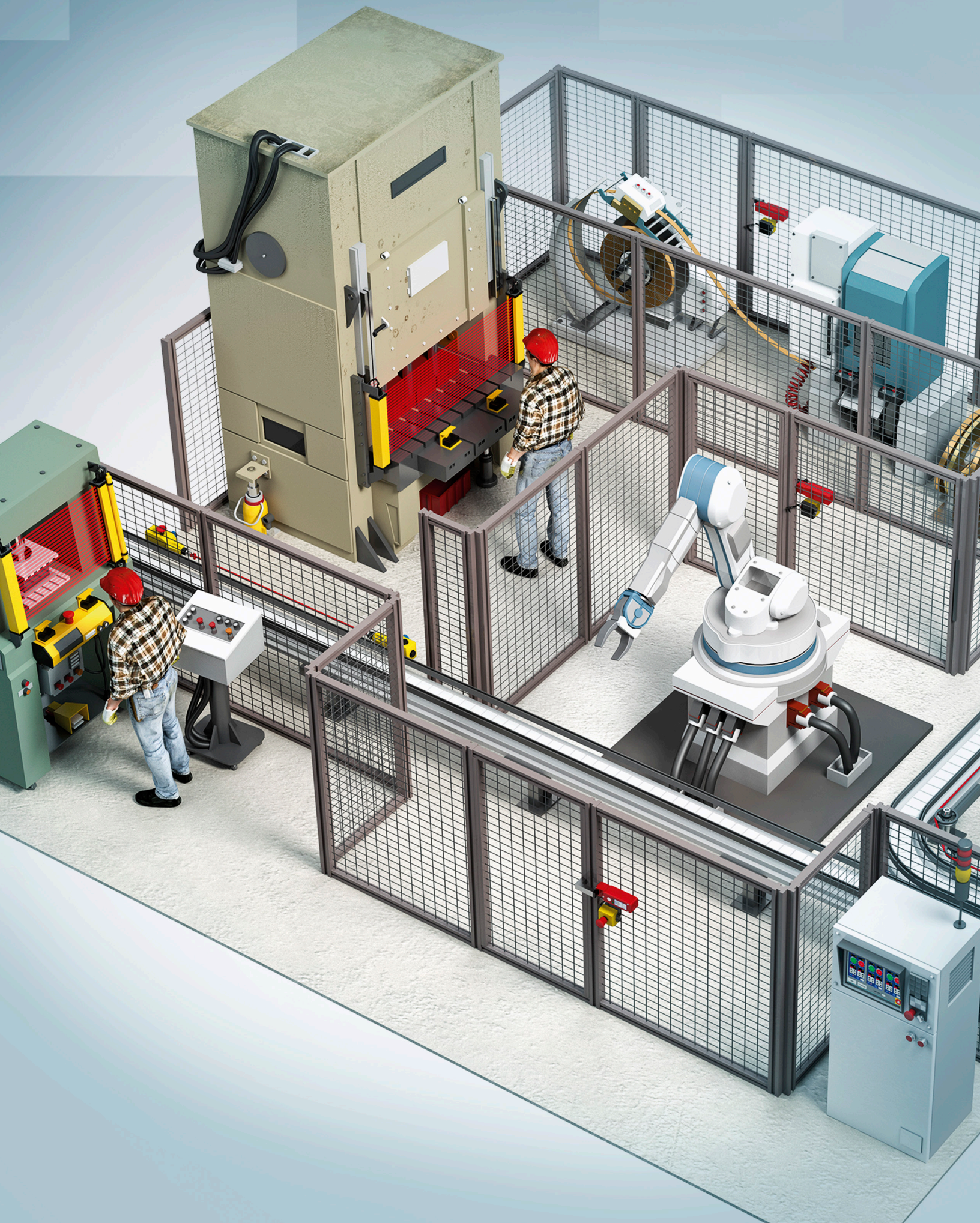
Transmission and  
Distribution

Coatings

Safety and reliability  
to improve your  
production process









# Safety Solutions

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## WEG SAFETY RELAYS FOR SAFE OPERATION OF EQUIPMENT AND MACHINERY

Investing in machinery and equipment safety is essential to increase industry efficiency and productivity. You can rely on WEG Safety Line products to help with that process.

Developed to meet rigorous national and international safety regulations, safety relays provide both standalone and integrated solutions within safety systems. By minimizing accident risks and safeguarding both operators and machinery, they significantly enhance the reliability of your production processes.







# Safety Relays

Safety relays are devices that supervise circuits, ensuring the equipment/system and operator safety. They are designed to meet the latest safety standards, always aiming at reaching the maximum efficiency and reliability in a single product.

## Main Characteristics

- TÜV Rheinland certification
- Dual channel outputs
- Contact supervision
- Protected against faults and tampering
- Lead-free products

## CP Line - Emergency Stop Control

- Models: CP-D and CPA-D
- 24 V dc / V ac power supply
- 3 NO safety outputs
- 1 NC auxiliary output
- Dual channel inputs
- Cat 4 / PLe (ISO 13849-1), SIL CL 3 IEC 62061/IEC 61508



NEW

## CS Line -Simultaneous Monitoring

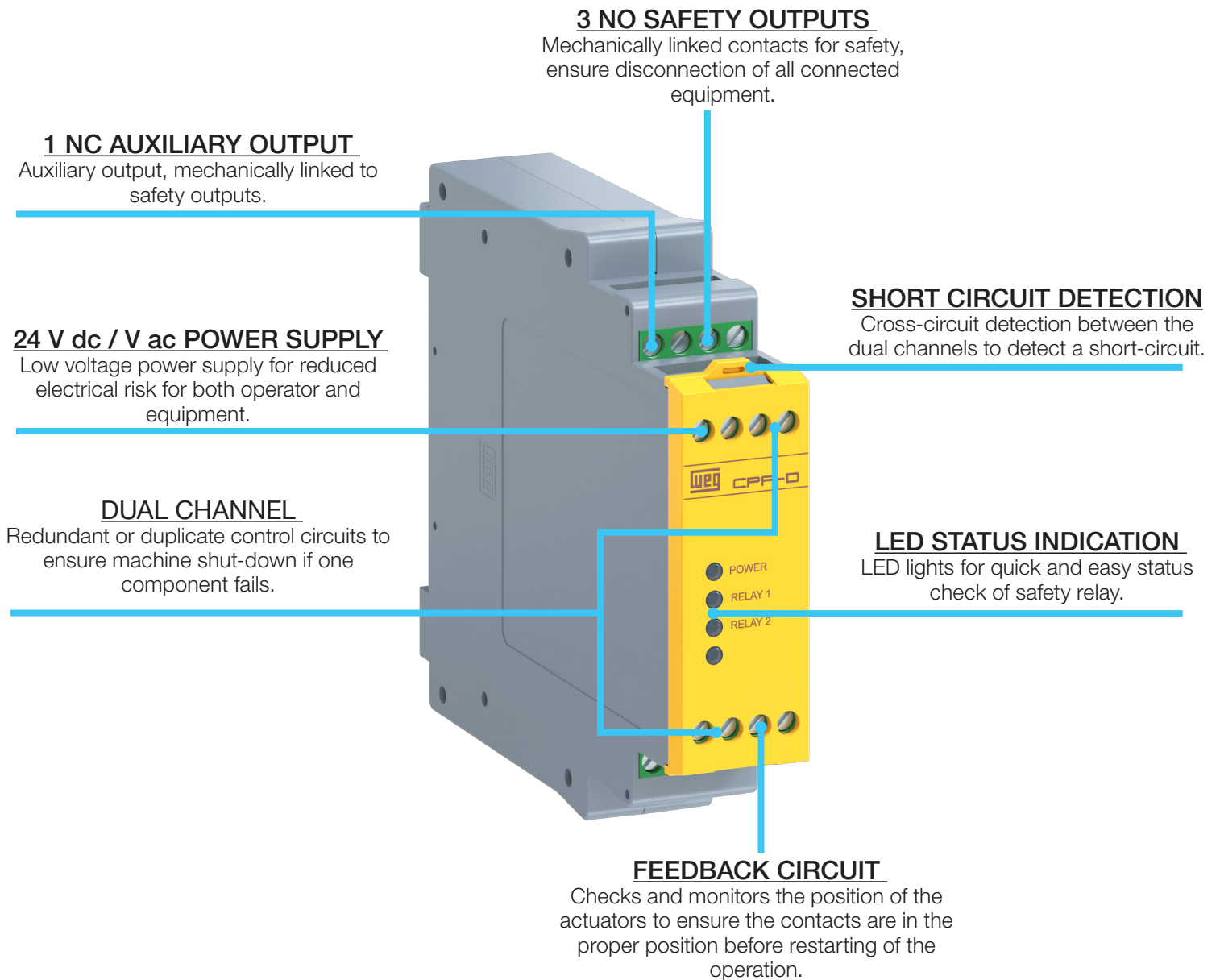
- Model: CS-D201
- 24 V dc power supply
- 3 NO safety outputs
- 1 NC auxiliary output
- Dual channel inputs
- Cat 4 / PLe (ISO 13849-1), SIL CL 3 IEC 62061/IEC 61508



NEW

# CP LINE - EMERGENCY STOP CONTROL RELAYS

## Product Features





**CP Line – Emergency Stop Control****Standard Features**

- 24 V dc / V ac power supply
- Supervises contacts of different safety equipment types
- 3 NO safety outputs
- 1 NC auxiliary output
- Dual channel
- Short-circuit detection
- Feedback circuit
- Broken wire detection, Cat 4 / PLe (ISO 13849-1), SIL CL 3 IEC 62061 / IEC 61508

**CP-D****CPA-D**

Supply voltage	Safety contacts	Auxiliary contact	Width (mm)	Reset	Catalog Number	Material Number	Multiplier
24 V dc / V ac	3 NO	1 NC	22.5	Manual	<b>CP-D</b>	<b>12381113</b>	Z7
				Automatic	<b>CPA-D</b>	<b>12381149</b>	



## Technical Data



### CP Line - Emergency Stop Control

The CP safety relays can be used to monitor the contacts of emergency pushbuttons, safety sensors, interlock switches and other vital safety devices.

They are protected against faults and tampering (auto check), and have contact monitoring, dual channel and power supply to provide flexibility in a variety of applications.



### Specifications

	CP-D	Manual start	Power supply .....24 V dc / V ac ±10% Consumption.....2.5 W Connection types .....Screw Terminal Output.....3 NO safety contacts and 1 NC auxiliary Service life of the contacts.....10 <sup>7</sup> operation Capacity of the contacts .....4.5 A - 30 V dc / 200 W - 250 V ac Response time .....10ms (max) Operating temperature .....-10 to 55 °C Protection degree.....IP20 b10 .....- PFHd .....2.82 E <sup>-10</sup> 1/h MTTFd .....2,315 years DC.....99% Service life.....20 years Standards .....IEC 60204-1, ISO 13850, IEC 60947-5-1, ISO 13849-1, IEC 61508, IEC 62061 Safety certification .....Cat 4 / PLe (ISO 13849-1), SIL CL 3 IEC 62061/IEC 61508) TÜV Rheinland Product certification.....TÜV, CE and UL <sup>1)</sup>
	CPA-D	Automatic start	Power supply .....24 V dc / V ac ±10% Consumption.....2.5 W Connection types .....Screw Terminal Output.....3 NO safety contacts and 1 NC auxiliary contact Service life of the contacts.....10 <sup>7</sup> operation Capacity of the contacts .....4.5 A - 30 V dc / 200 W - 250 V ac 3 A/250 V - 90 W Response time .....10ms (max) Operating temperature .....-10 to 55 °C Protection degree.....IP20 b10 .....- PFHd .....2.82 E <sup>-10</sup> 1/h MTTFd .....2,195 years DC.....99% Service life.....20 years Standards .....ISO 13849-1, IEC 61508, IEC 62061, IEC 954-1 Safety certification .....Cat 4 / PLe (ISO 13849-1), SIL CL 3 IEC 62061/IEC 61508) TÜV Rheinland Product certification.....TÜV, CE and UL <sup>1)</sup>

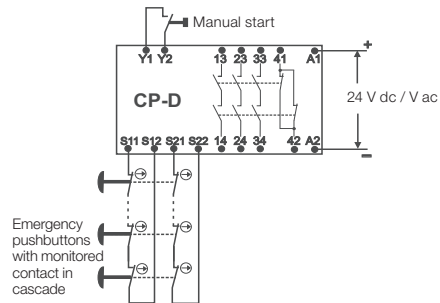
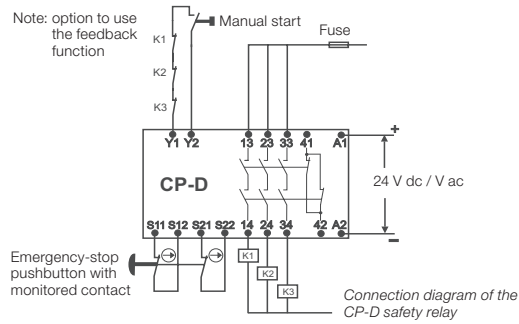
Note: 1) UL certification as a control relay.



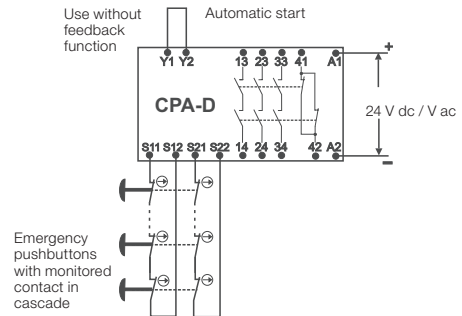
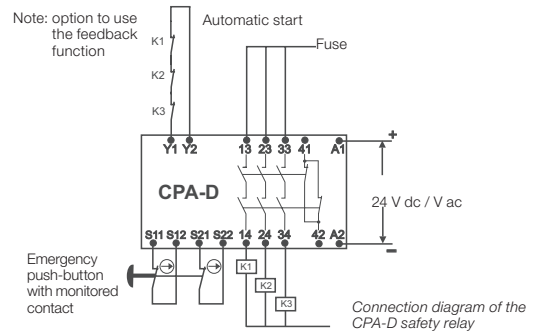


## Wiring Diagrams

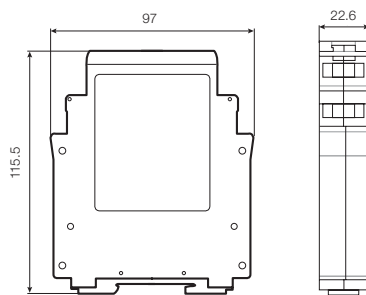
### Manual Start



### Automatic Start



## Dimensions



Note: dimensions in mm.



# CS LINE - SIMULTANEITY MONITORING RELAY

## Product Features

### DUAL CHANNEL

Redundant or duplicate control circuits to ensure that both inputs are closed before energizing circuit.

### FEEDBACK CIRCUIT

Checks and monitors the position of the actuators to ensure the contacts are in the proper position before restarting of the operation.

### 1 NC AUXILIARY OUTPUT

Auxiliary output, mechanically linked to safety outputs.

### SHORT CIRCUIT DETECTION

Cross-circuit detection between the dual channels to detect a short-circuit.

### 24 V dc / V ac POWER SUPPLY

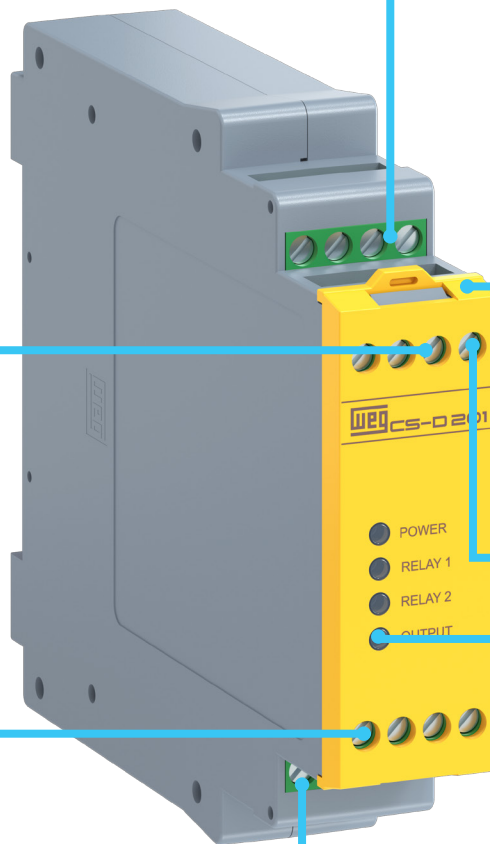
Low voltage power supply for reduced electrical risk for both operator and equipment.

### LED STATUS INDICATION

LED lights for quick and easy status check of safety relay.

### 2 NO SAFETY OUTPUTS

Mechanically linked contacts for safety, ensure activation of all connected equipment.





## Product Selection

### CS Line – Simultaneity Monitoring

#### Standard Features

- 24 V dc / V ac power supply
- Supervises contacts of different safety equipment types
- 2 NO safety outputs
- 1 NC auxiliary output
- Dual channel
- Short circuit detection
- Feedback circuit
- Broken wire detection
- Cat 4 / PLe (ISO 13849-1), SIL CL 3 IEC 62061 / IEC 61508



**CS-D201**

Supply voltage	Safety contacts	Width (mm)	Catalog Number	Material Number	Multiplier
24 Vdc	2 NO + 1 NC	22.5	<b>CS-D201</b>	<b>12424659</b>	Z7



## Technical Data


### CS Line - Simultaneous Monitoring

Safety relays that monitor the simultaneous activation in the control of machines and processes; in addition, they provide safety for the control of machines preventing operators from putting their hands into the hazardous area, being commonly used in two-hand controls.

They are protected against faults and tampering (auto check), and have contact monitoring, dual channel and power supply to provide flexibility in a variety of applications.

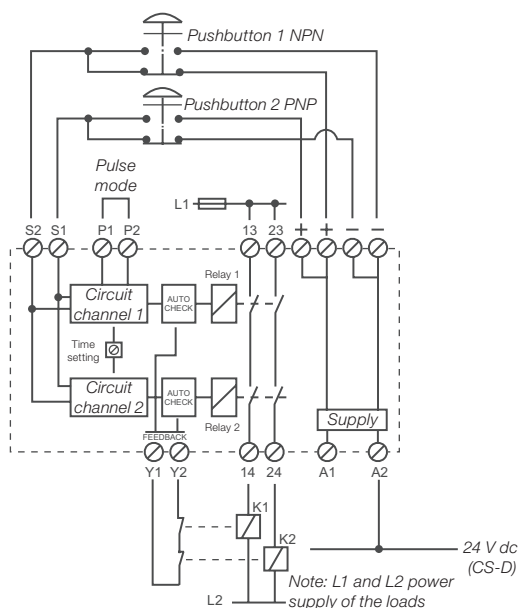


### Specifications

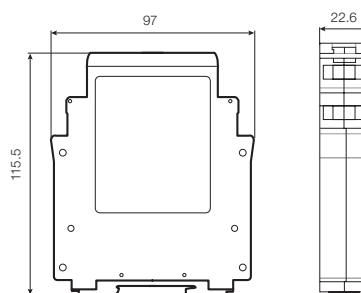
	CS-D201	Power supply.....	24 V dc ±10%
		Consumption .....	<10 VA
		Connection types .....	Screw Terminal
		Output .....	3 NO safety contacts and 1 NC auxiliary
		Service life of the contacts.....	10 <sup>7</sup> operation
		Capacity of the contacts.....	3 A/250 V - 90 W
		Response time.....	10ms (max)
		Operating temperature.....	-5 °C to 50 °C
		Protection degree .....	IP20
		Standards.....	EN 574 (tipo IIIC), ISO 13849-1, IEC 62061, IEC 61508, IEC 60947-5-1, IEC 60204-1, IEC 60664-1
		b10.....	-
		PFHd.....	4.37 E <sup>-10</sup> 1/h
		MTTFd.....	84 years
		DC .....	99%
		Service life.....	20 years
		Safety certification.....	Cat 4 / PLe (ISO 13849-1), SIL CL 3 IEC 62061/IEC 61508) TÜV Rheinland
		Product certification.....	TÜV, CE, UL <sup>1)</sup>
Lead-free product			

Note: 1) UL certification as a control relay.

### Wiring Diagrams



### Dimensions

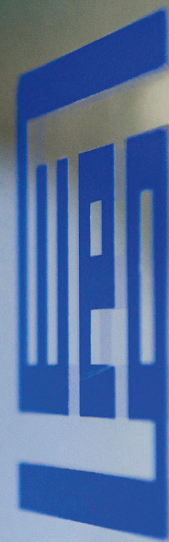


Note: dimensions in mm.

Example of CS-D safety relay connection with Soft Switch and Palm Switch pushbuttons



**Notes:**



# Global presence is essential, as much as understanding your needs.

## Global Presence

With more than 30.000 employees worldwide, WEG is one of the largest electric motors, electronic equipments and systems manufacturers. We are constantly expanding our portfolio of products and services with expertise and market knowledge. We create integrated and customized solutions ranging from innovative products to complete after-sales service.

WEG's know-how guarantees our **Safety Solutions** are the right choice for your application and business, assuring safety, efficiency and reliability.



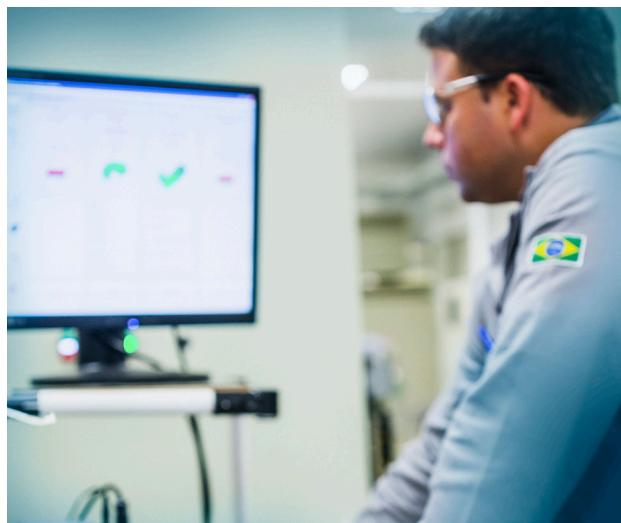
**Availability** is to have a global support network



**Partnership** is to create solutions that suit your needs



**Competitive edge** is to unite technology and innovation





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