

CHENZHU

# Signal Conditioner

## Catalogue ( 2023 )



【Factory video @Youtube】

CZYB-E13.02/2023.06

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<https://en.chenzhu-inst.com>



## CHENZHU COMPANY OVERVIEW



CHENZHU's headquarter is located at Shanghai, China, with an area of 10000m<sup>2</sup>.

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 QAR

## R&D Strength

Based on ISO/IEC/GB standards, CHENZHU has established the professional laboratory which is applied up to 80 test capabilities and verification items in CHENZHU's safety electrical products' development process.



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

**5000m<sup>2</sup>**  
In total



Max Cap.

**3,000,000 pcs**  
Year



Lean Production

**10+**  
Years' experience



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## CZ2000 Range

CZ2000 range signal conditioners use high-efficiency electromagnetic isolation technology to achieve reliable galvanic isolation among power supply, input and output, which effectively solves the problem of field interference in industrial automation control systems. This ensures a stable and reliable operation of the system. By using the advanced low power dissipation technology, it achieves low-power dissipation, low-heat, high-precision signal conversion under 7.6mm ultra-thin housing, ensuring long-term reliability in the high-density installation, saving the cabinet installation space.

**High-density Installation**  
Isolation conversion technology, with independent intellectual property rights, achieves high precision, low power dissipation, and high life cycle.

**Easy Installation and Disassemble**  
Use standard 35mm rails, which are commonly used in industrial control cabinets.

**Save Installation Space**  
7.6mm ultra-thin electronic module housing saves more than 40% installation space compared to traditional products.

**Strong EMC Performance**  
Specially designed high dielectric strength transformer achieves reliable galvanic isolation and anti-interference among power supply, input, and output.

**High Conversion Accuracy**  
The electromagnetic isolation technology is used to directly and efficiently convert the signal, and the precision is better than 0.05% F.S.

Input  
Output  
Power supply

7.6mm



# Selection Guide

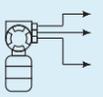
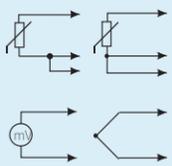
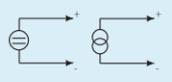
Field Instrument	Application	Module No.	Channels	Input	Output	Features	Page
	Analog Input	CZ2031	1/1	4~20mA (HART)	4~20mA (HART)	Loop powered	6
	Analog Output	CZ2047	1/1	0/4~20mA	0/4~20mA	Independent powered	7
		CZ2067	1/1		0/1~5V		
	Temperature Converters	CZ2071	1/1	RTD	0~20mA, 4~20mA	Independent powered Configurable via software	8
		CZ2171	1/1	TC mV	0~5V, 1~5V		
		CZ2271	1/1	RTD TC		Loop powered Configurable via software	9
		CZ2077	1/1	RTD	4~20mA		
		CZ2177	1/1	TC mV			
	CZ2277	1/1	RTD TC				
	Voltage/Current Converters	CZ2083	1/1	0~20mA, 4~20mA 0~5V, 1~5V 0~10V, 2~10V	0~20mA, 4~20mA 0~5V, 1~5V 0~10V, 2~10V	Independent powered Configurable via DIP switches	10
		CZ2083.A	1/1				

Table 1 Input Signal Type and Range

Type	Type	Range	Min.Span	Accuracy
TC	T	-200°C~+400°C	50°C	1°C / 0.2%
	E	-200°C~+900°C	50°C	1°C / 0.2%
	J	-200°C~+1200°C	50°C	1°C / 0.2%
	K	-200°C~+1372°C	50°C	1°C / 0.2%
	N	-200°C~+1300°C	50°C	1°C / 0.2%
	R	-40°C~+1768°C	500°C	3°C / 0.2%
	S	-40°C~+1768°C	500°C	3°C / 0.2%
	B	+320°C~+1820°C	500°C	3°C / 0.2%
RTD	Pt100	-200°C~+850°C	20°C	0.4°C / 0.2%
	Cu50	-50°C~+150°C	20°C	0.4°C / 0.2%
	Cu100	-50°C~+150°C	20°C	0.4°C / 0.2%
mV		-100mV~+100mV	10mV	40μV / 0.2%

Note:

- The “%” of conversion accuracy is relative to its range. Take the larger value between the range error and the absolute error when applying.
- Allow a maximum wire resistance of 50Ω/line for RTD input(3-wire).
- When the thermocouple is input, the conversion accuracy does not include the C.J.C. For every 100Ω increase in the compensation wire, the cold junction error increases by 0.2°C.
- When the Type B thermocouple is input, the lower limit of temperature range is required to be greater than 680 °C to ensure the accuracy index.
- mV signal input needs to be customized.

## Configuration Accessory

Configuration Tool: USBCOM-MINI



Software: Easyconfig



# Analog Input /Analog Output (Loop Powered)

## Features

- 1-channel signal conditioner
- 24V DC loop powered
- Suitable for analog input and analog output
- Support HART communication
- Ultra-slim housing width 7.6mm

## Input

Input Current	4~20mA(HART)
Distribution Voltage	$U_o \geq U_e - R_i \times 0.02-6$
Loop Current	$\leq 25mA$

## Output

Output Current	4~20mA(HART)
Load Resistance	$R_L \geq 250\Omega$ (HART)
Loop Current	$\leq 25mA$

## General Parameters

Loop Supply Voltage( $U_e$ )	20~30V DC
Power Reverse Protection	Support
Transmission Accuracy	0.4%F.S.
Temperature Drift	0.03%F.S./°C
Response Time (0~90%)	$\leq 0.5$ ms
Dielectric Strength	1500V AC;1min
Insulation Resistance	$\geq 100M\Omega$ ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C
Suitable Field Apparatus	2-wire transmitter

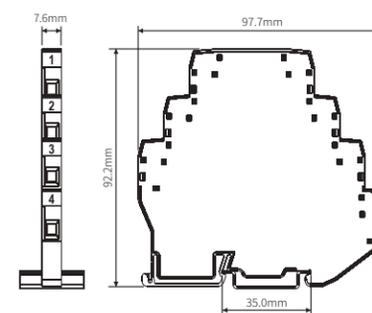
## CZ2031 Application 1: Analog Input

Input Current	4~20mA(HART)
Distribution Voltage	$U_o \geq U_e - R_i \times 0.02-6$
Loop Current	$\leq 25mA$
Output Current	4~20mA(HART)
Load Resistance	$R_L \geq 250\Omega$ (HART)
Loop Current	$\leq 25mA$
Loop Supply Voltage( $U_e$ )	20~30V DC
Power Reverse Protection	Support
Transmission Accuracy	0.4%F.S.
Temperature Drift	0.03%F.S./°C
Response Time (0~90%)	$\leq 0.5$ ms
Dielectric Strength	1500V AC;1min
Insulation Resistance	$\geq 100M\Omega$ ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C
Suitable Field Apparatus	2-wire transmitter

## CZ2031 Application 2: Analog Output

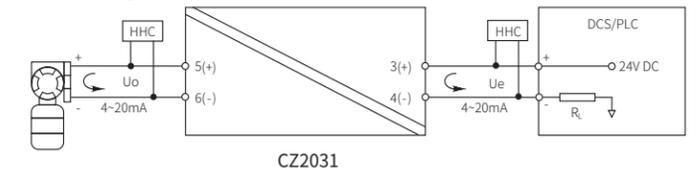
Input Current	4~20mA(HART)
Distribution Voltage	$U_o \geq U_e - R_i \times 0.02-6$
Loop Current	$\leq 25mA$
Output Current	4~20mA(HART)
Load Resistance	$R_L \leq (U_e - 6) / 0.02$
Loop Current	$\leq 25mA$
Loop Supply Voltage( $U_e$ )	20~30V DC
Power Reverse Protection	Support
Transmission Accuracy	0.3%F.S.
Temperature Drift	0.03%F.S./°C
Response Time (0~90%)	$\leq 0.5$ ms
Dielectric Strength	1500V AC;1min
Insulation Resistance	$\geq 100M\Omega$ ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C
Suitable Field Apparatus	2-wire Valve positioner, Electrical converter

## Dimensions

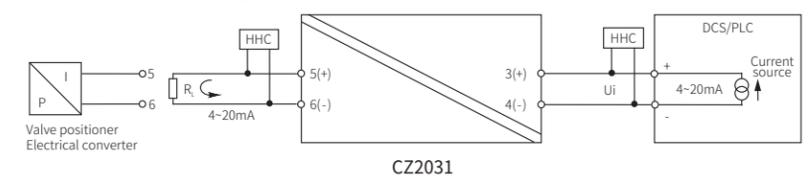


## Connection

### Application 1: Analog input



### Application 2: Analog output



Note: HHC (HART Hand Held Communicator) cannot be used simultaneously on the input side and output side

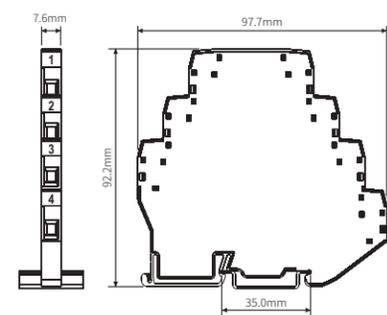
# Analog Input / Analog Output

## Features

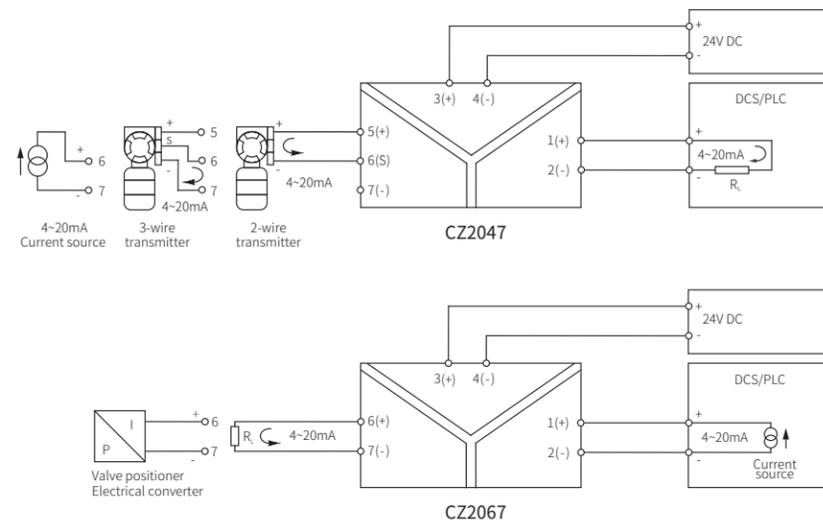
- 1-channel signal conditioner
- 24V DC supply
- 0/4~20mA current input/output
- Ultra-slim housing width 7.6mm

	CZ2047 Analog Input	CZ2067 Analog Output
<b>Input</b>		
Input Current	0/4~20mA	0/4~20mA
Distribution Voltage	≥19V	
Input Voltage Drop		≤7V@20mA
Max. Input Current	<50mA	<50mA
<b>Output</b>		
Output Current/Load Resistance	0(4)~20mA / $R_L \leq 550\Omega$	0(4)~20mA / $R_L \leq 800\Omega$
Max. Output Current	<50mA	<50mA
Output Voltage/Load Resistance	0(1)~5V / $R_L \geq 330k\Omega$	0(1)~5V / $R_L \geq 330k\Omega$
<b>General Parameters</b>		
Supply Voltage	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support
Current Consumption(Supply voltage:24V)	≤65mA	≤40mA
Transmission Accuracy	0.1%F.S.(Typical: 0.05%F.S.)	0.1%F.S.(Typical: 0.05%F.S.)
Temperature Drift	0.005%F.S./°C	0.005%F.S./°C
Response Time (0~90%)	≤0.5 ms	≤0.5ms
Dielectric Strength	1500V AC;1min	1500V AC;1min
Insulation Resistance	≥100MΩ; 500V DC	≥100MΩ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-or 3-wire transmitter, current source	2-wire valve positioner, electrical converter

## Dimensions



## Connection



# RTD / TC Input

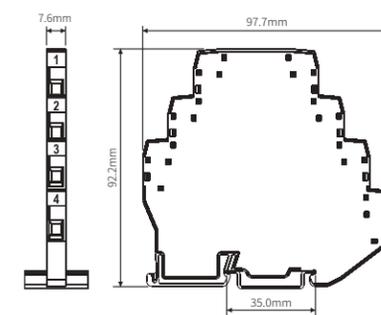
## Features

- 1-channel signal conditioner
- 24V DC supply
- Line fault detection(LFD)
- Configurable by software
- Ultra-slim housing width 7.6mm

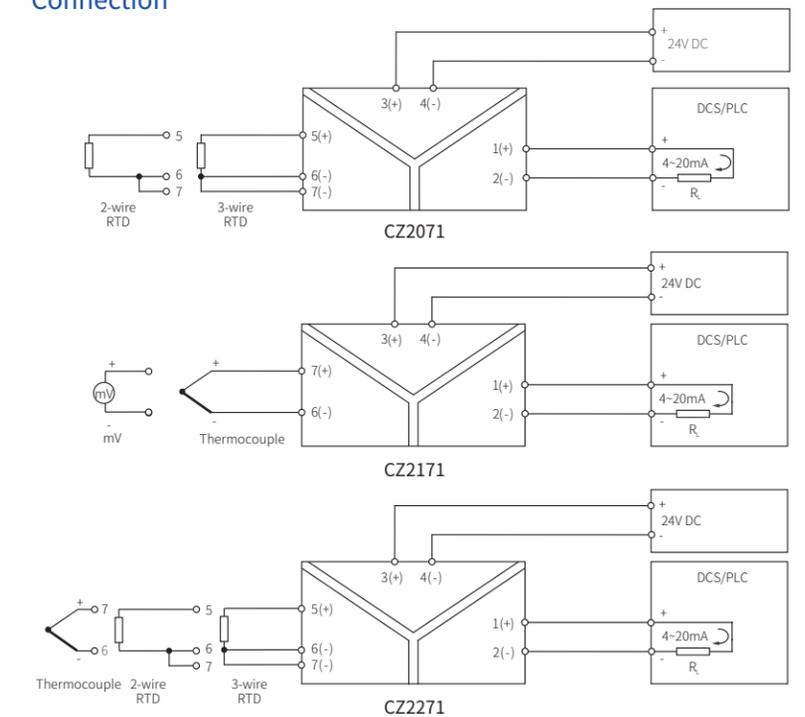
	CZ2071 RTD Input	CZ2171 TC Input	CZ2271 RTD/TC Input
<b>Input</b>			
Input Signal	Pt100, Cu100, Cu50	T, E, J, K, N, R, S, B (Customized mV signal)	Pt100, Cu100, Cu50 T, E, J, K, N, R, S, B
Internal CJC Temperature Range		-20°C~+60°C	-20°C~+60°C
CJC Precision		±1°C	±1°C
<b>Output</b>			
Output Current/Load Resistance	0~20mA, 4~20mA / $R_L \leq 300\Omega$	0~20mA, 4~20mA / $R_L \leq 300\Omega$	0~20mA, 4~20mA / $R_L \leq 300\Omega$
Output Voltage/Load Resistance	0~5V, 1~5V / $R_L \geq 2k\Omega$	0~5V, 1~5V / $R_L \geq 2k\Omega$	0~5V, 1~5V / $R_L \geq 2k\Omega$
Fault Current of Overrange/Underrange	$I_H \approx 20.8mA / I_L \approx 3.8mA$	$I_H \approx 20.8mA / I_L \approx 3.8mA$	$I_H \approx 20.8mA / I_L \approx 3.8mA$
Fault Current of Line Break	$I \approx 20.8mA$	$I \approx 20.8mA$	$I \approx 20.8mA$
<b>General Parameters</b>			
Supply Voltage	20~35V DC	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support	Support
Current Consumption(Supply voltage:24V)	≤45mA	≤45mA	≤45mA
Conversion Accuracy	0.2%	0.2%	0.2%
Temperature Drift	0.01%F.S./°C	0.01%F.S./°C	0.01%F.S./°C
Response Time (0~90%)	≤1s	≤1s	≤1s
Dielectric Strength	1500V AC;1min	1500V AC;1min	1500V AC;1min
Insulation Resistance	≥100MΩ; 500V DC	≥100MΩ; 500V DC	≥100MΩ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-or 3-wire RTD sensor	TC sensor, mV signal	2-or 3-wire RTD, TC sensor

Note: Fault current of line break <4mA or other special requirements, need to be customized.

## Dimensions



## Connection



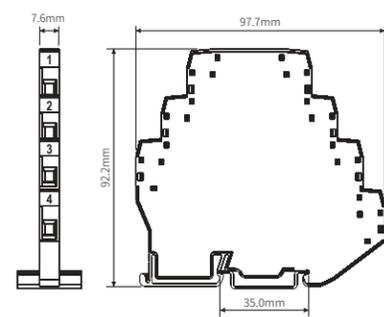
# RTD / TC Input (Loop Powered)

## Features

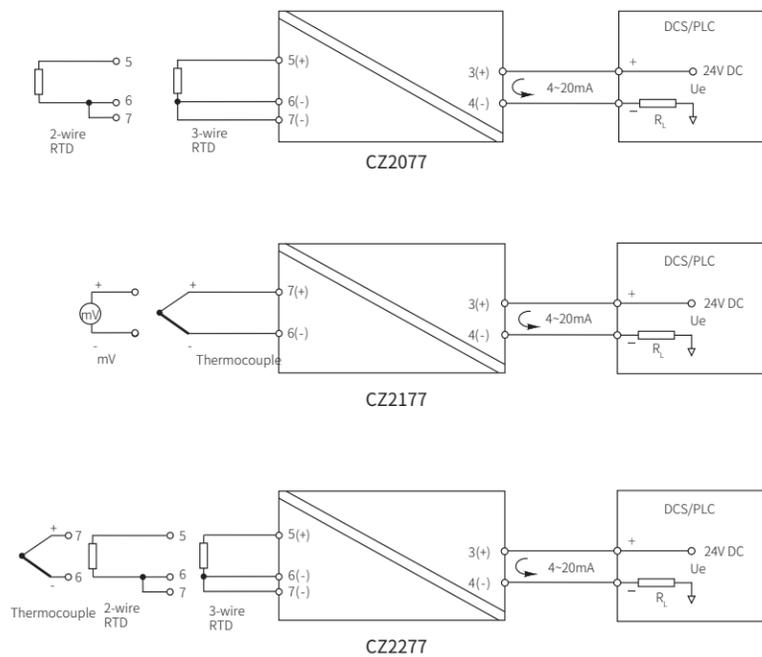
- 1-channel signal conditioner
- 24V DC loop powered
- Line fault detection(LFD)
- Configurable by software
- Ultra-slim housing width 7.6mm

	CZ2077 RTD Input	CZ2177 TC Input	CZ2277 RTD/TC Input
<b>Input</b>			
Signal type	Pt100, Cu100, Cu50	T, E, J, K, N, R, S, B (Customized mV signal)	Pt100, Cu100, Cu50 T, E, J, K, N, R, S, B
Internal CJC Temperature Range		-20°C~+60°C	-20°C~+60°C
CJC Precision		±1°C	±1°C
<b>Output</b>			
Output Current	4~20mA	4~20mA	4~20mA
Load Resistance	$R_L \leq (U_e - 9)/0.021\Omega$	$R_L \leq (U_e - 9)/0.021\Omega$	$R_L \leq (U_e - 9)/0.021\Omega$
Fault Current of Overrange/Underrange	$I_H \approx 20.8mA/I_L \approx 3.8mA$	$I_H \approx 20.8mA/I_L \approx 3.8mA$	$I_H \approx 20.8mA/I_L \approx 3.8mA$
Fault Current of Line Break	$I \approx 20.8mA$	$I \approx 20.8mA$	$I \approx 20.8mA$
<b>General Parameters</b>			
Loop Supply Voltage( $U_e$ )	9~30V DC	9~30V DC	9~30V DC
Power Reverse Protection	Support	Support	Support
Power Dissipation	≤0.5W	≤0.5W	≤0.5W
Conversion Accuracy	0.2%	0.2%	0.2%
Temperature Drift	0.01%F.S./°C	0.01%F.S./°C	0.01%F.S./°C
Response Time (0~90%)	≤1s	≤1s	≤1s
Dielectric Strength	1500V AC;1min	1500V AC;1min	1500V AC;1min
Insulation Resistance	≥100MΩ; 500V DC	≥100MΩ; 500V DC	≥100MΩ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-or 3-wire RTD sensor	TC sensor, mV signal	RTD, TC sensor

## Dimensions



## Connection



# Voltage / Current Converters

## Features

- 1-channel signal conditioner
- 24V DC supply
- Configurable by DIP switches (CZ2083.A)
- Ultra-slim housing width 7.6mm

## Input

Configuration	Not support
Input Signal	0~20mA, 4~20mA 0~5V, 1~5V, 0~10V, 2~10V

## Output

Configuration	Not support
Output Signal	0~20mA, 4~20mA 0~5V, 1~5V, 0~10V, 2~10V

## General Parameters

Supply Voltage	20~35V DC
Power Reverse Protection	Support
Current Consumption(Supply voltage:24V)	≤45mA
Transmission Accuracy	0.1%F.S.
Temperature Drift	0.01%F.S./°C
Response Time (0~90%)	≤100ms
Dielectric Strength	1500V AC;1min
Insulation Resistance	≥100MΩ
EMC Standards	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C
Suitable Field Apparatus	current source, voltage source

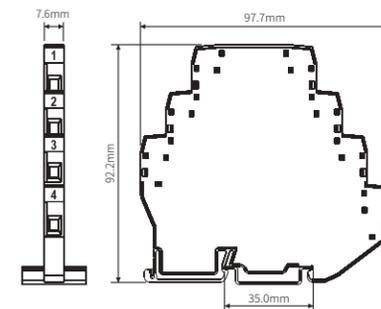
## CZ2083

Configuration	Not support
Input Signal	0~20mA, 4~20mA 0~5V, 1~5V, 0~10V, 2~10V
Configuration	Not support
Output Signal	0~20mA, 4~20mA 0~5V, 1~5V, 0~10V, 2~10V
Supply Voltage	20~35V DC
Power Reverse Protection	Support
Current Consumption(Supply voltage:24V)	≤45mA
Transmission Accuracy	0.1%F.S.
Temperature Drift	0.01%F.S./°C
Response Time (0~90%)	≤100ms
Dielectric Strength	1500V AC;1min
Insulation Resistance	≥100MΩ
EMC Standards	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C
Suitable Field Apparatus	current source, voltage source

## CZ2083.A DIP configurable

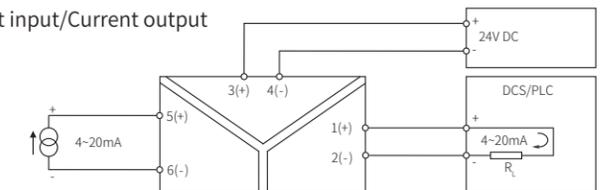
Configuration	Via DIP switches
Input Signal	0~20mA, 4~20mA 0~5V, 1~5V, 0~10V, 2~10V
Configuration	Via DIP switches
Output Signal	0~20mA, 4~20mA 0~5V, 1~5V, 0~10V, 2~10V
Supply Voltage	20~35V DC
Power Reverse Protection	Support
Current Consumption(Supply voltage:24V)	≤45mA
Transmission Accuracy	0.1%F.S.
Temperature Drift	0.01%F.S./°C
Response Time (0~90%)	≤100ms
Dielectric Strength	1500V AC;1min
Insulation Resistance	≥100MΩ
EMC Standards	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C
Suitable Field Apparatus	current source, voltage source

## Dimensions

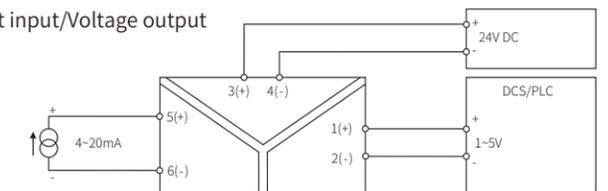


## Connection

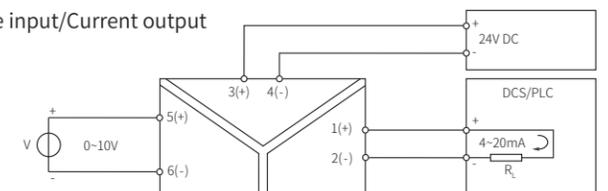
### Application 1: Current input/Current output



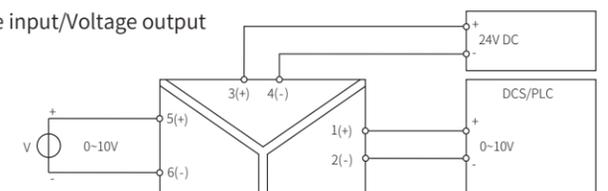
### Application 2: Current input/Voltage output



### Application 3: Voltage input/Current output



### Application 4: Voltage input/Voltage output



# CZ3000 Range

CZ3000 range signal conditioners are electrical devices, which are connected between the industrial field instrument and the control room. They effectively solve the field interference of industrial automation control systems and ensure stable and reliable operation of the system through reliable galvanic isolation among the power supply, input, and output. The product model is rich, and basically covers various signal isolation, conversion, distribution and other functional requirements in the automatic control system.

**Strong EMC Performance**  
Specially designed high dielectric strength transformer achieves reliable galvanic isolation and anti-interference among power supply, input, and output.

**Convenient Wiring**  
Pluggable terminal blocks for quick wiring or replacement.

**Easy Installation and Disassemble**  
Use standard 35mm rails, which are commonly used in industrial control cabinets.

**High Conversion Precision**  
The electromagnetic isolation technology is used to directly and efficiently convert the signal, and the precision is better than 0.05% F.S.

**Good Heat Dissipation**  
Ventilation grid design for good heat dissipation.



Field Instrument	Application	Module No.	Channels	Input	Output	Features	Page
	Digital Input	CZ3011.C	1/1	Dry-contact switch	Relay contact output	Independent powered	14
		CZ3012.S	2/2	Proximity switch input		Configurable via DIP switches	
	Analog Input	CZ3031	1/1	4~20mA (HART)	4~20mA (HART)	Loop powered	15
		CZ3032	2/2				
	CZ3047	1/1	0/4~20mA	0/4~20mA	Independent powered	16	
	CZ3035	1/2		0/1~5V	Current/voltage source output		
	CZ3036	2/2					
	CZ3047T	1/1		0/4~20mA	Independent powered	17	
	CZ3035T	1/2			Sink mode output		
	CZ3036T	2/2					
CZ3065T	1/1		4~20mA	4~20mA	Loop powered	18	
CZ3066T	2/2						
	Analog Output	CZ3067	1/1	0/4~20mA	0/4~20mA	Independent powered	19
		CZ3038	2/2		0/1~5V		
	Temperature Converters	CZ3071	1/1	RTD	0~20mA, 4~20mA	Independent powered	20
		CZ3076	1/2		0~5V, 1~5V	Configurable via software	
	CZ3079	2/2					
	CZ3072	1/1		TC			21
	CZ3074	1/2		mV			
	CZ3079.TC	2/2					
	CZ3077	1/1		RTD	4~20mA	Loop powered	22
	CZ3078	2/2				Configurable via software	
	CZ3177	1/1		TC			
	CZ3178	2/2		mV			
CZ3277	1/1		RTD, TC				
CZ3278	2/2						
CZ3075	1/1		0~5kΩ	0~20mA, 4~20mA	Independent powered	23	
CZ3076.R	1/2		0~10kΩ	0~5V, 1~5V	Configurable via software		
CZ3079.R	2/2						
	Pulse Input	CZ3051	1/1	Voltage pulse	Voltage pulse, transistor	Independent powered	24
		CZ3052	2/2	0~10kHz	0~10kHz		
		CZ3053	1/2				
	Frequency Converters	CZ3055	1/2	Dry contact Proximity switch Voltage pulse, transistor 0.1~100kHz	0~20mA, 4~20mA 0~5V, 1~5V SPST relay contact	Independent powered Configurable via software	25

# Selection Guide

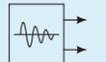
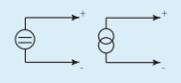
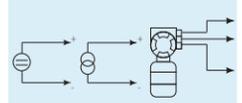
Field Instrument	Application	Module No.	Channels	Input	Output	Features	Page
	Vibration Transducer Input	CZ3058	1/1	Vibration transducer -10V~10V	-10V~10V	Independent powered	26
	Voltage Input	CZ3083 CZ3088 CZ3089	1/1 2/2 1/2	0~5V, 1~5V 0~10V	0~20mA, 4~20mA 0~5V, 1~5V 0~10V	Independent powered	27
	Communication Input	CZ3093	1/1	RS-485 half duplex	RS-485 half duplex	Independent powered	28
	Signal Splitter	CZ3383.11 CZ3383.13 CZ3383	1/1 1/3 1/4	0~20mA, 4~20mA 0~5V, 1~5V 0~10V, 2~10V	0~20mA, 4~20mA 0~5V, 1~5V 0~10V, 2~10V	Independent powered	29 30

Table 2 Input Signal Type and Range

	Type	Range	Min.Span	Accuracy
TC	T	-200°C~+400°C	50°C	0.5°C/0.1%
	E	-200°C~+900°C	50°C	0.5°C/0.1%
	J	-200°C~+1200°C	50°C	0.5°C/0.1%
	K	-200°C~+1372°C	50°C	0.5°C/0.1%
	N	-200°C~+1300°C	50°C	0.5°C/0.1%
	R	-40°C~+1768°C	500°C	1.5°C/0.1%
	S	-40°C~+1768°C	500°C	1.5°C/0.1%
	B	+320°C~+1820°C	500°C	1.5°C/0.1%
	C	0°C~+2200°C	500°C	1.5°C/0.1%
	D	0°C~+2200°C	500°C	1.5°C/0.1%
RTD	Pt100	-200°C~+850°C	20°C	0.2°C/0.1%
	Pt1000	-200°C~+300°C	20°C	0.2°C/0.1%
	Cu50	-50°C~+150°C	20°C	0.2°C/0.1%
	Cu100	-50°C~+150°C	20°C	0.2°C/0.1%
mV		-100mV~+100mV	10mV	20μV/0.1%
Potentiometer		0kΩ~400Ω	50Ω	0.2Ω/0.1%
		0kΩ~2.5kΩ	250Ω	1.25Ω/0.1%
		0kΩ~10kΩ	1000Ω	5Ω/0.1%

Note:

1. The “%” of conversion accuracy is relative to its range. Take the larger value between the range error and the absolute error when applying.
2. Allow a maximum wire resistance of 50Ω/line for RTD input(3-wire).
3. When the thermocouple is input, the conversion accuracy does not include the C.J.C.
4. When the Type B thermocouple is input, the lower limit of temperature range is required to be greater than 680 °C to ensure the accuracy index.

## Configuration Accessory

Configuration Tool: USBCOM-MINI



Software: Easyconfig



# Switch Amplifier

## Features

- 24V DC independent power supply
- Dry contact or proximity switch input
- Relay contact output
- Line fault detection(LFD)
- Configurable by DIP switches

## Input

- Open-circuit Voltage
- Short-circuit Current
- Input and output characteristics(Phase noninverting)

## Output

- Contact Rating
- Load Type
- Response Time (0~90%)
- Input/Output Inverting(See the manual for details)
- Line Fault Detection(See the manual for details)

## General Parameters

- Supply Voltage
- Power Reverse Protection
- Current Consumption(Supply voltage:24V)
- Dielectric Strength
- Insulation Resistance
- EMC Standards
- Ambient Temperature
- Suitable Field Apparatus

CZ3011.C  
1/1

CZ3012.S  
2/2

Approx.8V  
Approx.8mA

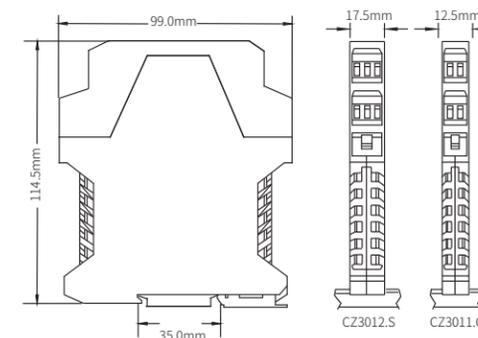
If field switch is in the status of 'close' or input loop current > 2.1mA, output relay will be energized, with yellow LED ON  
If field switch is in the status of 'close' or input loop current < 1.2mA, output relay will be de-energized, with yellow LED OFF

250V AC,2A or 30V DC,2A  
Resistive load  
≤10ms  
Via switch K1  
Via switch K2

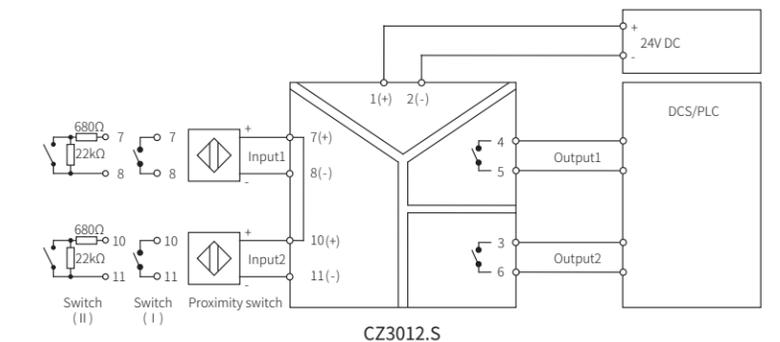
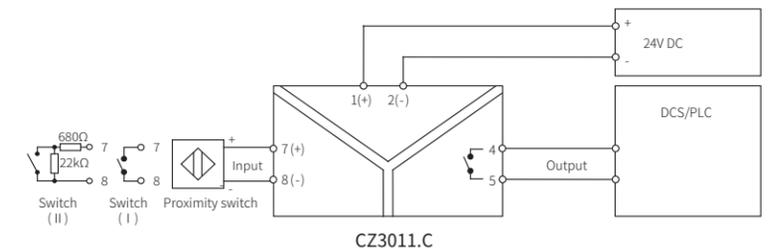
20~35V DC  
Support  
≤30mA  
1500V AC;1min  
≥100MΩ; 500V DC  
GB/T 18268(IEC 61326-1)  
-20°C~+60°C

Dry contact, NAMUR proximity switch according to DIN 19234 standards (including: pressure switches, temperature switches, liquid level switches, etc.)

## Dimensions



## Connection



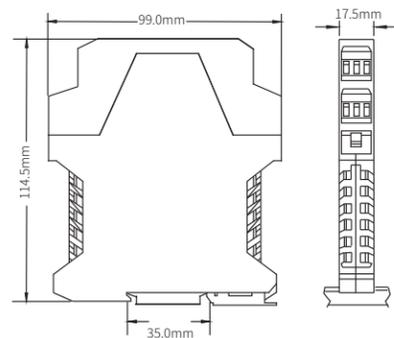
# Analog Input / Analog Output (Loop Powered)

## Features

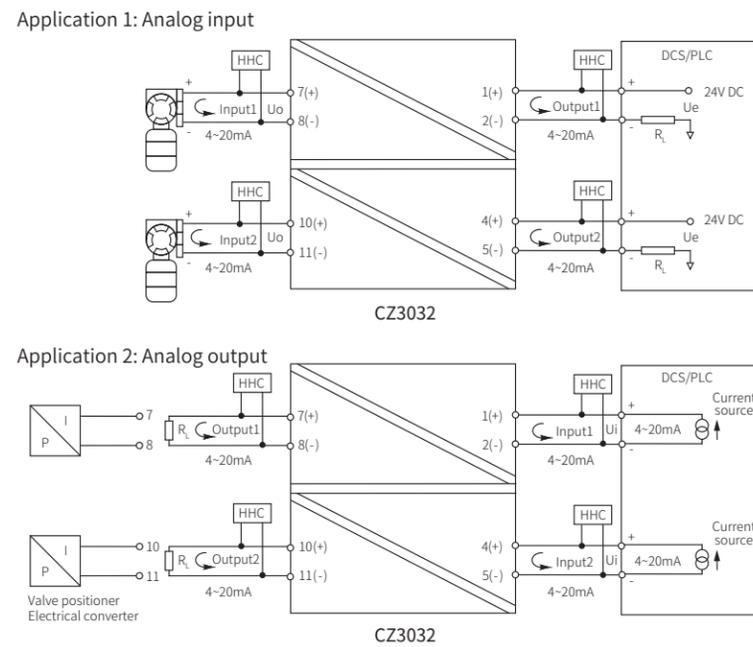
24V DC Loop powered  
Suitable for analog input and analog output  
Support HART communication

	1/1: CZ3031 2/2: CZ3032 Application 1: Analog Input	1/1: CZ3031 2/2: CZ3032 Application 2: Analog Output
<b>Input</b>		
Input Current	4~20mA(HART)	4~20mA(HART)
Voltage Drop	$U_d \leq 6V$	$U_d \leq 6V$
Distribution Voltage	$U_d \geq U_e - R_L \times 0.02-6$	
<b>Output</b>		
Output Current	4~20mA(HART)	4~20mA(HART)
Load Resistance	$R_L \geq 250\Omega$ (HART)	$R_L \leq (U_e - 6)/0.02$
<b>General Parameters</b>		
Loop Supply Voltage( $U_e$ )	20~30V DC	20~30V DC
Power Reverse Protection	Support	Support
Power Dissipation	0.1W	0.1W
Transmission Accuracy	0.4%F.S.	0.2%F.S.
Temperature Drift	0.01%F.S./°C	0.01%F.S./°C
Response Time (0~90%)	$\leq 0.5$ ms	$\leq 0.5$ ms
Dielectric Strength	1500V AC;1min	1500V AC;1min
Insulation Resistance	$\geq 100M\Omega$	$\geq 100M\Omega$
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-wire transmitter	2-wire Valve positioner/ Electrical converter

## Dimensions



## Connection



- Note:
- HHC (HART Hand Held Communicator) cannot be used simultaneously on the input side and output side
  - CZ3031 refers to the CZ3032 channel 1 to wire.

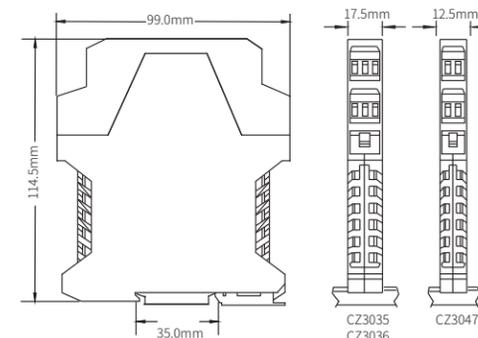
# Analog Input(Current Source Output)

## Features

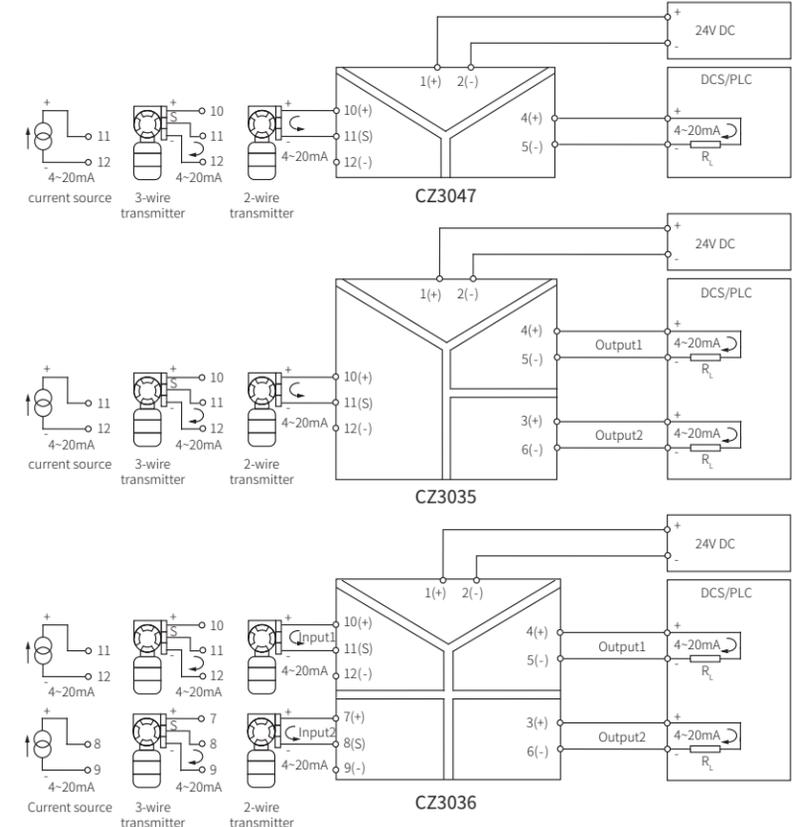
24V DC independent power supply  
0/4~20mA current input  
0/4~20mA current source output

	CZ3047 1/1	CZ3035 1/2	CZ3036 2/2
<b>Input</b>			
Input Current	0/4~20mA	0/4~20mA	0/4~20mA
Input Impedance	$\leq 50\Omega$	$\leq 50\Omega$	$\leq 50\Omega$
Distribution Voltage/Max. Current	17.5~25V/<35mA	17.5~25V/<35mA	17.5~25V/<35mA
<b>Output</b>			
Output Current	0/4~20mA	0/4~20mA	0/4~20mA
Load Resistance(Current output)	$R_L \leq 800\Omega$	$R_L \leq 300\Omega$	$R_L \leq 300\Omega$
Output Voltage	0/1~5V, 0/2~10V	0/1~5V, 0/2~10V	0/1~5V, 0/2~10V
Load Resistance(Voltage output)	$R_L \geq 330k\Omega$ (0/1~5V) $R_L \geq 660k\Omega$ (0/2~10V)	$R_L \geq 330k\Omega$ (0/1~5V) $R_L \geq 660k\Omega$ (0/2~10V)	$R_L \geq 330k\Omega$ (0/1~5V) $R_L \geq 660k\Omega$ (0/2~10V)
<b>General Parameters</b>			
Supply Voltage	20~35V DC	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support	Support
Current Consumption(Supply voltage:24V)	$\leq 60mA$	$\leq 75mA$	$\leq 100mA$
Transmission Accuracy	0.1%F.S.(Typical: 0.05%F.S.)	0.1%F.S.(Typical: 0.05%F.S.)	0.1%F.S.(Typical: 0.05%F.S.)
Temperature Drift	0.005%F.S./°C	0.005%F.S./°C	0.005%F.S./°C
Response Time (0~90%)	$\leq 0.5$ ms	$\leq 0.5$ ms	$\leq 0.5$ ms
Dielectric Strength	1500V AC;1min	1500V AC;1min	1500V AC;1min
Insulation Resistance	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-or 3-wire transmitter, current source	2-or 3-wire transmitter, current source	2-or 3-wire transmitter, current source

## Dimensions



## Connection



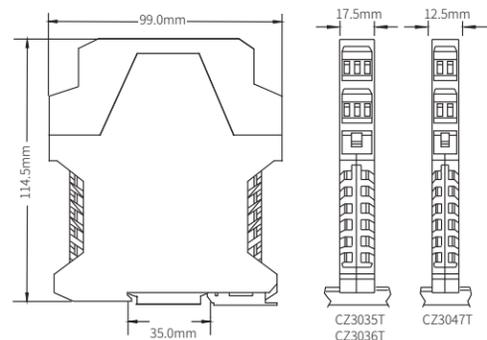
# Analog Input(Sink Mode Output)

## Features

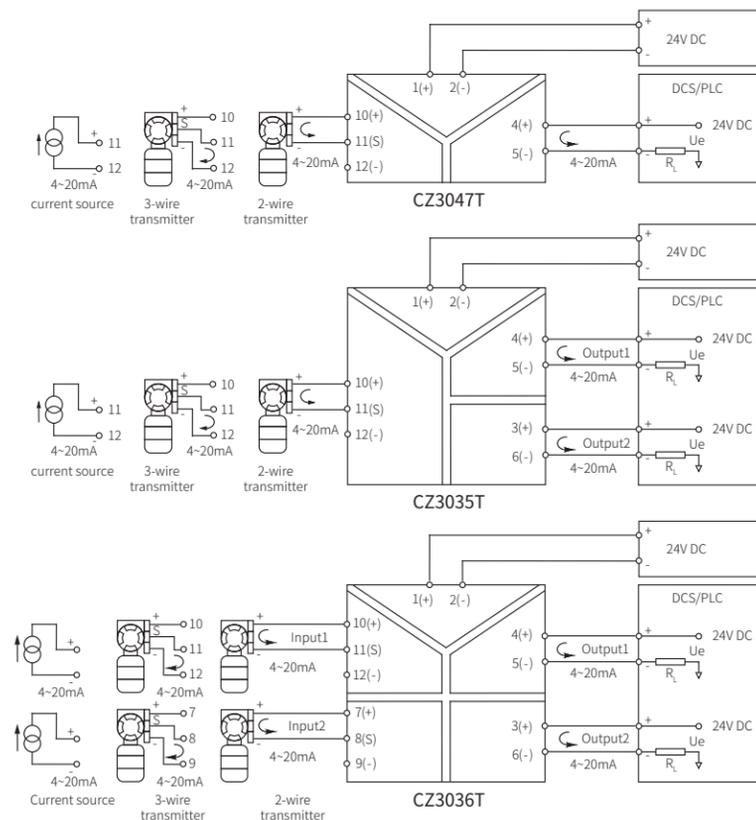
24V DC independent power supply  
 0/4~20mA current input  
 0/4~20mA sink mode output

	CZ3047T 1/1	CZ3035T 1/2	CZ3036T 2/2
<b>Input</b>			
Input Current	0/4~20mA	0/4~20mA	0/4~20mA
Distribution Voltage	17.5~25V	17.5~25V	17.5~25V
Max. Current	<35mA	<35mA	<35mA
<b>Output</b>			
Output Current	0/4~20mA	0/4~20mA	0/4~20mA
Ext.Source Voltage(U <sub>e</sub> )	12~30V	12~30V	12~30V
Load Resistance	$R_L \leq (U_e - 5)/0.02$	$R_L \leq (U_e - 5)/0.02$	$R_L \leq (U_e - 5)/0.02$
<b>General Parameters</b>			
Supply Voltage	20~35V DC	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support	Support
Current Consumption(Supply voltage:24V)	≤40mA	≤45mA	≤80mA
Transmission Accuracy	0.1%F.S.(Typical: 0.05%F.S.)	0.1%F.S.(Typical: 0.05%F.S.)	0.1%F.S.(Typical: 0.05%F.S.)
Temperature Drift	0.005%F.S./°C	0.005%F.S./°C	0.005%F.S./°C
Response Time (0~90%)	≤0.5 ms	≤0.5 ms	≤0.5 ms
Dielectric Strength	1500V AC;1min	1500V AC;1min	1500V AC;1min
Insulation Resistance	≥100MΩ; 500V DC	≥100MΩ; 500V DC	≥100MΩ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-or 3-wire transmitter, current source	2-or 3-wire transmitter, current source	2-or 3-wire transmitter, current source

## Dimensions



## Connection



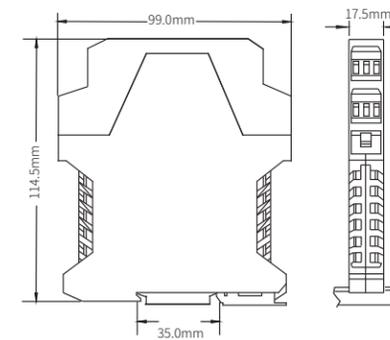
# Analog Input(Loop Powered)

## Features

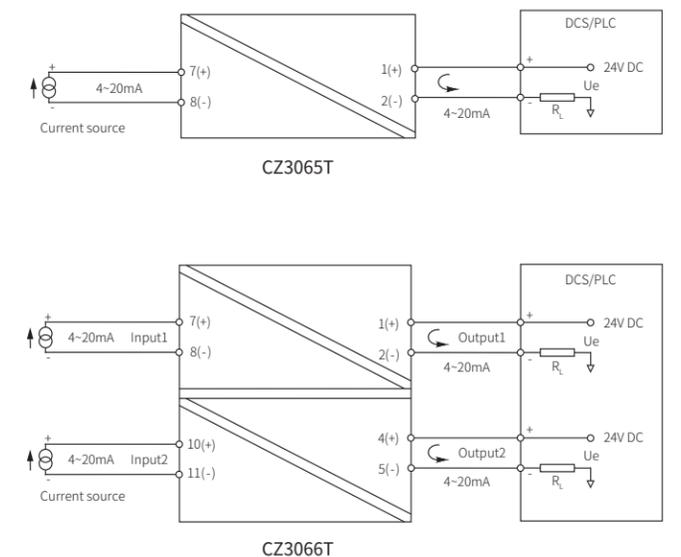
24V DC loop power supply  
 4~20mA current source input  
 4~20mA sink mode output

	CZ3065T 1/1	CZ3066T 2/2
<b>Input</b>		
Input Current	4~20mA	4~20mA
Input Impedance	≤100Ω	≤100Ω
<b>Output</b>		
Output Current	4~20mA	4~20mA
Voltage Drop	≤14V	≤14V
Load Resistance	$R_L \leq (U_e - 14)/0.02$	$R_L \leq (U_e - 14)/0.02$
<b>General Parameters</b>		
Loop Supply Voltage(U <sub>e</sub> )	20~30V DC	20~30V DC
Power Reverse Protection	Support	Support
Transmission Accuracy	0.2%F.S.	0.2%F.S.
Temperature Drift	0.01%F.S./°C	0.01%F.S./°C
Response Time (0~90%)	≤0.5 ms	≤0.5 ms
Dielectric Strength	1500V AC;1min	1500V AC;1min
Insulation Resistance	≥100MΩ; 500V DC	≥100MΩ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	current source	current source

## Dimensions



## Connection



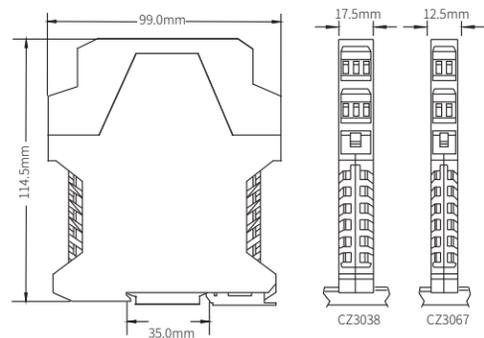
# Analog Output

## Features

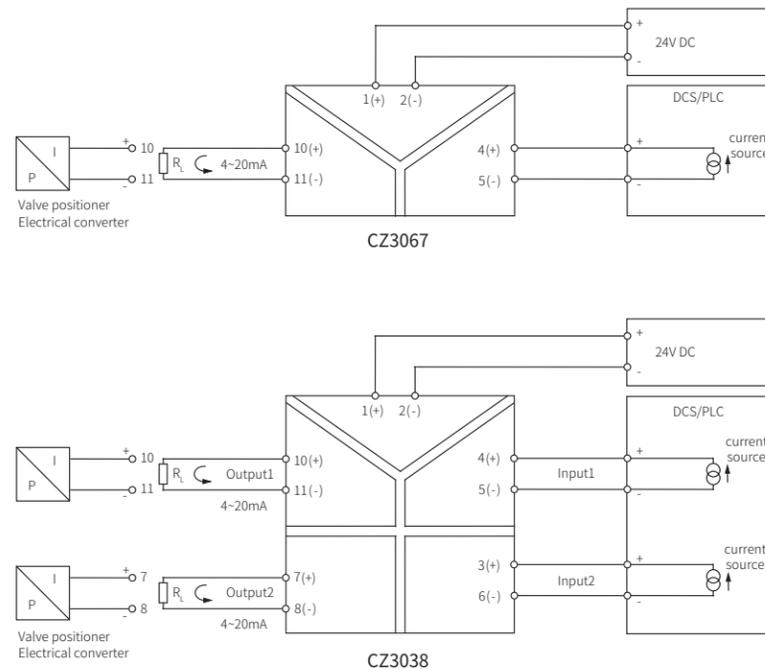
24V DC independent power supply  
0/4~20mA current input/output  
Output load up to 800Ω

	CZ3067 1/1	CZ3038 2/2
<b>Input</b>		
Input Signal	0/4~20mA	0/4~20mA
Input Voltage Drop	≤2V	≤2V
Max. Input Current	<30mA	<30mA
<b>Output</b>		
Output Current/Load Resistance	0(4)~20mA / $R_L \leq 800\Omega$	0(4)~20mA / $R_L \leq 800\Omega$
Max. Output Current	<30mA	<30mA
Output Voltage/Load Resistance	0(1)~5V / $R_L \geq 330k\Omega$	0(1)~5V / $R_L \geq 330k\Omega$
<b>General Parameters</b>		
Supply Voltage	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support
Current Consumption(Supply voltage:24V)	≤40mA	≤65mA
Transmission Accuracy	0.1%F.S.(Typical: 0.05%F.S.)	0.1%F.S.(Typical: 0.05%F.S.)
Temperature Drift	0.005%F.S./°C	0.005%F.S./°C
Response Time (0~90%)	≤2ms	≤2ms
Dielectric Strength	1500V AC;1min	1500V AC;1min
Insulation Resistance	≥100MΩ; 500V DC	≥100MΩ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-wire valve positioner, electrical converter	2-wire valve positioner, electrical converter

## Dimensions



## Connection



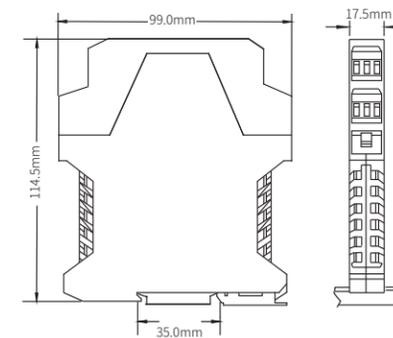
# RTD Input

## Features

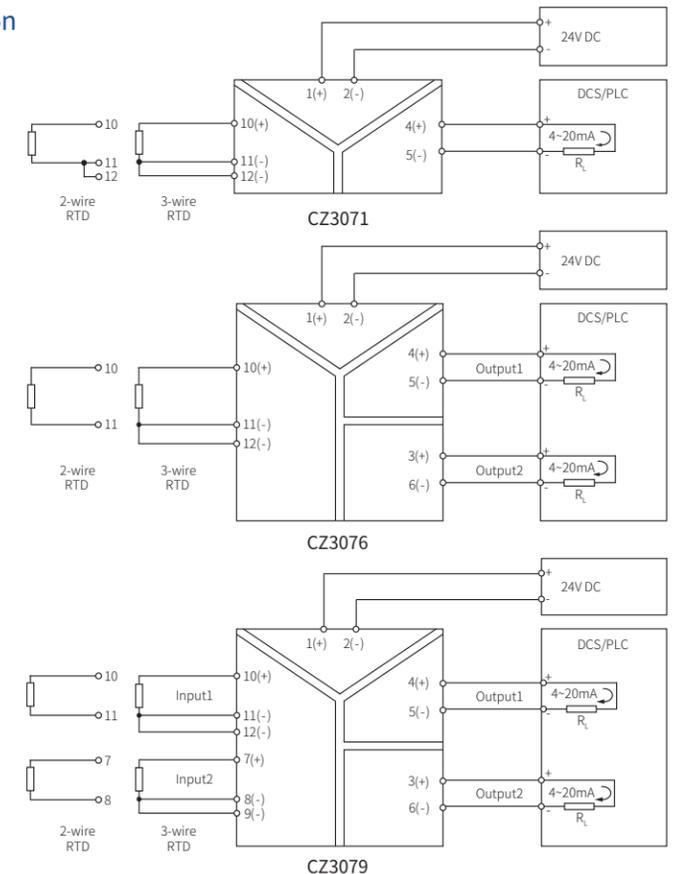
24V DC independent power supply  
Line fault detection(LFD)  
Configurable by software

	CZ3071 1/1	CZ3076 1/2	CZ3079 2/2
<b>Input</b>			
Input Signal	Pt100, Pt1000, Cu100, Cu50	Pt100, Pt1000, Cu100, Cu50	Pt100, Pt1000, Cu100, Cu50
<b>Output</b>			
Output Current/Load Resistance	0~20mA, 4~20mA / $R_L \leq 300\Omega$	0~20mA, 4~20mA / $R_L \leq 300\Omega$	0~20mA, 4~20mA / $R_L \leq 300\Omega$
Output Voltage/Load Resistance	0~5V, 1~5V / $R_L \geq 20k\Omega$	0~5V, 1~5V / $R_L \geq 20k\Omega$	0~5V, 1~5V / $R_L \geq 300k\Omega$
Fault Current of Overrange/Underrange	$I_{in} \approx 20.8mA / I_{in} \approx 3.8mA$	$I_{in} \approx 20.8mA / I_{in} \approx 3.8mA$	$I_{in} \approx 20.8mA / I_{in} \approx 3.8mA$
Fault Current of Line Break	$I \approx 20.8mA$	$I \approx 20.8mA$	$I \approx 20.8mA$
<b>General Parameters</b>			
Supply Voltage	20~35V DC	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support	Support
Current Consumption(Supply voltage:24V)	≤35mA	≤70mA	≤70mA
Conversion Accuracy	0.1%	0.1%	0.1%
Temperature Drift	0.01%F.S./°C	0.01%F.S./°C	0.01%F.S./°C
Response Time (0~90%)	≤1s	≤1s	≤1s
Dielectric Strength	1500V AC;1min	1500V AC;1min	1500V AC;1min
Insulation Resistance	≥100MΩ; 500V DC	≥100MΩ; 500V DC	≥100MΩ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-or 3-wire RTD	2-or 3-wire RTD	2-or 3-wire RTD

## Dimensions



## Connection



Note:

- For 3-wire Input, keep the resistance of the three wires as equal as possible.
- For 2-wire Input, terminal 11, 12(CZ3071) should be shorted.



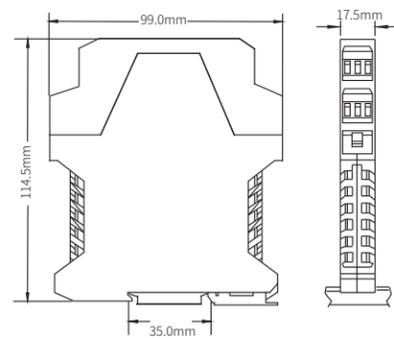
# TC Input

## Features

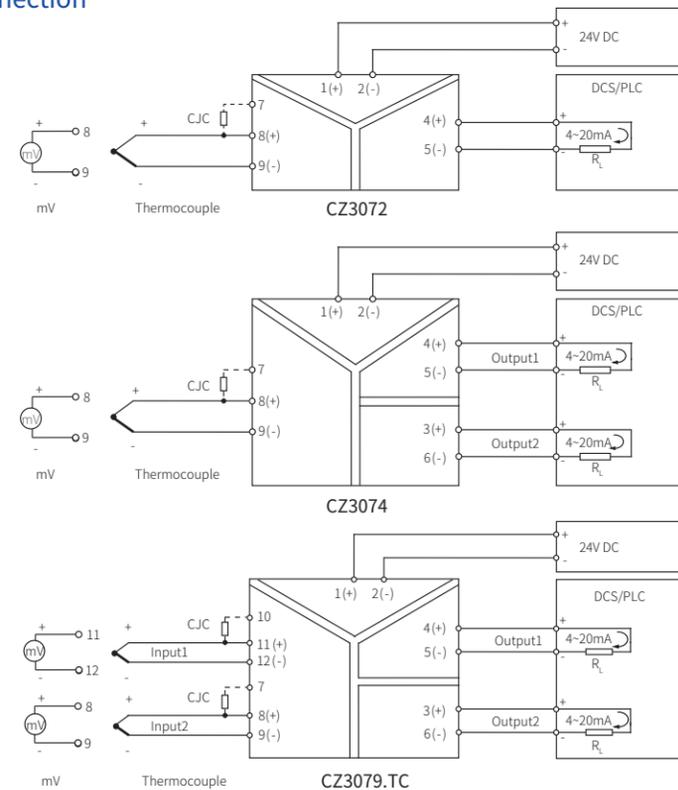
- 24V DC independent power supply
- Line fault detection(LFD)
- Configurable by software
- Integral CJC on terminals

	CZ3072 1/1	CZ3074 1/2	CZ3079.TC 2/2
<b>Input</b>			
Input Signal(Customized mV signal)	T, E, J, K, N, R, S, B, C, D, mV	T, E, J, K, N, R, S, B, C, D, mV	T, E, J, K, N, R, S, B, C, D, mV
Internal CJC Temperature Range	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
CJC Precision	±1°C	±1°C	±1°C
<b>Output</b>			
Output Current/Load Resistance	0~20mA, 4~20mA / $R_L \leq 300\Omega$	0~20mA, 4~20mA / $R_L \leq 300\Omega$	0~20mA, 4~20mA / $R_L \leq 300\Omega$
Output Voltage/Load Resistance	0~5V, 1~5V / $R_L \geq 20k\Omega$	0~5V, 1~5V / $R_L \geq 20k\Omega$	0~5V, 1~5V / $R_L \geq 20k\Omega$
Fault Current of Overrange/Underrange	$I_H \approx 20.8mA / I_L \approx 3.8mA$	$I_H \approx 20.8mA / I_L \approx 3.8mA$	$I_H \approx 20.8mA / I_L \approx 3.8mA$
Fault Current of Line Break	$I \approx 20.8mA$	$I \approx 20.8mA$	$I \approx 20.8mA$
<b>General Parameters</b>			
Supply Voltage	20~35V DC	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support	Support
Current Consumption(Supply voltage:24V)	$\leq 35mA$	$\leq 70mA$	$\leq 70mA$
Conversion Accuracy	See P13 Table 2	See P13 Table 2	See P13 Table 2
Temperature Drift	0.01%F.S./°C	0.01%F.S./°C	0.01%F.S./°C
Response Time (0~90%)	$\leq 1s$	$\leq 1s$	$\leq 1s$
Dielectric Strength	1500V AC;1min	1500V AC;1min	1500V AC;1min
Insulation Resistance	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	TC and mV signal sensor	TC and mV signal sensor	TC and mV signal sensor

## Dimensions



## Connection



# RTD/TC Input(Loop Powered)

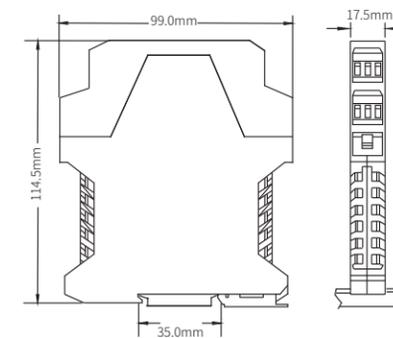
## Features

- 24V DC loop power supply
- Line fault detection(LFD)
- Configurable by software
- Integral CJC on TC input terminals

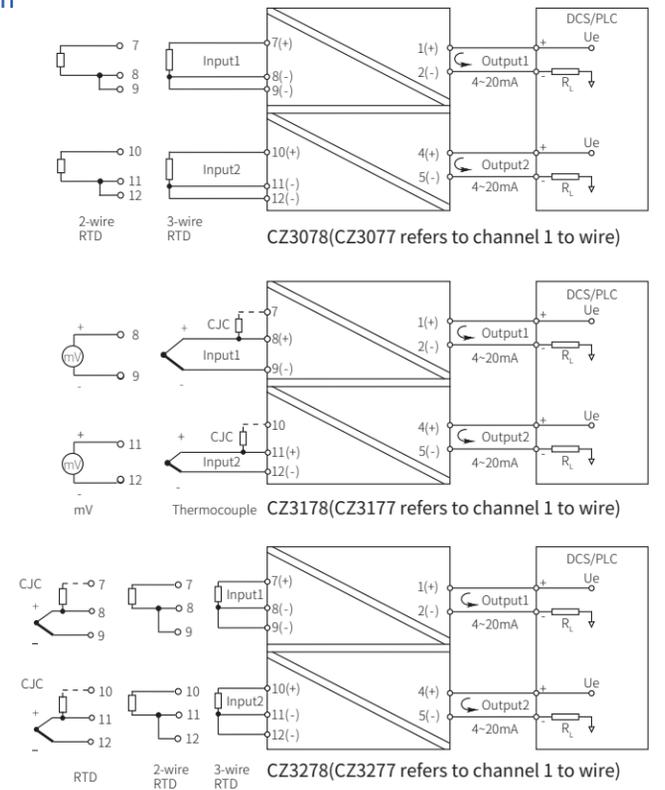
	1/1: CZ3077 2/2: CZ3078	1/1: CZ3177 2/2: CZ3178	1/1: CZ3277 2/2: CZ3278
<b>Input</b>			
Input Signal	Pt100, Cu100, Cu50	T, E, J, K, N, R, S, B (Customized mV signal)	Pt100, Cu100, Cu50 T, E, J, K, N, R, S, B
Internal CJC Temperature Range		-20~+60°C	-20~+60°C
CJC Precision		±1°C	±1°C
<b>Output</b>			
Output Current	4~20mA	4~20mA	4~20mA
Load Resistance	$R_L \leq (U_e - 12)/0.021\Omega$	$R_L \leq (U_e - 12)/0.021\Omega$	$R_L \leq (U_e - 12)/0.021\Omega$
Fault Current of Overrange/Underrange	$I_L \approx 20.8mA / I_L \approx 3.8mA$	$I_L \approx 20.8mA / I_L \approx 3.8mA$	$I_L \approx 20.8mA / I_L \approx 3.8mA$
Fault Current of Line Break	$I \approx 20.8mA$	$I \approx 20.8mA$	$I \approx 20.8mA$
<b>General Parameters</b>			
Loop Supply Voltage( $U_e$ )	12~30V DC	12~30V DC	12~30V DC
Power Reverse Protection	Support	Support	Support
Conversion Accuracy	See P13 Table 2	See P13 Table 2	See P13 Table 2
Temperature Drift	0.01%F.S./°C	0.01%F.S./°C	0.01%F.S./°C
Response Time (0~90%)	$\leq 1s$	$\leq 1s$	$\leq 1s$
Dielectric Strength	1500V AC;1min	1500V AC;1min	1500V AC;1min
Insulation Resistance	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-or 3-wire RTD	TC sensor, mV signal	RTD, TC sensor

Note: Fault current of line break <4mA or other special requirements, need to be customized.

## Dimensions



## Connection



- Note:
- CZ3277/CZ3278 is universal temperature converter. Use standard terminal for RTD input.
  - Use CJC terminal for thermocouple input.9(CZ3079) should be shorted.

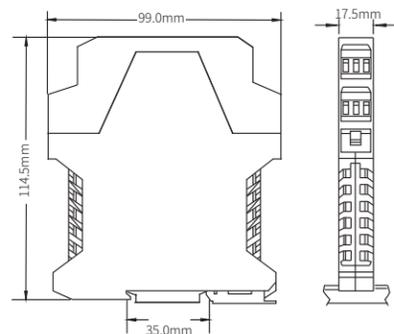
# Potentiometer Input

## Features

- 24V DC independent power supply
- Line fault detection(LFD)
- Configurable by software

	CZ3075 1/1	CZ3076.R 1/2	CZ3079.R 2/2
<b>Input</b>			
Input Signal	0~10kΩ	0~10kΩ	0~10kΩ
<b>Output</b>			
Output Current/Load Resistance	0~20mA, 4~20mA / $R_L \leq 300\Omega$	0~20mA, 4~20mA / $R_L \leq 300\Omega$	0~20mA, 4~20mA / $R_L \leq 300\Omega$
Output Voltage/Load Resistance	0~5V, 1~5V/ $R_L \geq 20k\Omega$	0~5V, 1~5V/ $R_L \geq 20k\Omega$	0~5V, 1~5V/ $R_L \geq 20k\Omega$
Fault Current of Overrange/Underrange	$I_L \approx 20.8mA / I_L \approx 3.8mA$	$I_L \approx 20.8mA / I_L \approx 3.8mA$	$I_L \approx 20.8mA / I_L \approx 3.8mA$
Fault Current of Line Break	$I \approx 20.8mA$	$I \approx 20.8mA$	$I \approx 20.8mA$
<b>General Parameters</b>			
Supply Voltage	20~35V DC	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support	Support
Current Consumption(Supply voltage:24V)	$\leq 40mA$	$\leq 70mA$	$\leq 70mA$
Conversion Accuracy	0.1%	0.1%	0.1%
Temperature Drift	0.01%F.S./°C	0.01%F.S./°C	0.01%F.S./°C
Response Time (0~90%)	$\leq 1s$	$\leq 1s$	$\leq 1s$
Dielectric Strength	1500V AC;1min	1500V AC;1min	1500V AC;1min
Insulation Resistance	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-or 3-wire Potentiometer	2-or 3-wire Potentiometer	2-or 3-wire Potentiometer

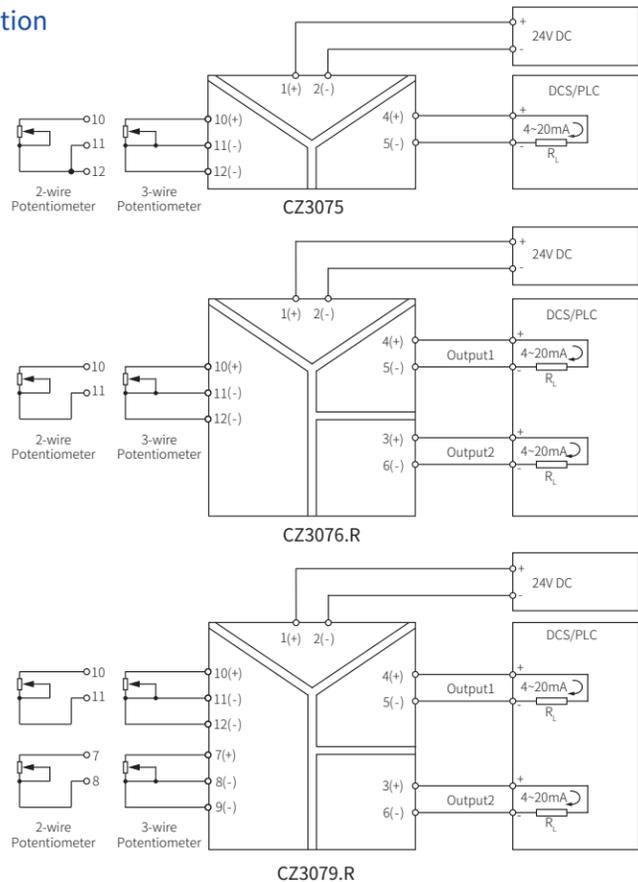
## Dimensions



- Note:
- For 3-wire Input, keep the resistance of the three wires as equal as possible.
  - For 2-wire Input, terminal 11, 12(CZ3075) should be shorted.



## Connection



# Pulse input

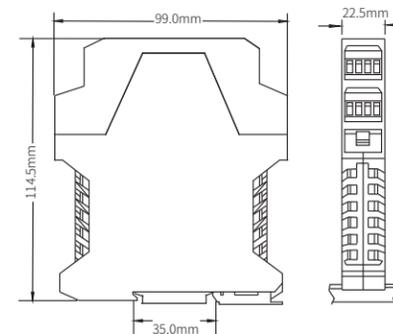
## Features

- 24V DC independent power supply
- PNP/NPN transistor output or voltage pulse output

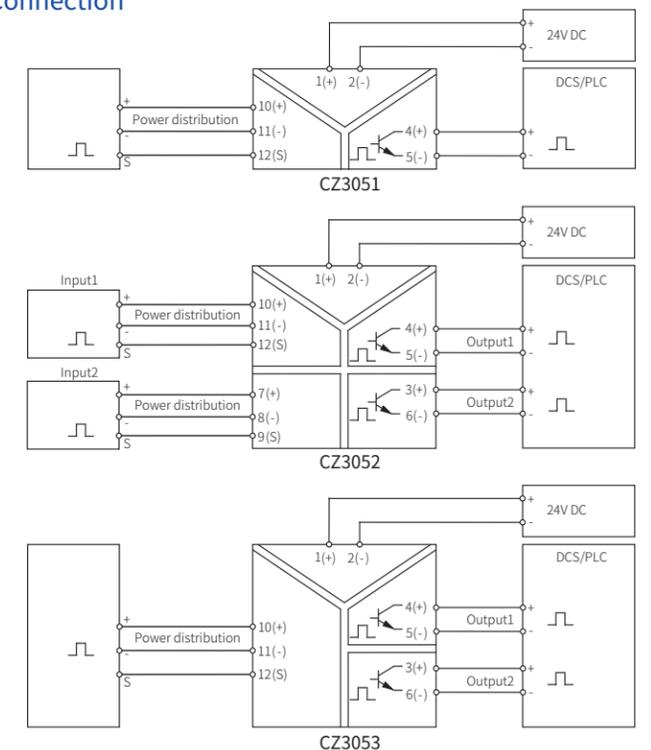
	CZ3051 1/1	CZ3052 2/2	CZ3053 1/2
<b>Input</b>			
Frequency Range	$\leq 10kHz$ , Duty cycle $\geq 30\%$	$\leq 10kHz$ , Duty cycle $\geq 30\%$	$\leq 10kHz$ , Duty cycle $\geq 30\%$
Pulse Voltage Level	$4V \leq V_H \leq 12V$ , $V_L \leq 1V$	$4V \leq V_H \leq 12V$ , $V_L \leq 1V$	$4V \leq V_H \leq 12V$ , $V_L \leq 1V$
Distribution Voltage(Specify when ordering)	No power distribution 5V or 12V or 24V@20mA	No power distribution 5V or 12V or 24V@20mA	No power distribution 5V or 12V or 24V@20mA
<b>Output</b>			
External Supply Voltage Vcc (Transistor output)	$\leq 35V$ DC	$\leq 35V$ DC	$\leq 35V$ DC
Max.on-stage Current(Transistor output)	$\leq 35mA$	$\leq 35mA$	$\leq 35mA$
Transistor Collector Output	$V_H: V_{cc}$ , $V_L: \leq 2.5V$	$V_H: V_{cc}$ , $V_L: \leq 2.5V$	$V_H: V_{cc}$ , $V_L: \leq 2.5V$
Pull-up Resistance	$2k\Omega \leq R_L \leq 20k\Omega$	$2k\Omega \leq R_L \leq 20k\Omega$	$2k\Omega \leq R_L \leq 20k\Omega$
Transistor Emitter Output	$V_H: V_{cc}-2.5V$ , $V_L: \leq 0.5V$	$V_H: V_{cc}-2.5V$ , $V_L: \leq 0.5V$	$V_H: V_{cc}-2.5V$ , $V_L: \leq 0.5V$
Pull-down Resistance	$2k\Omega \leq R_L \leq 10k\Omega$	$2k\Omega \leq R_L \leq 10k\Omega$	$2k\Omega \leq R_L \leq 10k\Omega$
Voltage Pulse Output	$V_H: 4.5V \leq V_H \leq 24V$ , $V_L: \leq 0.5V$	$V_H: 4.5V \leq V_H \leq 24V$ , $V_L: \leq 0.5V$	$V_H: 4.5V \leq V_H \leq 24V$ , $V_L: \leq 0.5V$
Load Resistance	$R_L \geq 1k\Omega$	$R_L \geq 1k\Omega$	$R_L \geq 1k\Omega$
<b>General Parameters</b>			
Supply Voltage	20~35V DC	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support	Support
Current Consumption (Supply voltage:24V, no power distribution)	$\leq 30mA$	$\leq 55mA$	$\leq 50mA$
Dielectric Strength	1500V AC;1min	1500V AC;1min	1500V AC;1min
Insulation Resistance	$\geq 100M\Omega$	$\geq 100M\Omega$	$\geq 100M\Omega$
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-or 3-wire voltage pulse source	2-or 3-wire voltage pulse source	2-or 3-wire voltage pulse source

Note: Voltage pulse output can be selected 5V, 12 and 24V.  $V_H$  is related to the output level. See the manual for details.

## Dimensions



## Connection



# Frequency Converter

## Features

- 24V DC independent power supply
- Acquisition of NPN, PNP, NAMUR, and frequency signals
- Line fault detection(LFD)
- Configurable by software

## Input

PNP / NPN Transistor	Power distribution:14V, current<20mA
Voltage Pulse Source	Max. Input voltage:30V
Switch/Proximity Switch	Power distribution≈8V, Short-circuit current≈8mA
Frequency Range / Pulse Width	0.1Hz~100kHz/≥2μs

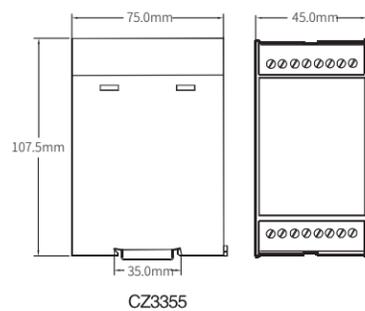
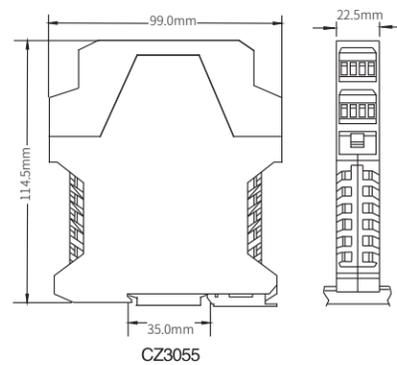
## Output

Output Current/Load Resistance	0~20mA, 4~20mA / $R_L \leq 400\Omega$
Output Voltage/Load Resistance	0~5V, 1~5V / $R_L \geq 300k\Omega$
Relay Output	1*SPST
Contact Rating	250V AC,2A / 30V DC,2A; Resistive load
Response Time @100kHz input(0~90%)	≤20ms

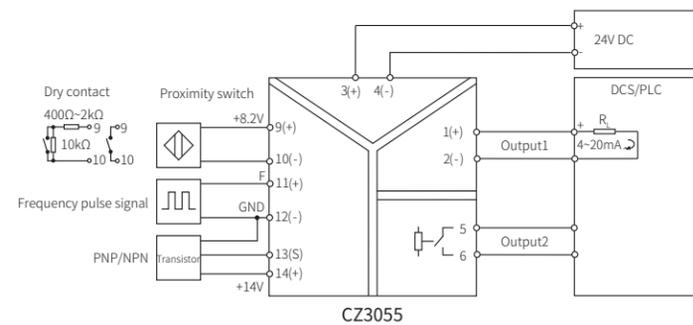
## General Parameters

Supply Voltage	20~35V DC
Power Reverse Protection	Support
Current Consumption(Supply voltage: 24V)	≤90mA
Conversion Accuracy	0.1%F.S.(Typical≤0.05%F.S.)
Temperature Drift	0.01% F.S./°C
Dielectric Strength	1500V AC;1min
Insulation Resistance	≥100MΩ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C
Suitable Field Apparatus	

## Dimensions



## Connection



## Features

- 24V DC independent power supply
- Vibration transducer input
- 10~+10V voltage input/output

## Input

Input Voltage	-10V~+10V
Input Impedance	10kΩ

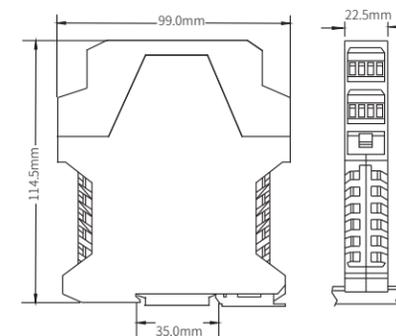
## Output

Output Voltage	-10V~+10V
Load Resistance	$R_L \geq 20k\Omega$

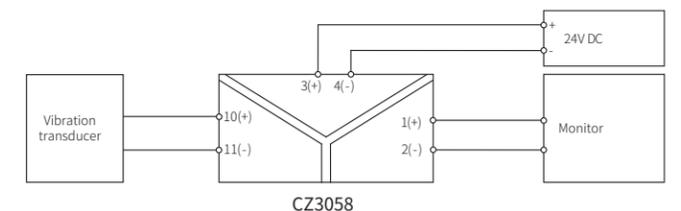
## General Parameters

Supply Voltage	20~35V DC
Power Reverse Protection	Support
Current Consumption(Supply voltage:24V)	≤40mA
DC Transmission Accuracy	< ±0.2%F.S.
AC Transmission Accuracy	0Hz~600Hz: ±0.2%F.S. 600Hz~10kHz: -1.5%~+0.2%F.S.
Phase Response(0~90%)	<10μs
Voltage Bandwidth(-3dB)	≥40kHz
Temperature Drift	100ppm/°C
Dielectric Strength	1500V AC;1min
Insulation Resistance	≥100MΩ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C
Suitable Field Apparatus	Vibration transducer

## Dimensions



## Connection



# Voltage Input

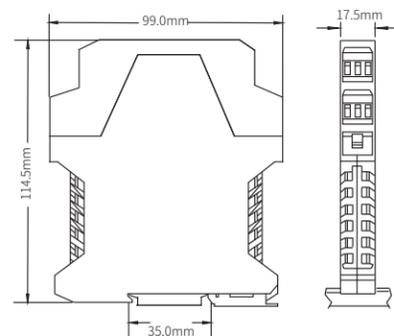
## Features

- 24V DC independent power supply
- Multiple voltage input
- Multiple current/voltage output

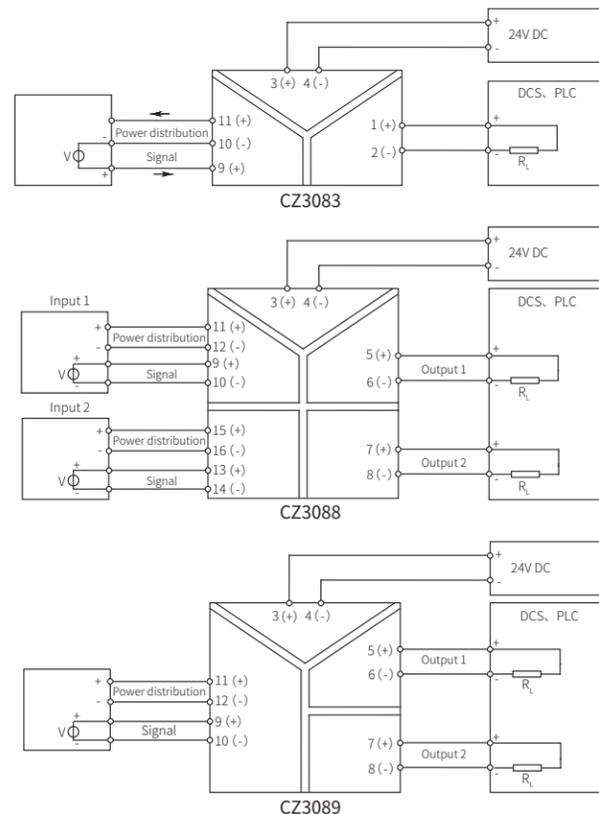
	CZ3083 1/1	CZ3088 2/2	CZ3089 1/2
<b>Input</b>			
Input Voltage	0~5V, 1~5V, 0~10V	0~5V, 1~5V, 0~10V	0~5V, 1~5V, 0~10V
Input Impedance	$\geq 100k\Omega$	$\geq 100k\Omega$	$\geq 100k\Omega$
Distribution Voltage(Specify when ordering)	No power distribution 10V or 15V@20mA	No power distribution 10V or 15V@20mA	No power distribution 10V or 15V@20mA
<b>Output</b>			
Output Current	0~20mA, 4~20mA	0~20mA, 4~20mA	0~20mA, 4~20mA
Load Resistance(Current output)	$R_L \leq 300\Omega$	$R_L \leq 300\Omega$	$R_L \leq 300\Omega$
Output Voltage	0~5V, 1~5V, 0~10V	0~5V, 1~5V, 0~10V	0~5V, 1~5V, 0~10V
Load Resistance(Voltage output)	$R_L \geq 20k\Omega$	$R_L \geq 20k\Omega$	$R_L \geq 20k\Omega$
<b>General Parameters</b>			
Supply Voltage	20~35V DC	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support	Support
Current Consumption(Supply voltage:24V, power distribution current: 20mA)	$\leq 110mA$	$\leq 130mA$	$\leq 130mA$
Transmission Accuracy	0.1%F.S.	0.1%F.S.	0.1%F.S.
Temperature Drift	0.005%F.S./°C	0.005%F.S./°C	0.005%F.S./°C
Response Time (0~90%)	$\leq 0.1s$	$\leq 0.1s$	$\leq 0.1s$
Dielectric Strength	1500V AC;1min	1500V AC;1min	1500V AC;1min
Insulation Resistance	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	Voltage source output device	Voltage source output device	Voltage source output device

Note: CZ3088,CZ3089 can only order no power distribution module when current output.

## Dimensions



## Connection



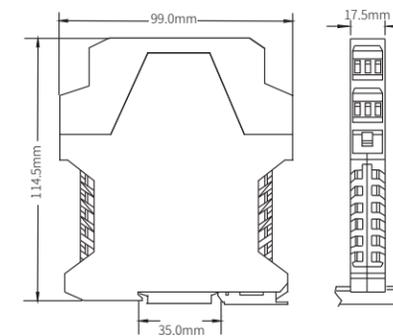
# Communication Input

## Features

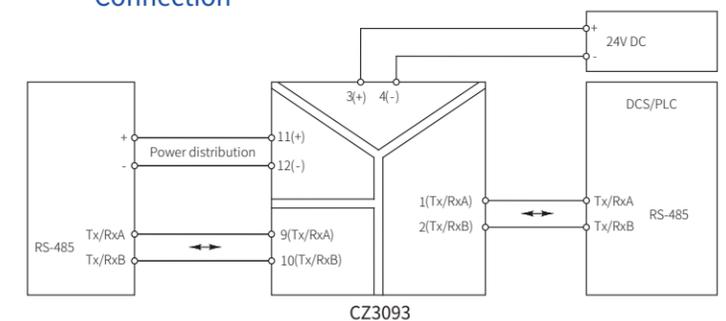
- 24V DC independent power supply
- Automatic transmit/receive changeover
- Transmission speed up to 56kbps

	CZ3093 1/1
<b>Input</b>	
Input Signal	RS-485 half duplex
Distribution Voltage(Specify when ordering)	5V or 6V@100mA 8V or 9V or 12V@50mA
<b>Output</b>	
Output Signal	RS-485 half duplex
Communication Signal Specification	RS-485
Signal Level Rules	standard RS-485 differential level
Transmission Delay	$\leq 10\mu s$
Serial Transmission Speed	$\leq 56kbps$
<b>General Parameters</b>	
Supply Voltage	20~35V DC
Power Reverse Protection	Support
Current Consumption(Supply voltage:24V, power distribution: 6V/100mA)	$\leq 160mA$
Dielectric Strength	1500V AC;1min
Insulation Resistance	$\geq 100M\Omega$
EMC Standards	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C
Suitable Field Apparatus	Device with RS-485 communication interface

## Dimensions



## Connection



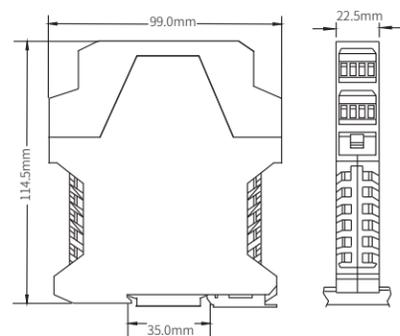
# Signal Splitter

## Features

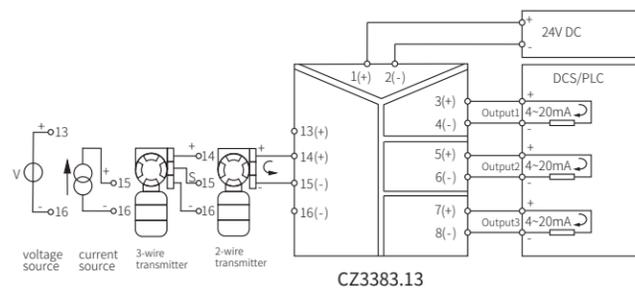
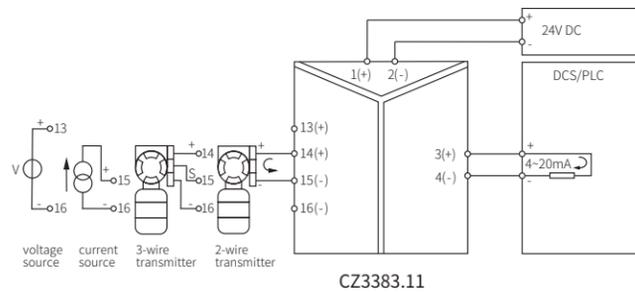
- 24V DC independant power supply
- 1 channle current/voltage input
- Multiple channles current/voltage ouput

	CZ3383.11 1/1	CZ3383.13 1/3
<b>Input</b>		
Input Current/Input Impedance	0~20mA, 4~20mA/≤100Ω	0~20mA, 4~20mA/≤100Ω
Input Voltage/Input Impedance	0~5V, 1~5V/≥100kΩ 0~10V, 2~10V/≥300kΩ	0~5V, 1~5V/≥100kΩ 0~10V, 2~10V/≥300kΩ
Power Distribution	≥15.5V/20mA	≥15.5V/20mA
<b>Output</b>		
Output Current	0~20mA, 4~20mA	0~20mA, 4~20mA
Load Resistance(Current output)	$R_L \leq 300\Omega$	$R_L \leq 300\Omega$
Output Voltage	0~5V, 1~5V, 0~10V, 2~10V	0~5V, 1~5V, 0~10V, 2~10V
Load Resistance(Voltage output)	$R_L \geq 2k\Omega$	$R_L \geq 2k\Omega$
Fault Indicator and Current	When line break/line shorted, the alarm light flashes and the output is 0mA.	
<b>General Parameters</b>		
Supply Voltage	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support
Current Consumption(Supply voltage:24V)	≤70mA	≤100mA
Transmission Accuracy	0.1%F.S.	0.1%F.S.
Temperature Drift	0.01%F.S./°C	0.01%F.S./°C
Response Time (0~90%)	≤0.5s	≤0.5s
Dielectric Strength	1500V AC;1min	1500V AC;1min
Insulation Resistance	≥100MΩ; 500V DC	≥100MΩ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-or 3-wire transmitter, current source, voltage source	2-or 3-wire transmitter, current source, voltage source

## Dimensions



## Connection



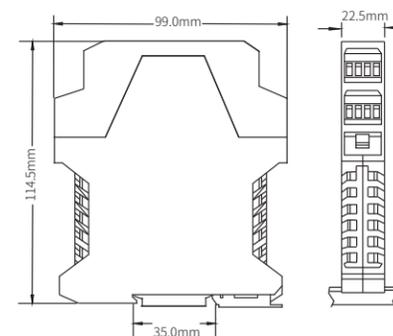
# Signal Splitter

## Features

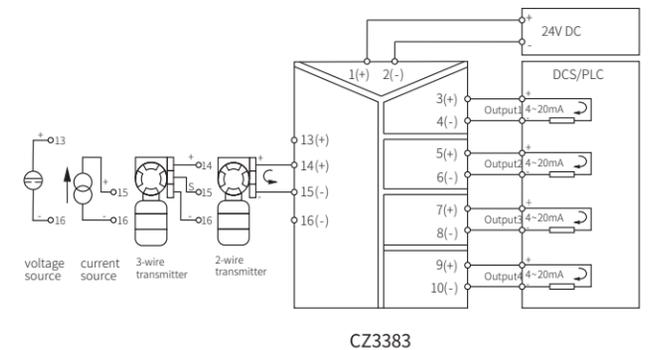
- 24V DC independent power supply
- Signal splitter(1 input,4 output)

	CZ3383 1/4
<b>Input</b>	
Input Current/Input Impedance	0~20mA, 4~20mA/≤100Ω
Input Voltage/Input Impedance	0~5V, 1~5V/≥100kΩ 0~10V, 2~10V/≥300kΩ
Power Distribution	≥15.5V/20mA
<b>Output</b>	
Output Current	0~20mA, 4~20mA
Load Resistance(Current output)	$R_L \leq 300\Omega$
Output Voltage	0~5V, 1~5V, 0~10V, 2~10V
Load Resistance(Voltage output)	$R_L \geq 2k\Omega$
Fault Indicator and Current	When line break/line shorted, the alarm light flashes and the output is 0mA.
<b>General Parameters</b>	
Supply Voltage	20~35V DC
Power Reverse Protection	Support
Current Consumption(Supply voltage:24V)	≤110mA
Transmission Accuracy	0.1%F.S.
Temperature Drift	0.01%F.S./°C
Response Time (0~90%)	≤0.5s
Dielectric Strength	1500V AC;1min
Insulation Resistance	≥100MΩ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C
Suitable Field Apparatus	2-or 3-wire transmitter, current source, voltage source

## Dimensions



## Connection



# CZ3500 Range

CZ3500 range rail-powered signal conditioners are high-performance products. The new design concept and technology are perfectly combined to achieve various performance characteristics, such as high-precision, small-volume, easy installation and high interference suppression, ensuring more convenient system integration and more reliable operation.

**Redundant Power Supply**  
Redundant power supply to the module is achieved when the rail is powered, ensuring that the system is safe.

**Easy to Configure**  
Configure the parameters via software easily and quickly

**Strong EMC Performance**  
Specially designed high dielectric strength transformer achieves reliable galvanic isolation and anti-interference among power supply, input, and output.

**Bus Powered**  
Reduce installation costs and make wiring easier.

**High Conversion Accuracy**  
The electromagnetic isolation technology is used to directly and efficiently convert the signal, and the precision is better than 0.05% F.S.



Field Instrument	Application	Module No.	Channels	Input	Output	Features	Page
	Analog Input	CZ3547	1/1	0/4~20mA	0/4~20mA	Independent powered	33
		CZ3535	1/2		0/1~5V		
		CZ3536	2/2				
	Analog Output	CZ3567	1/1	0/4~20mA	0/4~20mA	Independent powered	34
		CZ3538	2/2		0/1~5V		
	Temperature Converters	CZ3571	1/1	RTD	0~20mA, 4~20mA	Independent powered	35
		CZ3576	1/2		0~5V, 1~5V		
		CZ3579	2/2				
		CZ3572	1/1	TC	0~20mA, 4~20mA		36
		CZ3574	1/2		0~5V, 1~5V		
		CZ3579.TC	2/2				
		CZ3575	1/1	0~5kΩ	0~20mA, 4~20mA		37
		CZ3576.R	1/2		0~10kΩ		
CZ3579.R	2/2						
	Power Supply Feed Module	CZ3500-B		21.5V~25V	21.5V~25V	Redundant power supply	38

Table 3 Input Signal Type and Range

	Type	Range	Min.Span	Accuracy
TC	T	-200°C~+400°C	50°C	0.5°C/0.1%
	E	-200°C~+900°C	50°C	0.5°C/0.1%
	J	-200°C~+1200°C	50°C	0.5°C/0.1%
	K	-200°C~+1372°C	50°C	0.5°C/0.1%
	N	-200°C~+1300°C	50°C	0.5°C/0.1%
	R	-40°C~+1768°C	500°C	1.5°C/0.1%
	S	-40°C~+1768°C	500°C	1.5°C/0.1%
	B	+320°C~+1820°C	500°C	1.5°C/0.1%
	C	0°C~+2200°C	500°C	1.5°C/0.1%
	D	0°C~+2200°C	500°C	1.5°C/0.1%
RTD	Pt100	-200°C~+850°C	20°C	0.2°C/0.1%
	Pt1000	-200°C~+300°C	20°C	0.2°C/0.1%
	Cu50	-50°C~+150°C	20°C	0.2°C/0.1%
	Cu100	-50°C~+150°C	20°C	0.2°C/0.1%
mV		-100mV~+100mV	10mV	20μV/0.1%
	Potentiometer	0kΩ~400Ω	50Ω	0.2Ω/0.1%
		0kΩ~2.5kΩ	250Ω	1.25Ω/0.1%
	0kΩ~10kΩ	1000Ω	5Ω/0.1%	

Note:

- The “%” of conversion accuracy is relative to its range. Take the larger value between the range error and the absolute error when applying.
- Allow a maximum wire resistance of 50Ω/line for RTD input(3-wire).
- When the thermocouple is input, the conversion accuracy does not include the C.J.C. For every 100Ω increase in the compensation wire, the cold junction error increases by 0.2°C.
- When the Type B thermocouple is input, the lower limit of temperature range is required to be greater than 680 °C to ensure the accuracy index.

### Configuration Accessory

Configuration Tool: USBCOM-MINI



Software: Easyconfig



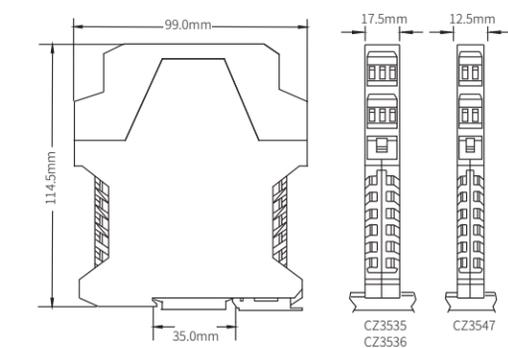
# Analog Input

## Features

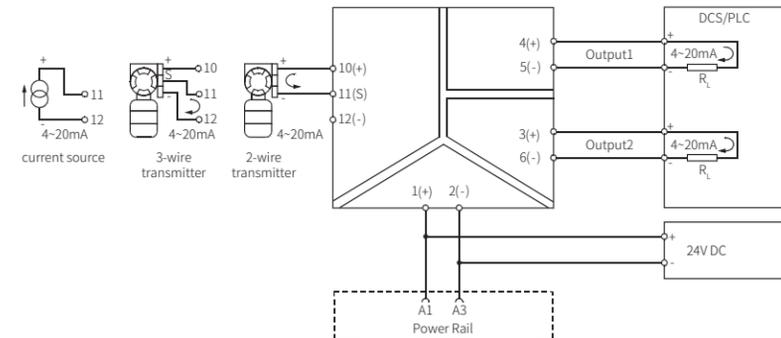
- 24V DC independent power supply
- 0/4~20mA current input
- 0/4~20mA current source output
- Powered via DIN bus or terminal

	CZ3547 1/1	CZ3535 1/2	CZ3536 2/2
<b>Input</b>			
Input Current	0/4~20mA	0/4~20mA	0/4~20mA
Input Impedance	≤50Ω	≤50Ω	≤50Ω
Distribution Voltage	17.5V~25V	17.5V~25V	17.5V~25V
Max.Input Current	<35mA	<35mA	<35mA
<b>Output</b>			
Output Current/Load Resistance	0(4)~20mA / $R_L \leq 800\Omega$	0(4)~20mA / $R_L \leq 300\Omega$	0(4)~20mA / $R_L \leq 300\Omega$
Output Voltage/Load Resistance	0(1)~5V / $R_L \geq 330k\Omega$ 0(2)~10V / $R_L \geq 660k\Omega$	0(1)~5V / $R_L \geq 330k\Omega$ 0(2)~10V / $R_L \geq 660k\Omega$	0(1)~5V / $R_L \geq 330k\Omega$ 0(2)~10V / $R_L \geq 660k\Omega$
<b>General Parameters</b>			
Supply Voltage	20~35V DC	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support	Support
Current Consumption(Supply voltage:24V)	≤60mA	≤75mA	≤100mA
Transmission Accuracy	0.1%F.S. (Typical: 0.05%F.S.)	0.1%F.S. (Typical: 0.05%F.S.)	0.1%F.S. (Typical: 0.05%F.S.)
Temperature Drift	0.005%F.S./°C	0.005%F.S./°C	0.005%F.S./°C
Response Time (0~90%)	≤0.5 ms	≤0.5 ms	≤0.5 ms
Dielectric Strength	1500V DC;1min	1500V DC;1min	1500V DC;1min
Insulation Resistance	≥100MΩ; 500V DC	≥100MΩ; 500V DC	≥100MΩ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-or 3-wire transmitter, current source	2-or 3-wire transmitter, current source	2-or 3-wire transmitter, current source

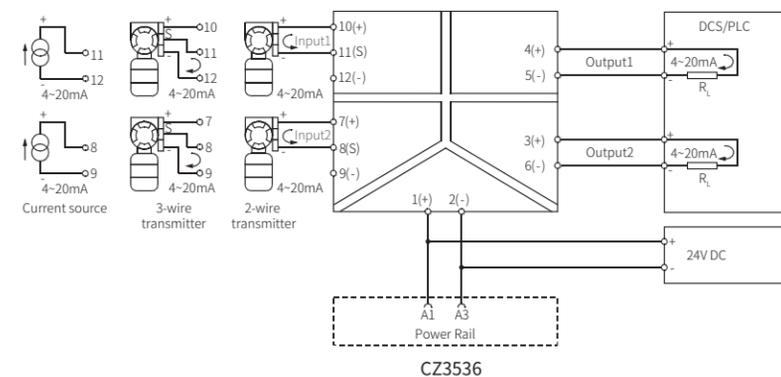
## Dimensions



## Connection



CZ3535(CZ3547 Output part only contains output 1)



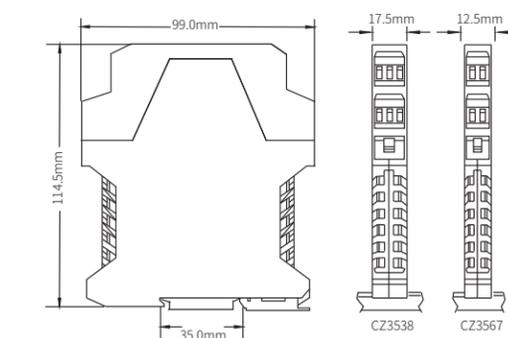
# Analog Output

## Features

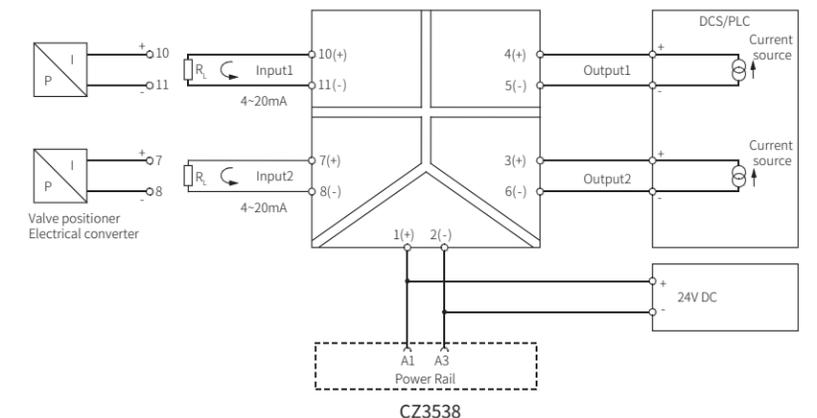
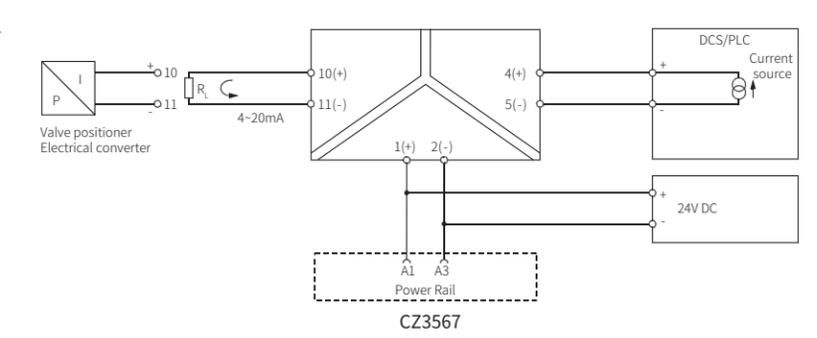
- 24V DC independent power supply
- 0/4~20mA current input/output
- Output load up to 800Ω
- Powered via DIN bus or terminal

	CZ3567 1/1	CZ3538 2/2
<b>Input</b>		
Input Current	0/4~20mA	0/4~20mA
Input Voltage Drop	≤2V	≤2V
Max. Input Current	<30mA	<30mA
<b>Output</b>		
Output Current/Load Resistance	0(4)~20mA / $R_L \leq 800\Omega$	0(4)~20mA / $R_L \leq 800\Omega$
Max. Output Current	<30mA	<30mA
Output Voltage/Load Resistance	0(1)~5V / $R_L \geq 330k\Omega$	0(1)~5V / $R_L \geq 330k\Omega$
<b>General Parameters</b>		
Supply Voltage	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support
Current Consumption(Supply voltage:24V)	≤40mA	≤65mA
Transmission Accuracy	0.1%F.S.(Typical: 0.05%F.S.)	0.1%F.S.(Typical: 0.05%F.S.)
Temperature Drift	0.005%F.S./°C	0.005%F.S./°C
Response Time (0~90%)	≤2ms	≤2ms
Dielectric Strength	1500V DC;1min	1500V DC;1min
Insulation Resistance	≥100MΩ; 500V DC	≥100MΩ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-wire Valve positioner, Electrical converter	2-wire Valve positioner, Electrical converter

## Dimensions



## Connection



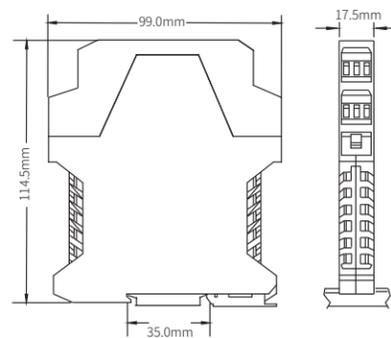
# RTD Input

## Features

- 24V DC independent power supply
- Line fault detection(LFD)
- Configurable by software
- Powered via DIN bus or terminal

	CZ3571 1/1	CZ3576 1/2	CZ3579 2/2
<b>Input</b>			
Input Signal	Pt100, Pt1000, Cu100, Cu50	Pt100, Pt1000, Cu100, Cu50	Pt100, Pt1000, Cu100, Cu50
<b>Output</b>			
Output Current/Load Resistance	0~20mA, 4~20mA / $R_L \leq 300\Omega$	0~20mA, 4~20mA / $R_L \leq 300\Omega$	0~20mA, 4~20mA / $R_L \leq 300\Omega$
Output Voltage/Load Resistance	0~5V, 1~5V / $R_L \geq 20k\Omega$	0~5V, 1~5V / $R_L \geq 20k\Omega$	0~5V, 1~5V / $R_L \geq 20k\Omega$
Fault Current of Overrange/Underrange	$I_L \approx 20.8mA / I_L \approx 3.8mA$	$I_L \approx 20.8mA / I_L \approx 3.8mA$	$I_L \approx 20.8mA / I_L \approx 3.8mA$
Fault Current of Line Break	$I \approx 20.8mA$	$I \approx 20.8mA$	$I \approx 20.8mA$
<b>General Parameters</b>			
Supply Voltage	20~35V DC	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support	Support
Current Consumption(Supply voltage:24V)	$\leq 35mA$	$\leq 55mA$	$\leq 55mA$
Conversion Accuracy	See P32 Table 3	See P32 Table 3	See P32 Table 3
Temperature Drift	0.01%F.S./ $^{\circ}C$	0.01%F.S./ $^{\circ}C$	0.01%F.S./ $^{\circ}C$
Response Time (0~90%)	$\leq 1s$	$\leq 1s$	$\leq 1s$
Dielectric Strength	1500V DC;1min	1500V DC;1min	1500V DC;1min
Insulation Resistance	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC	$\geq 150M\Omega$ ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20 $^{\circ}C$ ~+60 $^{\circ}C$	-20 $^{\circ}C$ ~+60 $^{\circ}C$	-20 $^{\circ}C$ ~+60 $^{\circ}C$
Suitable Field Apparatus	2-or 3-wire RTD	2-or 3-wire RTD	2-or 3-wire RTD

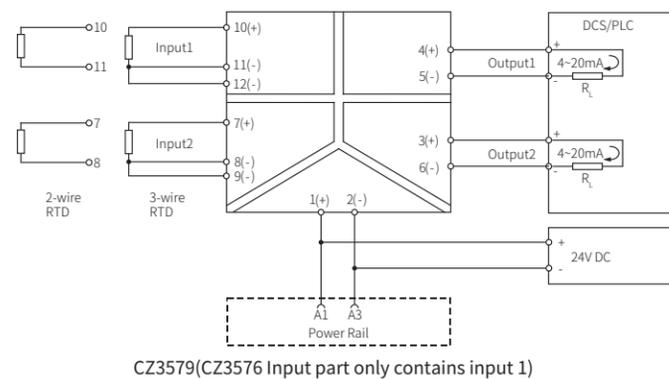
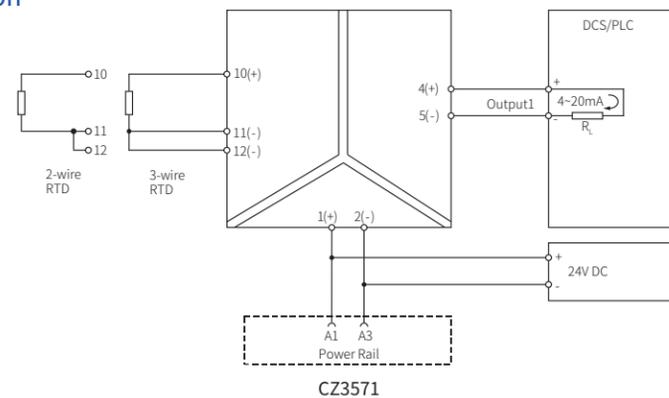
## Dimensions



- Note:
- For 3-wire Input, keep the resistance of the three wires as equal as possible.
  - For 2-wire Input, terminal 11, 12(CZ3571) should be shorted.



## Connection



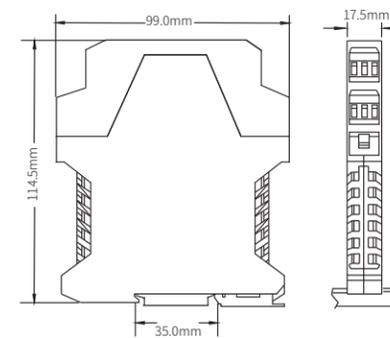
# TC Input

## Features

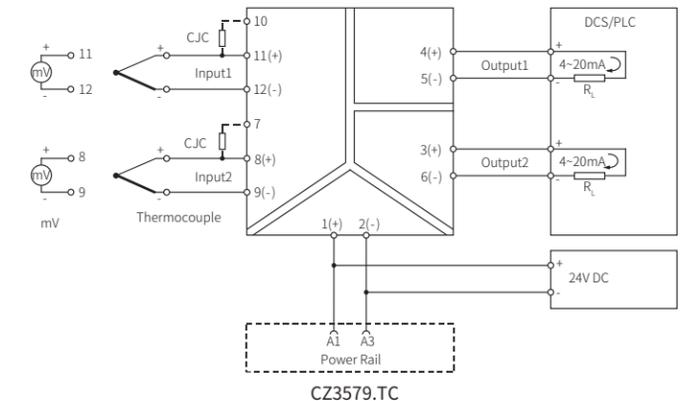
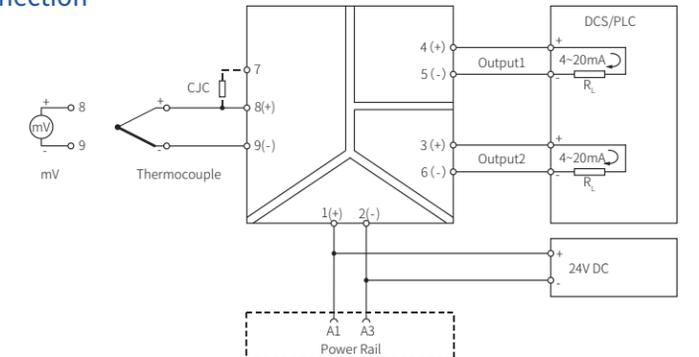
- 24V DC independent power supply
- Line fault detection(LFD)
- Configurable by software
- Integral CJC on terminals
- Powered via DIN bus or terminal

	CZ3572 1/1	CZ3574 1/2	CZ3579.TC 2/2
<b>Input</b>			
Input Signal(Customized mV signal)	T, E, J, K, N, R, S, B, C, D, mV	T, E, J, K, N, R, S, B, C, D, mV	T, E, J, K, N, R, S, B, C, D, mV
Internal CJC Temperature Range	-20 $^{\circ}C$ ~+60 $^{\circ}C$	-20 $^{\circ}C$ ~+60 $^{\circ}C$	-20 $^{\circ}C$ ~+60 $^{\circ}C$
CJC Precision	$\pm 1^{\circ}C$	$\pm 1^{\circ}C$	$\pm 1^{\circ}C$
<b>Output</b>			
Output Current/Load Resistance	0~20mA, 4~20mA / $R_L \leq 300\Omega$	0~20mA, 4~20mA / $R_L \leq 300\Omega$	0~20mA, 4~20mA / $R_L \leq 300\Omega$
Output Voltage/Load Resistance	0~5V, 1~5V / $R_L \geq 20k\Omega$	0~5V, 1~5V / $R_L \geq 20k\Omega$	0~5V, 1~5V / $R_L \geq 20k\Omega$
Fault Current of Overrange/Underrange	$I_L \approx 20.8mA / I_L \approx 3.8mA$	$I_L \approx 20.8mA / I_L \approx 3.8mA$	$I_L \approx 20.8mA / I_L \approx 3.8mA$
Fault Current of Line Break	$I \approx 20.8mA$	$I \approx 20.8mA$	$I \approx 20.8mA$
<b>General Parameters</b>			
Loop Supply Voltage(U <sub>L</sub> )	20~35V DC	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support	Support
Current Consumption(Supply voltage: 24V)	$\leq 35mA$	$\leq 70mA$	$\leq 70mA$
Conversion Accuracy	See P32 Table 3	See P32 Table 3	See P32 Table 3
Temperature Drift	0.01%F.S./ $^{\circ}C$	0.01%F.S./ $^{\circ}C$	0.01%F.S./ $^{\circ}C$
Response Time (0~90%)	$\leq 1s$	$\leq 1s$	$\leq 1s$
Dielectric Strength	1500V DC;1min	1500V DC;1min	1500V DC;1min
Insulation Resistance	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20 $^{\circ}C$ ~+60 $^{\circ}C$	-20 $^{\circ}C$ ~+60 $^{\circ}C$	-20 $^{\circ}C$ ~+60 $^{\circ}C$
Suitable Field Apparatus	TC sensor and mV signal	TC sensor and mV signal	TC sensor and mV signal

## Dimensions



## Connection



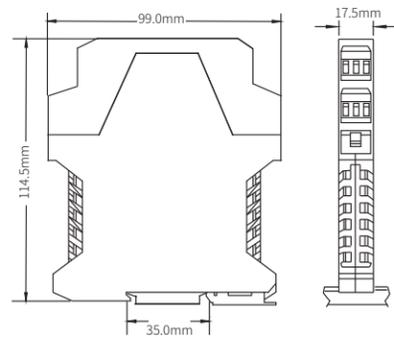
# Potentiometer Input

## Features

- 24V DC independent power supply
- Line fault detection(LFD)
- Configurable by software
- Powered via DIN bus or terminal

	CZ3575 1/1	CZ3576.R 1/2	CZ3579.R 2/2
<b>Input</b>			
Input Signal	0~10kΩ	0~10kΩ	0~10kΩ
<b>Output</b>			
Output Current/Load Resistance	0~20mA, 4~20mA / $R_L \leq 300\Omega$	0~20mA, 4~20mA / $R_L \leq 300\Omega$	0~20mA, 4~20mA / $R_L \leq 300\Omega$
Output Voltage/Load Resistance	0~5V, 1~5V / $R_L \geq 20k\Omega$	0~5V, 1~5V / $R_L \geq 20k\Omega$	0~5V, 1~5V / $R_L \geq 20k\Omega$
<b>General Parameters</b>			
Supply Voltage	20~35V DC	20~35V DC	20~35V DC
Power Reverse Protection	Support	Support	Support
Current Consumption(Supply voltage:24V)	$\leq 40mA$	$\leq 70mA$	$\leq 70mA$
Conversion Accuracy	0.1%	0.1%	0.1%
Temperature Drift	0.01%F.S./°C	0.01%F.S./°C	0.01%F.S./°C
Response Time (0~90%)	$\leq 1s$	$\leq 1s$	$\leq 1s$
Dielectric Strength	1500V AC;1min	1500V AC;1min	1500V AC;1min
Insulation Resistance	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC	$\geq 100M\Omega$ ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	2-or 3-wire Potentiometer	2-or 3-wire Potentiometer	2-or 3-wire Potentiometer

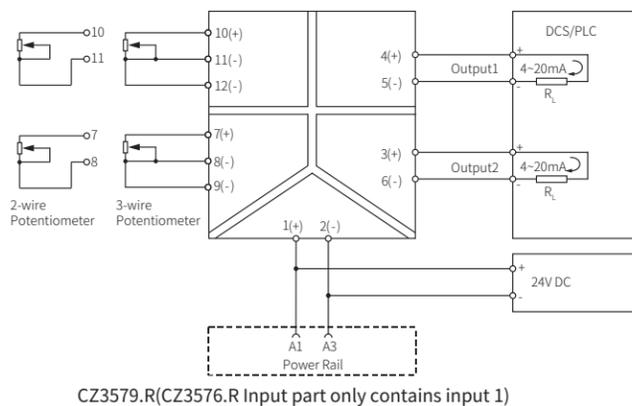
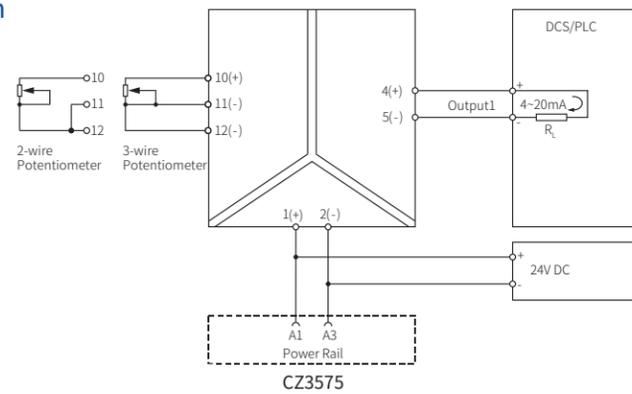
## Dimensions



- Note:
- For 3-wire Input, keep the resistance of the three wires as equal as possible.
  - For 2-wire Input, terminal 11, 12(CZ3575) should be shorted.



## Connection



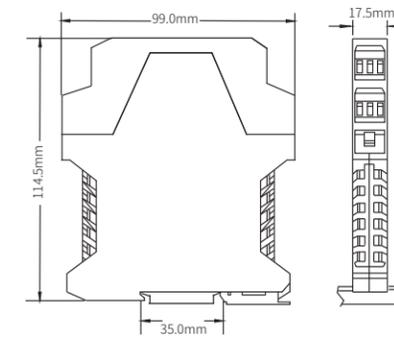
## Features

- Used to deliver the power supply voltage to the DIN rail
- Designed for application requiring redundant power
- Supply rating 4 A or 8A, external fuse

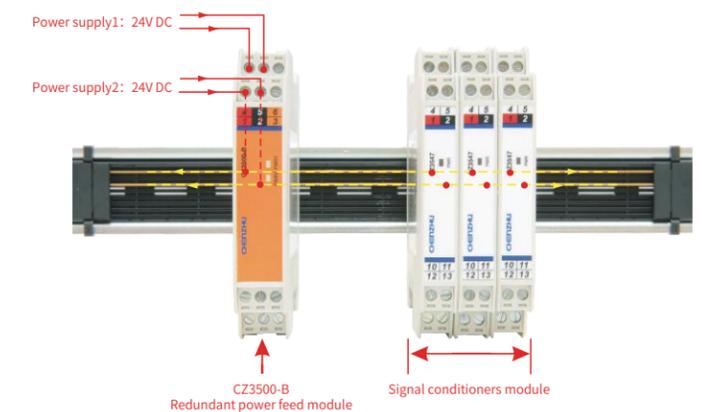
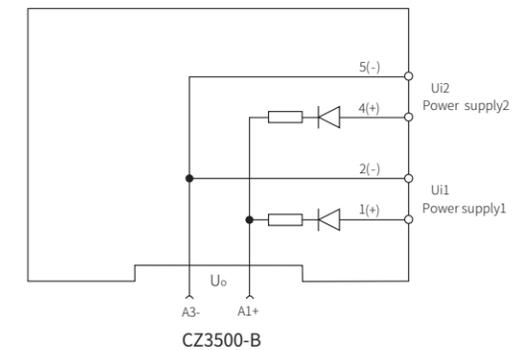
	CZ3500-B
<b>Input</b>	
Rated Voltage (Ui)	21.5~35V DC
Power Dissipation	$\leq 0.2W$
Voltage Drop	$\leq 1.5V$
<b>Output</b>	
Output Voltage	$U_o=U_i-1.5V$
Output Current	Built-in 5A fuse: $\leq 4A$ Built-in 10A fuse: $\leq 8A$
Output to	Bus base
<b>Status Indication</b>	
Green LED	LED on: power supply is normal LED off: power supply failure
<b>General Parameters</b>	
Power Reverse Protection	Support
Isolation	Input and Output are not isolated
Ambient Temperature	-20°C~+60°C
Storage Temperature	-40°C~+80°C
Relative Humidity	10%~90%RH

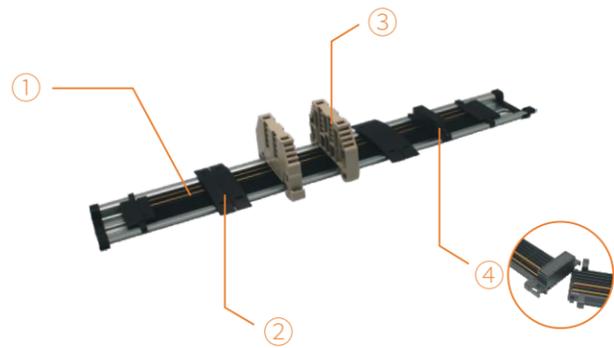


## Dimensions



## Connection





- Componet:
- ① Bus base (including rail)
  - ② Bus cover
  - ③ End bracket
  - ④ Expansion connector

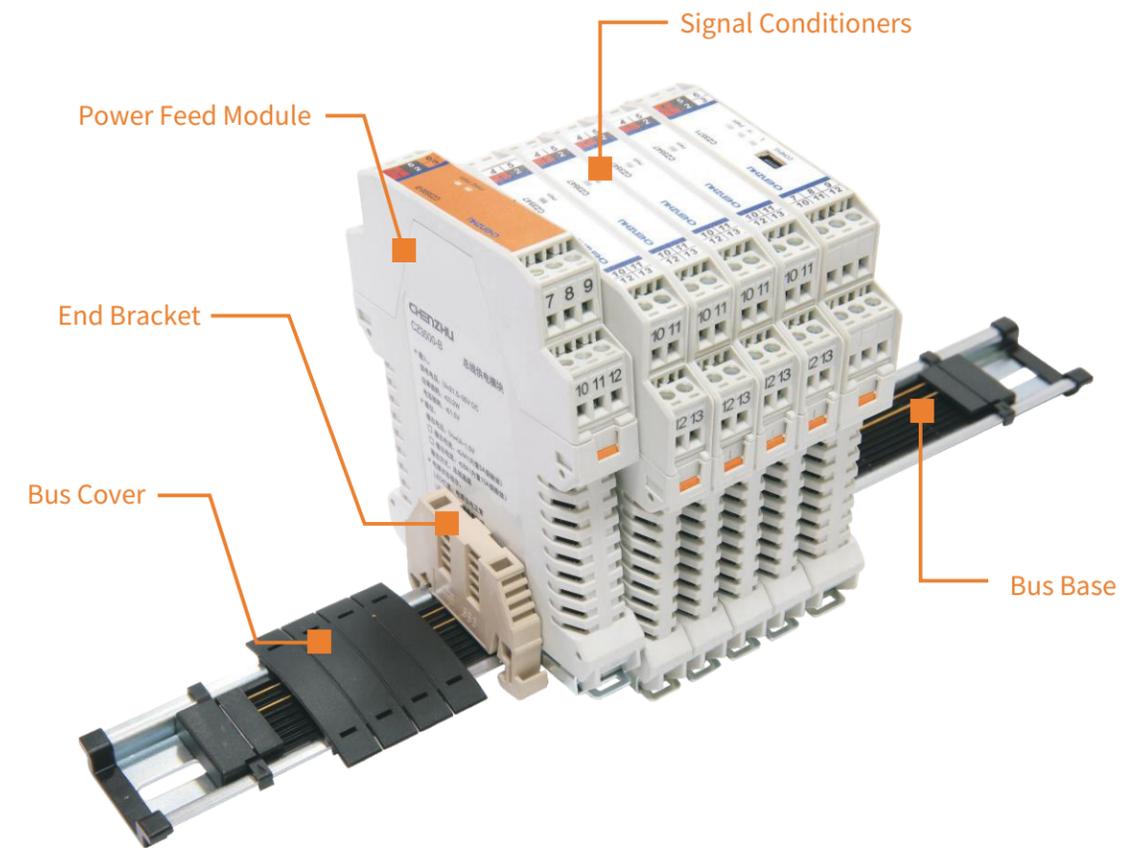
Bus base (including rail)	Dimensions	Description												
		<table border="1"> <tr> <td>Module no.</td> <td>CZBR-300</td> <td>CZBR-700</td> </tr> <tr> <td>Rail length</td> <td>300mm</td> <td>700mm</td> </tr> <tr> <td>Installation length</td> <td>221mm</td> <td>631mm</td> </tr> <tr> <td>Number of rail slots</td> <td>2</td> <td>2</td> </tr> </table>	Module no.	CZBR-300	CZBR-700	Rail length	300mm	700mm	Installation length	221mm	631mm	Number of rail slots	2	2
Module no.	CZBR-300	CZBR-700												
Rail length	300mm	700mm												
Installation length	221mm	631mm												
Number of rail slots	2	2												

Bus cover	Dimensions	Description				
		<table border="1"> <tr> <td>Module no.</td> <td>CZBR-C</td> </tr> <tr> <td>Function</td> <td>Protect the exposed bus, can be split as needed</td> </tr> </table>	Module no.	CZBR-C	Function	Protect the exposed bus, can be split as needed
Module no.	CZBR-C					
Function	Protect the exposed bus, can be split as needed					

End bracket	Dimensions	Description				
		<table border="1"> <tr> <td>Module no.</td> <td>CZBR-E</td> </tr> <tr> <td>Function</td> <td>One set of two as standard, used to fix the module to prevent loosening</td> </tr> </table>	Module no.	CZBR-E	Function	One set of two as standard, used to fix the module to prevent loosening
Module no.	CZBR-E					
Function	One set of two as standard, used to fix the module to prevent loosening					

Expansion connector	Dimensions	Description				
		<table border="1"> <tr> <td>Module no.</td> <td>CZBR-B</td> </tr> <tr> <td>Function</td> <td>Connect the bus bases for extending</td> </tr> </table>	Module no.	CZBR-B	Function	Connect the bus bases for extending
Module no.	CZBR-B					
Function	Connect the bus bases for extending					

Bus Power Supply Structure



Module and Bus Base Connection

