



**CATALOGUE**

Signal Conditioners



## 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.



**Experience**

**23+**  
Years



**Foundation**

**2002**  
Since



**Sales volume**

**4,000,000**  
Pcs



**Applications**

**4000+**  
Projects

## 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

**12%**

of Sale Revenue



Innovation

**110+**

Patents



Testing Facility

**70+**

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

**2500m<sup>2</sup>**

In total



Max Cap.

**1,000,000pcs**

Year



Lean Production

**10+**

Years' experience



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Potentiometer Input	23
Pulse Input	24
Frequency Converter	25
Vibration Transducer Input	26
Voltage Input	27
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### CZ3500 Range

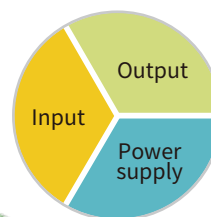
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## CZ2000 Range

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.



### Strong EMC Performance

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

### Easy Installation and Disassemble

Use standard 35mm rails, which are commonly used in industrial control cabinets.

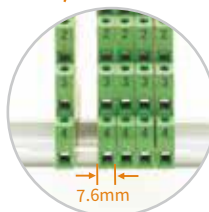


### High Conversion Accuracy

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

### Save Installation Space

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



# Selection Guide

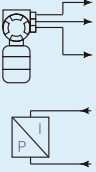
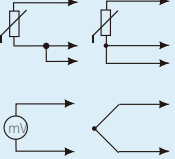
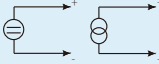
Field Instrument	Application	Module No.	Channels	Input	Output	Features	Page
	Analog Input	CZ2031	1/1	4~20mA (HART)	4~20mA (HART)	Loop powered	6
	Analog Output	CZ2047	1/1	0/4~20mA	0/4~20mA 0/1~5V	Independent powered	7
		CZ2067	1/1				
	Temperature Converters	CZ2071	1/1	RTD	0~20mA, 4~20mA 0~5V, 1~5V	Independent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

Table 1 Input Signal Type and Range

	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	$U_o \geq U_e - R_L \times 0.02-6$
Loop Current	$\leq 25\text{mA}$

### Output

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

### General Parameters

Loop Supply Voltage( $U_e$ )	20~30V DC
Power Reverse Protection	Support
Transmission Accuracy	0.4%F.S.
Temperature Drift	0.01%F.S./°C
Response Time (0~90%)	$\leq 0.5\text{ ms}$
Dielectric Strength	1500V AC;1min
Insulation Resistance	$\geq 100\text{M}\Omega$ ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20°C~+60°C
Suitable Field Apparatus	2-wire transmitter

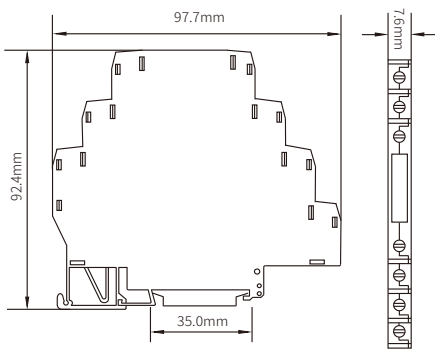
## CZ2031 Application 1: Analog Input

Input Current	4~20mA(HART)
Distribution Voltage	$U_o \geq U_e - R_L \times 0.02-6$
Loop Current	$\leq 25\text{mA}$
Output Current	4~20mA(HART)
Load Resistance	$R_L \geq 250\Omega(\text{HART})$
Loop Current	$\leq 25\text{mA}$
Loop Supply Voltage( $U_e$ )	20~30V DC
Power Reverse Protection	Support
Transmission Accuracy	0.4%F.S.
Temperature Drift	0.01%F.S./°C
Response Time (0~90%)	$\leq 0.5\text{ ms}$
Dielectric Strength	1500V AC;1min
Insulation Resistance	$\geq 100\text{M}\Omega$ ; 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

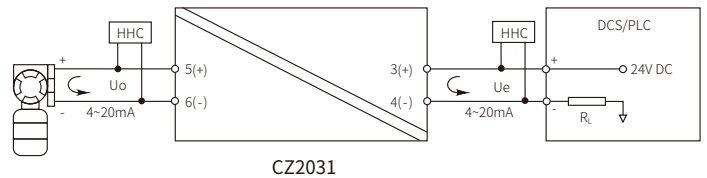
Input Current	4~20mA(HART)
Distribution Voltage	$U_o \geq U_e - R_L \times 0.02-6$
Loop Current	$\leq 25\text{mA}$
Output Current	4~20mA(HART)
Load Resistance	$R_L \leq (U_e - 6) / 0.02$
Loop Current	$\leq 25\text{mA}$
Loop Supply Voltage( $U_e$ )	20~30V DC
Power Reverse Protection	Support
Transmission Accuracy	0.3%F.S.
Temperature Drift	0.01%F.S./°C
Response Time (0~90%)	$\leq 0.5\text{ ms}$
Dielectric Strength	1500V AC;1min
Insulation Resistance	$\geq 100\text{M}\Omega$ ; 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

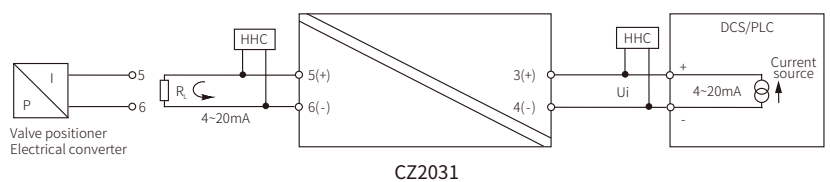


## Connection

### 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

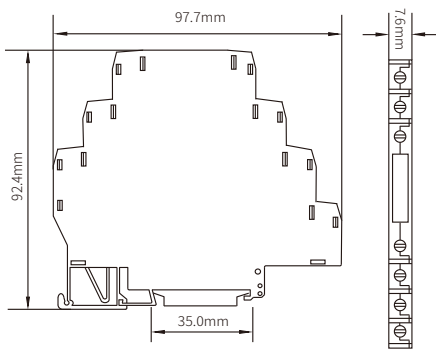
# Analog Input / Analog Output

## Features

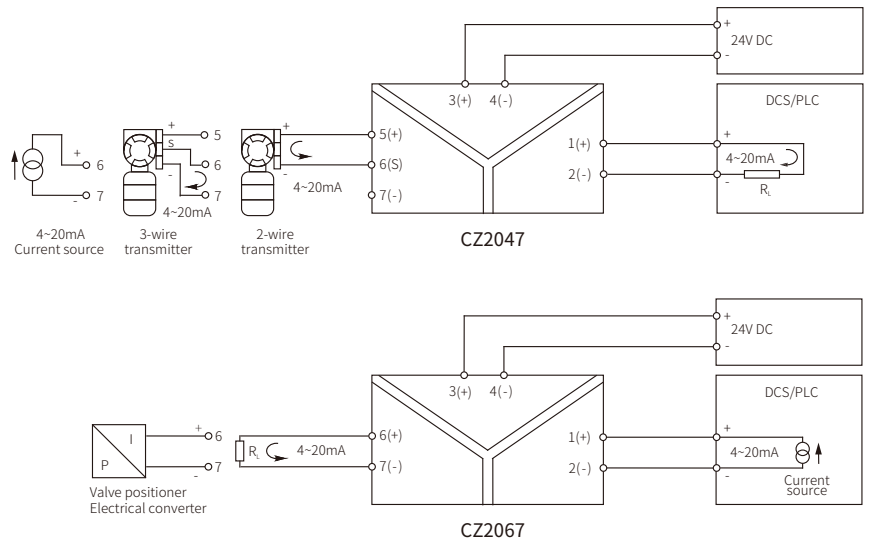
- 1-channel signal conditioner
- 24V DC supply
- 0/4~20mA current input/output
- Ultra-slim housing width 7.6mm

	CZ2047 Analog Input	CZ2067 Analog Output
<b>Input</b>		
Input Current	0/4~20mA	0/4~20mA
Distribution Voltage	≥19V	
Input Voltage Drop		≤2V
Max. Input Current	<35mA	<35mA
<b>Output</b>		
Output Current/Load Resistance	0(4)~20mA / $R_L \leq 550\Omega$	0(4)~20mA / $R_L \leq 680\Omega$
Max. Output Current	<35mA	<35mA
Output Voltage/Load Resistance	0(1)~5V / $R_L \geq 330k\Omega$	0(1)~5V / $R_L \geq 300k\Omega$
<b>General Parameters</b>		
Supply Voltage	20~30V DC	20~30V DC
Power Reverse Protection	Support	Support
Current Consumption(Supply voltage:24V)	≤60mA	≤50mA
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	≤3ms
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





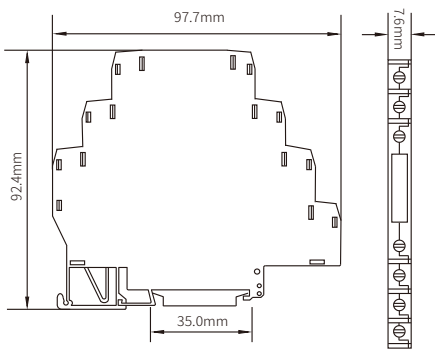
## Features

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

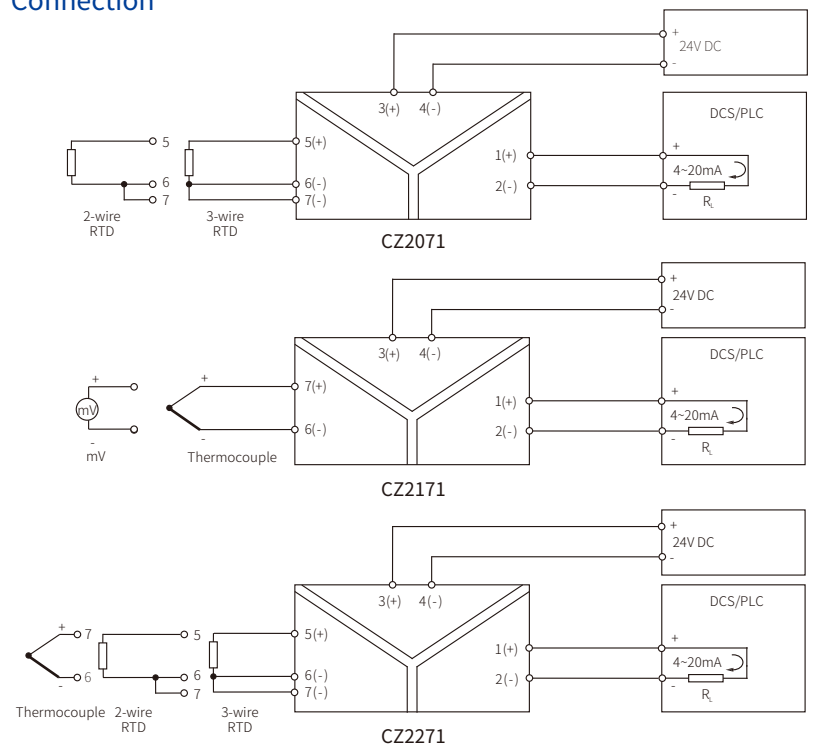
	CZ2071 RTD Input	CZ2171 TC Input	CZ2271 RTD/TC Input
<b>Input</b>			
Input Signal	Pt100, Cu100, Cu50	T、E、J、K、N、R、S、B (Customized mV signal)	Pt100, Cu100, Cu50 T、E、J、K、N、R、S、B
Internal CJC Temperature Range		-20°C~+60°C	-20°C~+60°C
CJC Precision		±1°C	±1°C
<b>Output</b>			
Output Current/Load Resistance	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)	$\leq 35mA$	$\leq 35mA$	$\leq 35mA$
Conversion Accuracy	See P5 Table 1	See P5 Table 1	See P5 Table 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 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



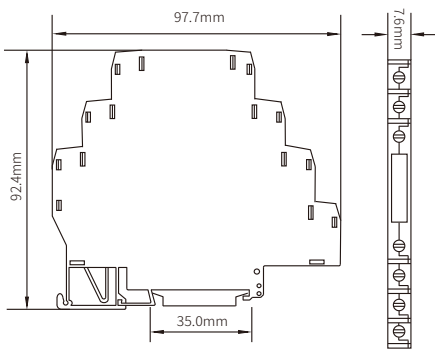
# RTD / TC Input (Loop Powered)

## Features

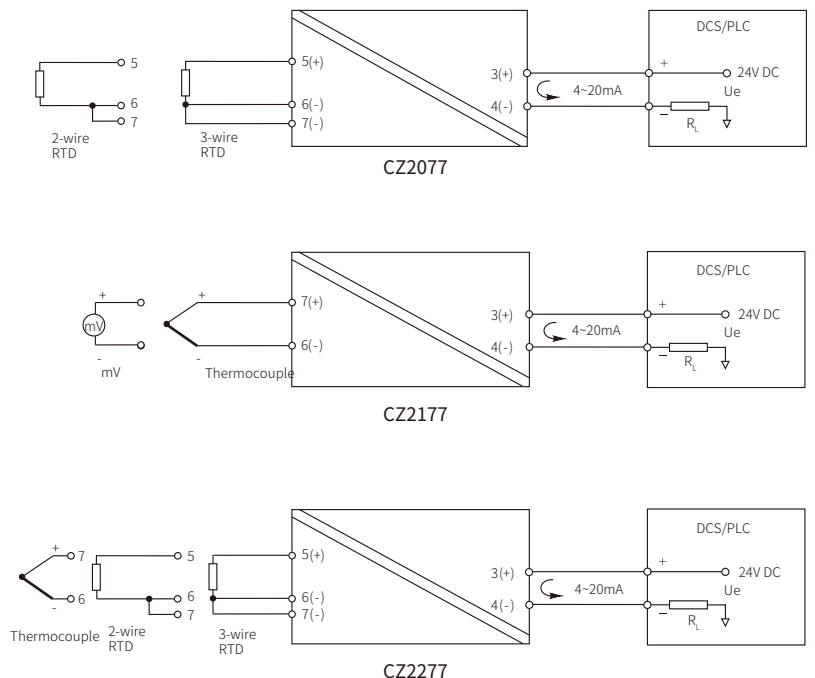
- 1-channel signal conditioner
- 24V DC loop powered
- Line fault detection(LFD)
- Configurable by software
- Ultra-slim housing width 7.6mm

	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	$I_H \approx 20.8\text{mA}/I_L \approx 3.8\text{mA}$	$I_H \approx 20.8\text{mA}/I_L \approx 3.8\text{mA}$	$I_H \approx 20.8\text{mA}/I_L \approx 3.8\text{mA}$
Fault Current of Line Break	$I \approx 20.8\text{mA}$	$I \approx 20.8\text{mA}$	$I \approx 20.8\text{mA}$
<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	See P5 Table 1	See P5 Table 1	See P5 Table 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 sensor	TC sensor, mV signal	RTD, TC sensor

## Dimensions



## Connection



## Features

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

## Input

Configuration  
Input Signal

## Output

Configuration  
Output Signal

## General Parameters

Supply Voltage  
Power Reverse Protection  
Current Consumption(Supply voltage:24V)  
Transmission Accuracy  
Temperature Drift  
Response Time (0~90%)  
Dielectric Strength  
Insulation Resistance  
EMC Standards  
Ambient Temperature  
Suitable Field Apparatus

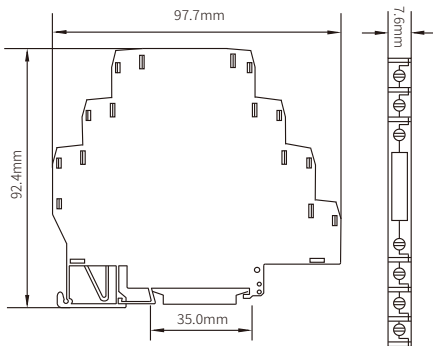
## CZ2083

Not support  
0~20mA, 4~20mA  
0~5V, 1~5V, 0~10V, 2~10V  
  
Not support  
0~20mA, 4~20mA  
0~5V, 1~5V, 0~10V, 2~10V  
  
20~35V DC  
Support  
≤45mA  
0.1%F.S.  
0.01%F.S./°C  
≤0.1s  
1500V AC;1min  
≥100MΩ  
GB/T 18268(IEC 61326-1)  
-20°C~+60°C  
current source , voltage source

## CZ2083.A DIP configurable

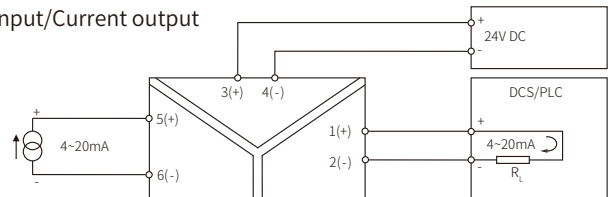
Via DIP switches  
0~20mA, 4~20mA  
0~5V, 1~5V, 0~10V, 2~10V  
  
Via DIP switches  
0~20mA, 4~20mA  
0~5V, 1~5V, 0~10V, 2~10V  
  
20~35V DC  
Support  
≤45mA  
0.1%F.S.  
0.01%F.S./°C  
≤0.1s  
1500V AC;1min  
≥100MΩ  
GB/T 18268(IEC 61326-1)  
-20°C~+60°C  
current source , voltage source

## Dimensions

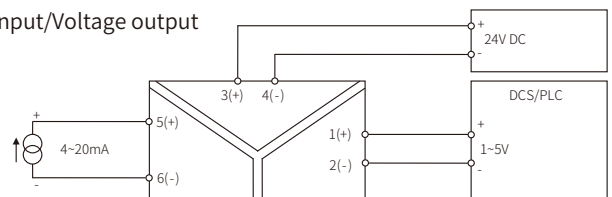


## Connection

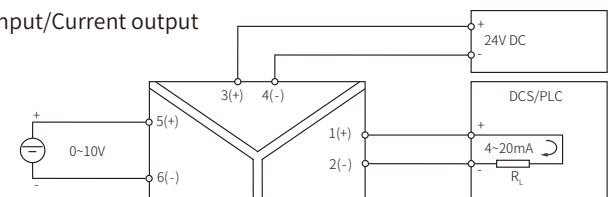
### Application 1: Current input/Current output



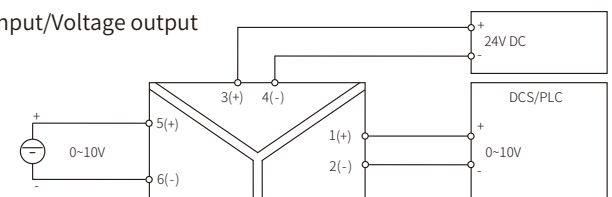
### Application 2: Current input/Voltage output



### 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 Configurable via DIP switches	14
		CZ3012.S	2/2	Proximity switch input			
	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 0/1~5V	Independent powered Current/voltage source output	16
		CZ3035	1/2				
		CZ3036	2/2	0/4~20mA	Independent powered Sink mode output	17	
		CZ3047T	1/1				
		CZ3035T	1/2	4~20mA	4~20mA	Loop powered	18
		CZ3036T	2/2				
		CZ3065T	1/1				
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 0~5V, 1~5V	Independent powered Configurable via software	20
		CZ3076	1/2				
		CZ3079	2/2				
		CZ3072	1/1	TC mV			21
		CZ3074	1/2				
		CZ3079.TC	2/2	RTD	4~20mA	Loop powered Configurable via software	22
		CZ3077	1/1				
		CZ3078	2/2	TC mV			
		CZ3177	1/1				
		CZ3178	2/2	RTD, TC			
		CZ3277	1/1				
		CZ3278	2/2	0~5kΩ	0~20mA, 4~20mA	Independent powered	23
		CZ3075	1/1				
		CZ3076.R	1/2	0~10kΩ	0~5V, 1~5V	Configurable via software	
CZ3079.R	2/2						
	Pulse Input	CZ3051	1/1	Voltage pulse 0~10kHz	Voltage pulse, transistor 0~10kHz	Independent powered	24
		CZ3052	2/2				
		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
		CZ3355	1/3				

# Selection Guide


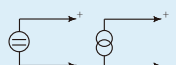

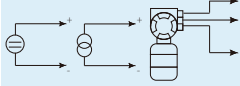
Field Instrument	Application	Module No.	Channels	Input	Output	Features	Page
	Vibration Transducer Input	CZ3058	1/1	Vibration transducer -10V~10V	-10V~10V	Independent powered	26
	Voltage Input	CZ3083 CZ3088 CZ3089	1/1 2/2 1/2	0~5V, 1~5V 0~10V	0~20mA, 4~20mA 0~5V, 1~5V 0~10V	Independent powered	27
	Communication 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%
RTD	Pt100	-200°C~+850°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				0~5kΩ 0.1%
				0~10kΩ 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 CJC. For every 100Ω increase in the compensation wire, the cold junction error increases by 0.2°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.
5. mV signal input needs to be customized.

## Configuration Accessory

Configuration Tool: USBCOM-MINI



Software: Easyconfig



## 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.8V

Approx.8mA

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

250V AC,2A or 30V DC,2A

Resistive load

Resistive load

≤ 10ms

Via switch K1

Via switch K1、K3

Via switch K2

Via switch K2、K4

20~35V DC

20~35V DC

Support

Support

≤ 30mA

1500V AC;1min

1500V AC;1min

≥ 100MΩ; 500V DC

≥ 100MΩ; 500V DC

GB/T 18268(IEC 61326-1)

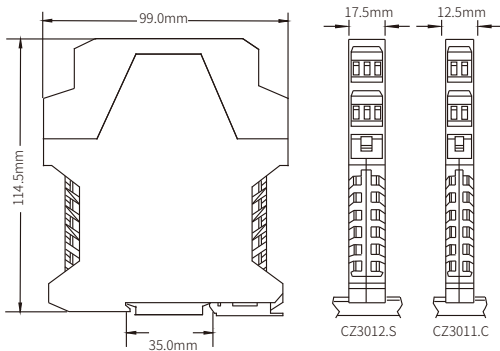
GB/T 18268(IEC 61326-1)

-20°C~+60°C

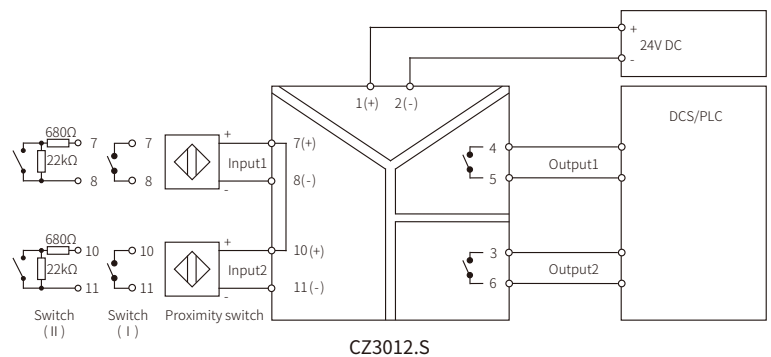
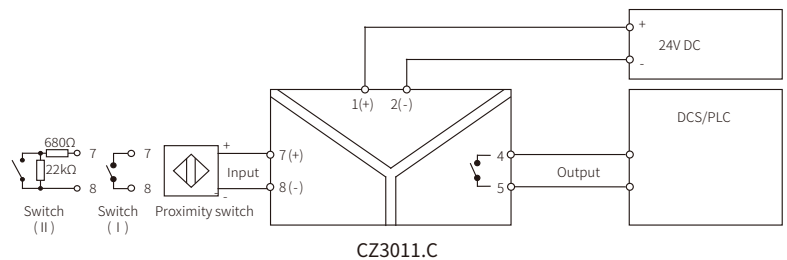
-20°C~+60°C

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

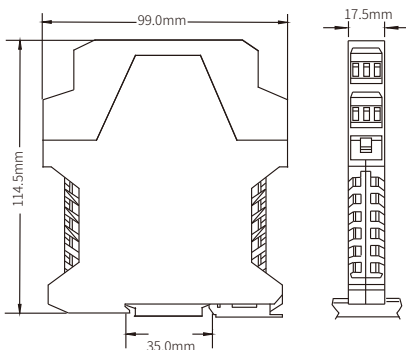
24V DC Loop powered  
 Suitable for analog input and analog output  
 Support HART communication

1/1: CZ3031  
 2/2: CZ3032  
 Application 1: Analog Input

1/1: CZ3031  
 2/2: CZ3032  
 Application 2: Analog Output

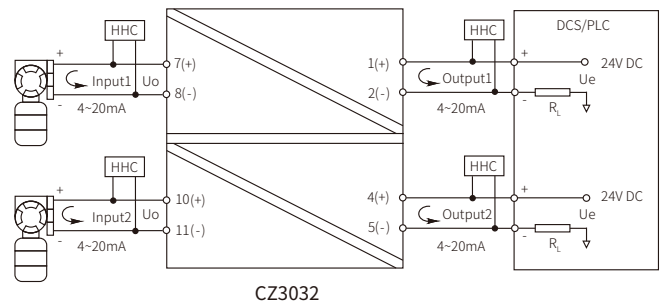
Input	1/1: CZ3031 2/2: CZ3032	1/1: CZ3031 2/2: CZ3032
Input Current	4~20mA(HART)	4~20mA(HART)
Voltage Drop	$U_d \leq 6V$	$U_d \leq 6V$
Distribution Voltage	$U_o \geq U_c - R_L \times 0.02 - 6$	
Output		
Output Current	4~20mA(HART)	4~20mA(HART)
Load Resistance	$R_L \geq 250\Omega$ (HART)	$R_L \leq (U_i - 6)/0.02$
General Parameters		
Loop Supply Voltage( $U_o$ )	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

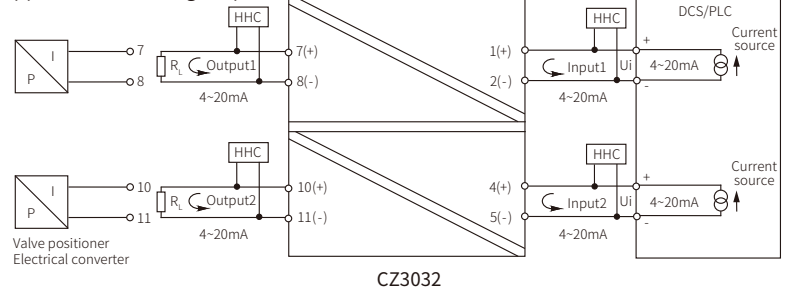


## Connection

### Application 1: Analog input



### Application 2: Analog output



Note:

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



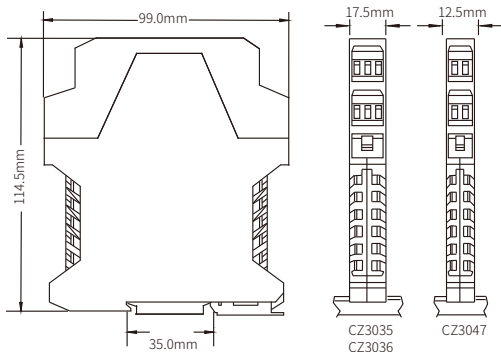
# Analog Input(Current Source Output)

## Features

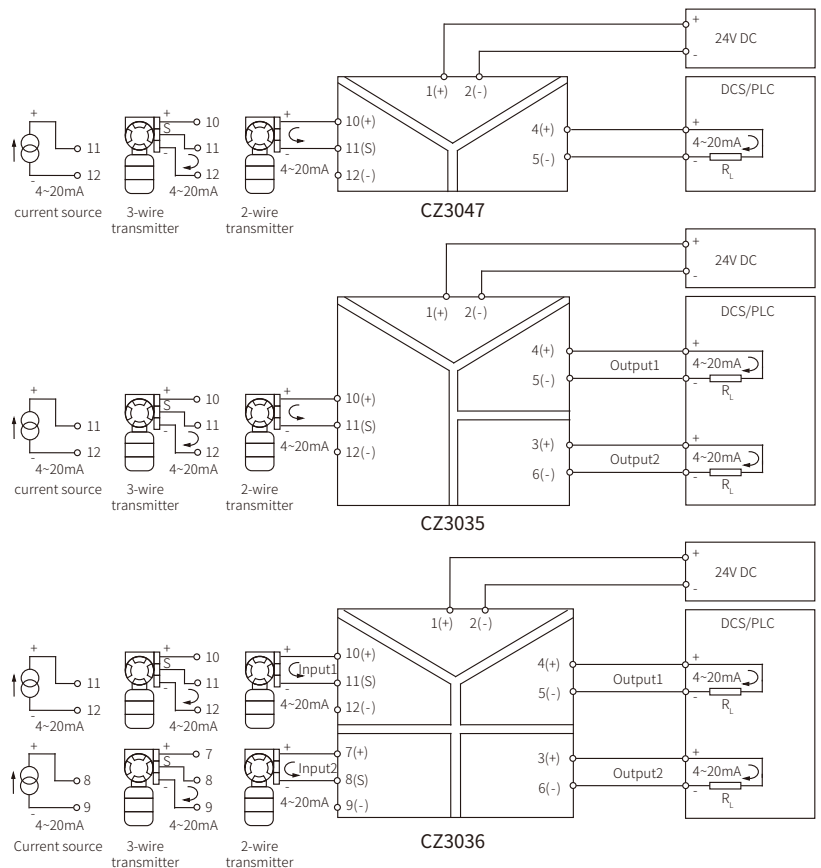
24V DC independent power supply  
 0/4~20mA current input  
 0/4~20mA current source output

	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



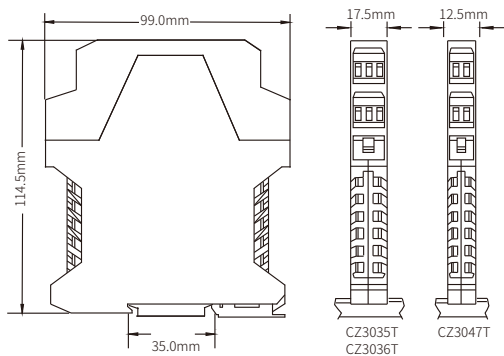
# Analog Input(Sink Mode Output)

## Features

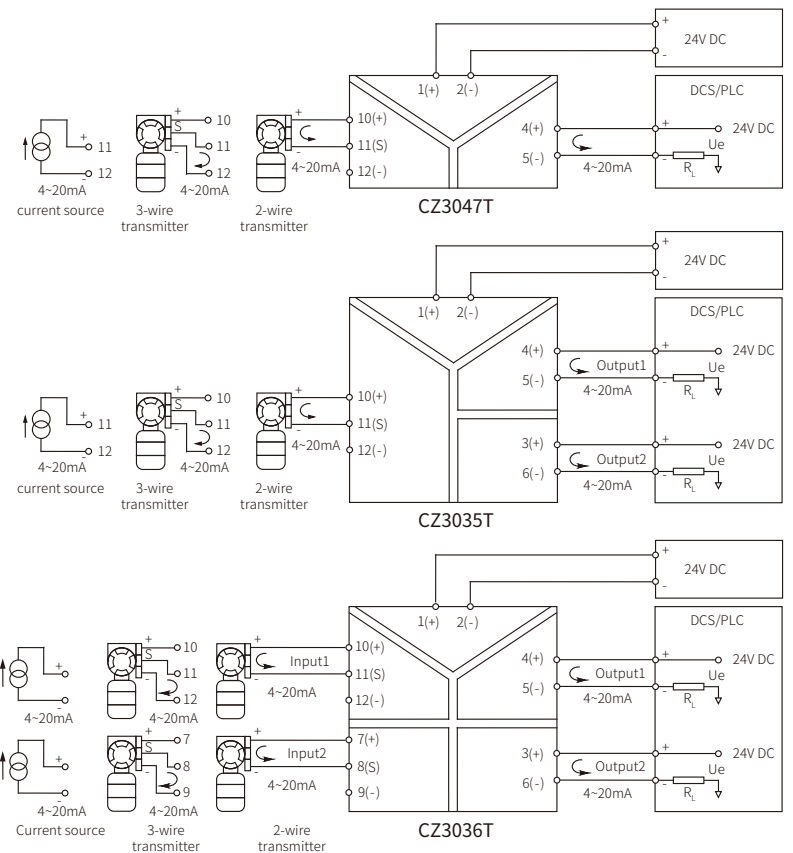
- 24V DC independent power supply
- 0/4~20mA current input
- 0/4~20mA sink mode output

	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

## Input

Input Current

Input Impedance

## Output

Output Current

Voltage Drop

Load Resistance

## General Parameters

Loop Supply Voltage( $U_e$ )

Power Reverse Protection

Transmission Accuracy

Temperature Drift

Response Time (0~90%)

Dielectric Strength

Insulation Resistance

EMC Standards

Ambient Temperature

Suitable Field Apparatus

CZ3065T  
1/1

4~20mA

$\leq 100\Omega$

4~20mA

$\leq 14V$

$R_L \leq (U_e - 14)/0.02$

20~30V DC

Support

0.2%F.S.

0.01%F.S./ $^{\circ}C$

$\leq 0.5$  ms

1500V AC;1min

$\geq 100M\Omega$ ; 500V DC

GB/T 18268(IEC 61326-1)

-20 $^{\circ}C$ ~+60 $^{\circ}C$

current source

CZ3066T  
2/2

4~20mA

$\leq 100\Omega$

4~20mA

$\leq 14V$

$R_L \leq (U_e - 14)/0.02$

20~30V DC

Support

0.2%F.S.

0.01%F.S./ $^{\circ}C$

$\leq 0.5$  ms

1500V AC;1min

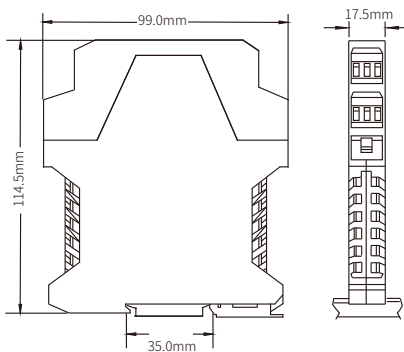
$\geq 100M\Omega$ ; 500V DC

GB/T 18268(IEC 61326-1)

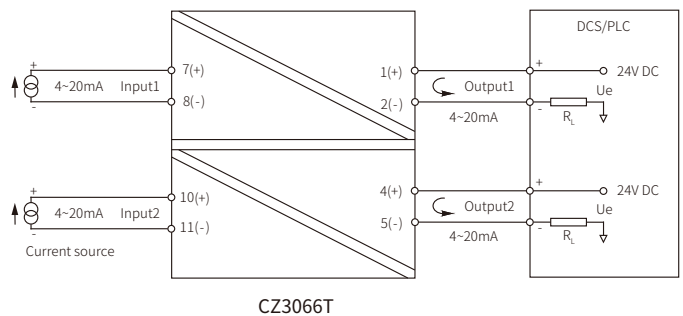
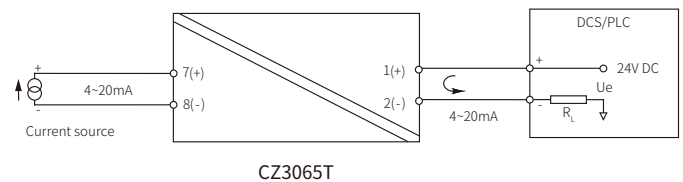
-20 $^{\circ}C$ ~+60 $^{\circ}C$

current source

## Dimensions



## Connection



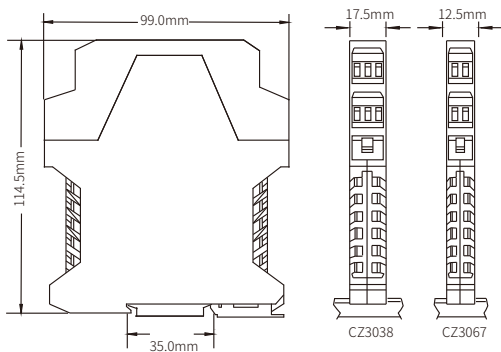
# Analog Output

## Features

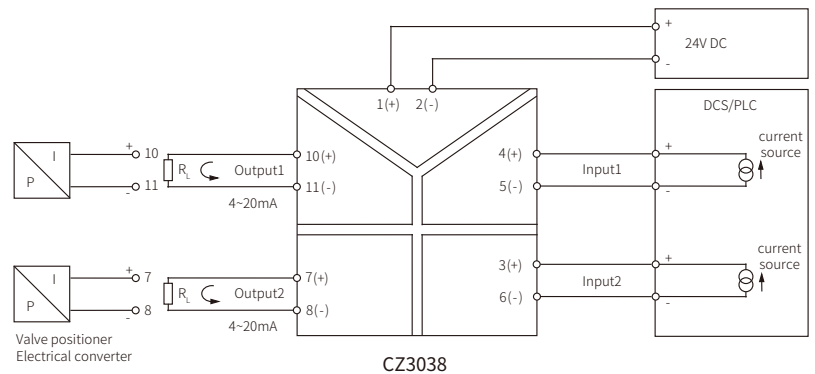
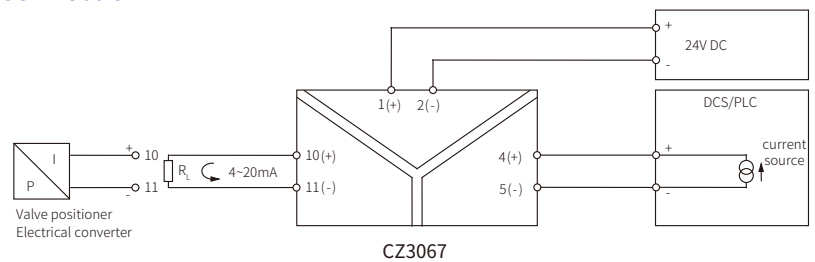
24V DC independent power supply  
 0/4~20mA current input/output  
 Output load up to 800Ω

	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



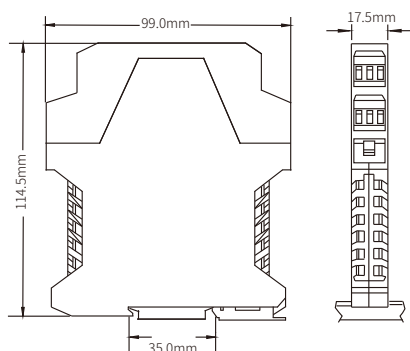
## Features

- 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, Cu100, Cu50	Pt100, Cu100, Cu50	Pt100, 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	$I_H \approx 20.8mA / I_L \approx 3.8mA$	$I_H \approx 20.8mA / I_L \approx 3.8mA$	$I_H \approx 20.8mA / I_L \approx 3.8mA$
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)	$\leq 35mA$	$\leq 55mA$	$\leq 55mA$
Conversion Accuracy	See P13 Table 2	See P13 Table 2	See P13 Table 2
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 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 $^{\circ}C$ ~+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

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

## Dimensions

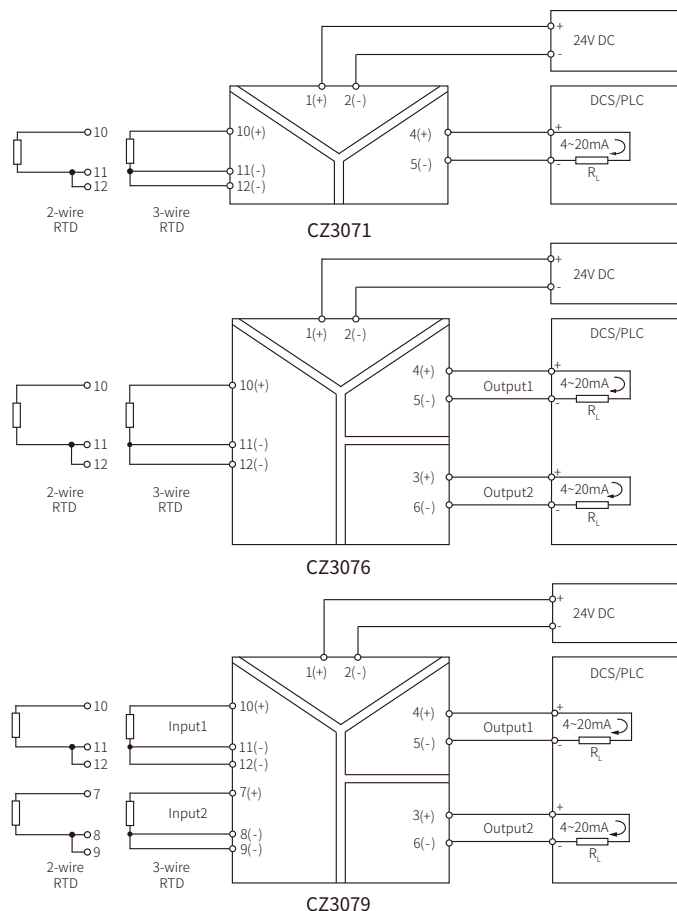


Note:

- For 3-wire Input, keep the resistance of the three wires as equal as possible.
- For 2-wire Input, terminal 11, 12(CZ3071/C3076), terminal 11, 12 and 8, 9(CZ3079) should be shorted.



## Connection



# TC Input

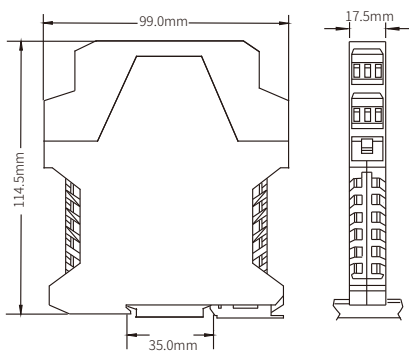
## Features

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

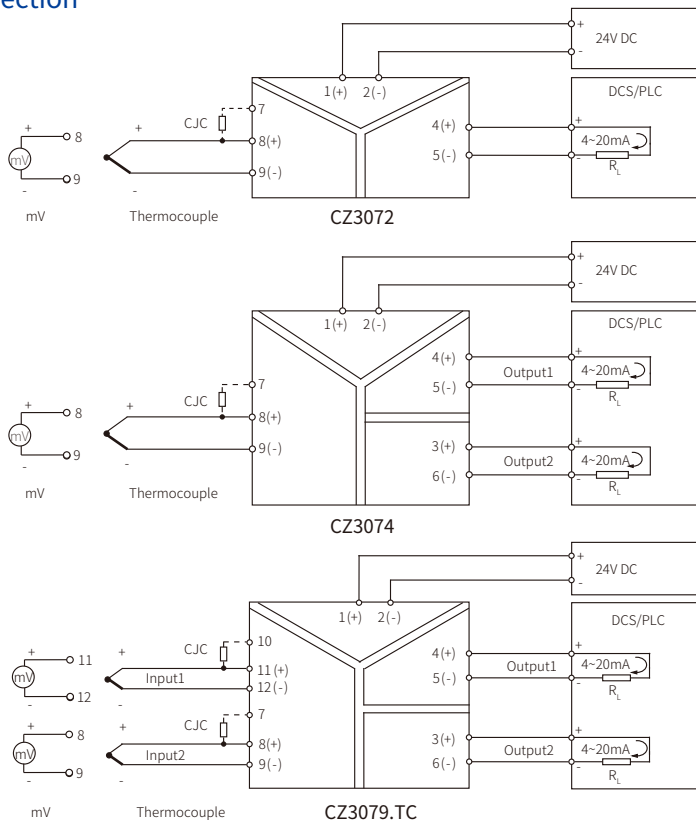
	CZ3072 1/1	CZ3074 1/2	CZ3079.TC 2/2
<b>Input</b>			
Input Signal(Customized mV signal)	T, E, J, K, N, R, S, B	T, E, J, K, N, R, S, B	T, E, J, K, N, R, S, B
Internal CJC Temperature Range	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
CJC Precision	±1°C	±1°C	±1°C
<b>Output</b>			
Output Current/Load Resistance	0~20mA, 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)	$\leq 35mA$	$\leq 55mA$	$\leq 55mA$
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

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

## Dimensions



## Connection



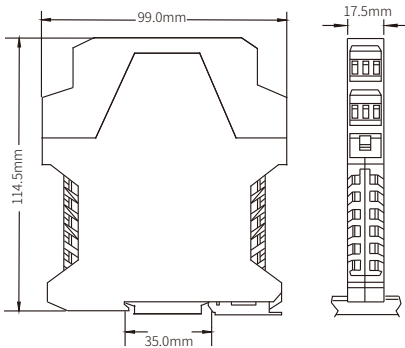
## Features

- 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%)	≤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	TC sensor, mV signal	RTD, TC sensor

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

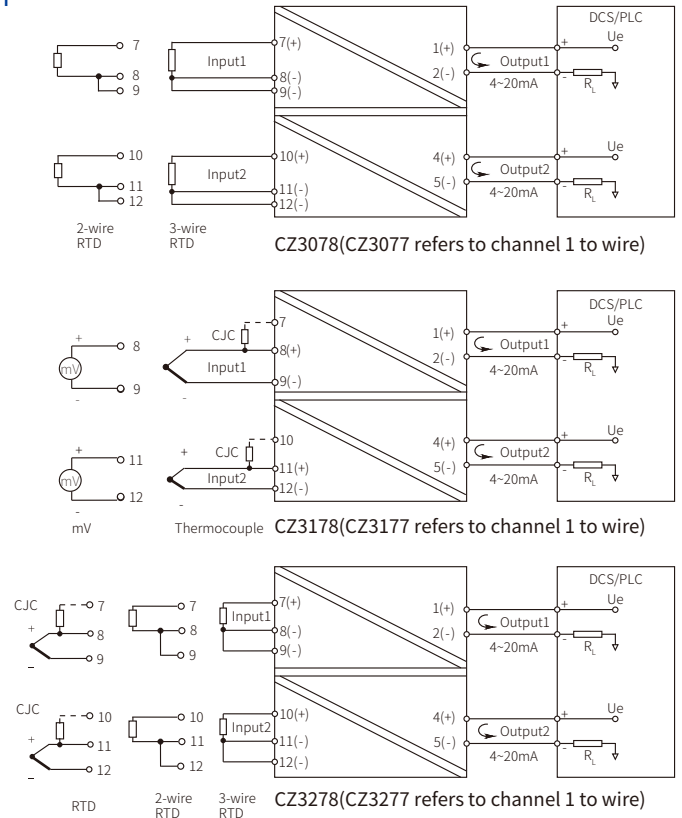
## Dimensions



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



## Connection



# Potentiometer Input

## Features

24V DC independent power supply

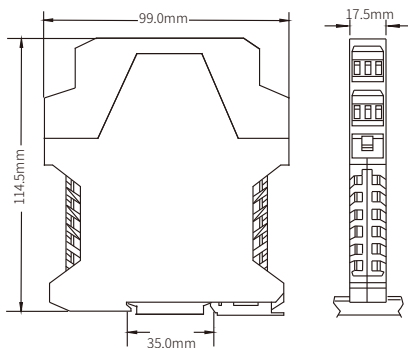
Line fault detection(LFD)

Configurable by software

	CZ3075 1/1	CZ3076.R 1/2	CZ3079.R 2/2
<b>Input</b>			
Input Signal	0~5kΩ, 0~10kΩ	0~5kΩ, 0~10kΩ	0~5kΩ, 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)	$\leq 40mA$	$\leq 55mA$	$\leq 55mA$
Conversion Accuracy	5Ω/0.1%(Take the larger value)	5Ω/0.1%(Take the larger value)	5Ω/0.1%(Take the larger value)
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

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

## Dimensions

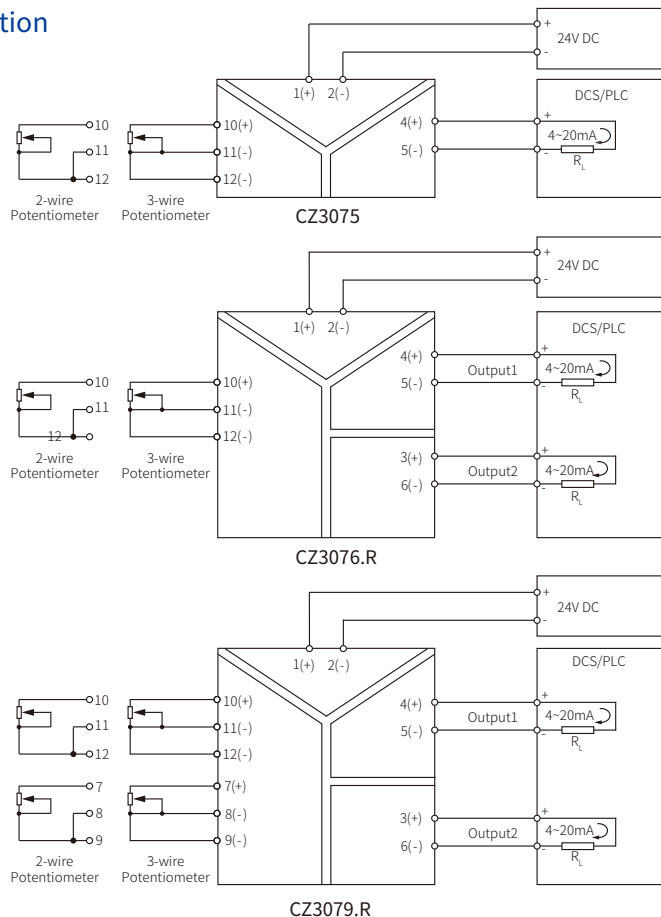


Note:

1. For 3-wire Input, keep the resistance of the three wires as equal as possible.
2. For 2-wire Input, terminal 11, 12(CZ3075/C3076.R) and 8, 9(CZ3079.R) should be shorted.



## Connection





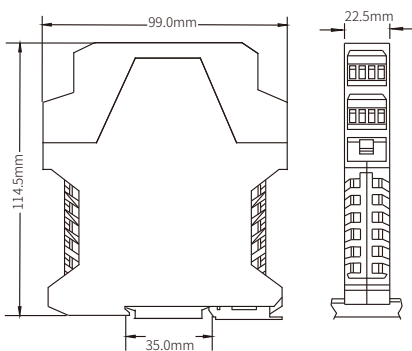
## Features

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

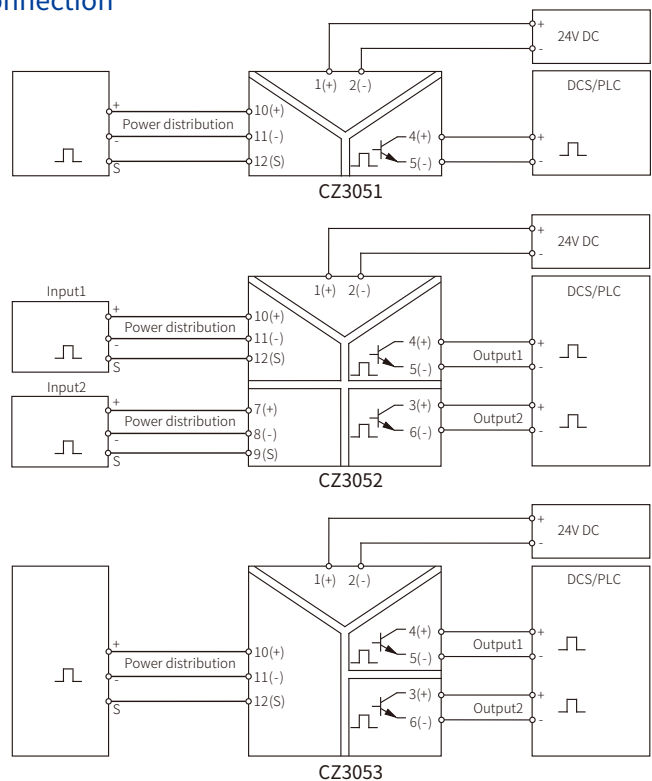
	CZ3051 1/1	CZ3052 2/2	CZ3053 1/2
<b>Input</b>			
Frequency Range	≤10kHz, Duty cycle≥30%	≤10kHz, Duty cycle≥30%	≤10kHz, Duty cycle≥30%
Pulse Voltage Level	$4V \leq V_H \leq 12V, V_L \leq 1V$	$4V \leq V_H \leq 12V, V_L \leq 1V$	$4V \leq V_H \leq 12V, V_L \leq 1V$
Distribution Voltage(Specify when ordering)	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)	≤35V DC	≤35V DC	≤35V DC
Max.on-stage Current(Transistor output)	≤35mA	≤35mA	≤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)	≤30mA	≤55mA	≤50mA
Dielectric Strength	1500V AC;1min	1500V AC;1min	1500V AC;1min
Insulation Resistance	≥100MΩ	≥100MΩ	≥100MΩ
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(CZ3055) or membrane keypad(CZ3355)
- LED display(CZ3355)

### Input

- PNP / NPN Transistor
- Voltage Pulse Source
- Switch/Proximity Switch
- Frequency Range / Pulse Width

### Output

- Output Current/Load Resistance
- Output Voltage/Load Resistance
- Relay Output
- Contact Rating
- Response Time @100kHz input(0~90%)

### General Parameters

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

**CZ3055**  
1/1

- Power distribution:14V, current<20mA
- Max. Input voltage:30V
- Power distribution≈8V, Short-circuit current≈8mA
- 0.1Hz~100kHz/≥2μs

- 0~20mA, 4~20mA /  $R_L \leq 400\Omega$
- 0~5V, 1~5V /  $R_L \geq 300k\Omega$
- 1\*SPST
- 250V AC,2A / 30V DC,2A; Resistive load
- ≤20ms

- 20~35V DC
- Support
- ≤90mA
- 0.1%F.S.(Typical≤0.05%F.S.)
- 0.01% F.S./°C
- 1500V AC;1min
- ≥100MΩ; 500V DC
- GB/T 18268(IEC 61326-1)
- 20°C~+60°C

**CZ3355**  
1/3

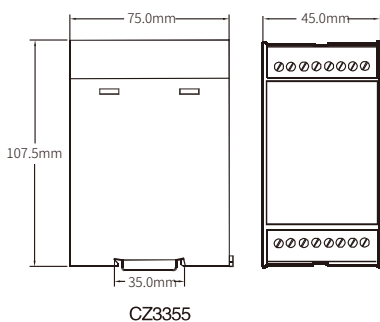
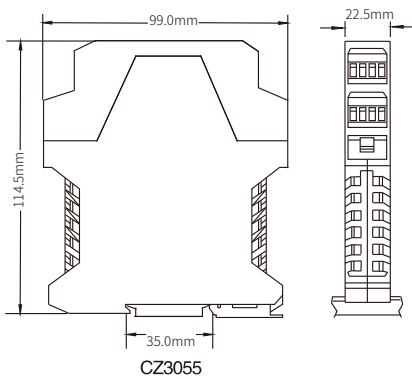
- Power distribution:14V, current<20mA
- Max. Input voltage:30V
- Power distribution≈8V, Short-circuit current≈8mA
- 0.1Hz~100kHz/≥2μs

- 0~20mA, 4~20mA /  $R_L \leq 400\Omega$
- 0~5V, 1~5V /  $R_L \geq 300k\Omega$
- 2\*SPST
- 250V AC,2A / 30V DC,2A; Resistive load
- ≤20ms

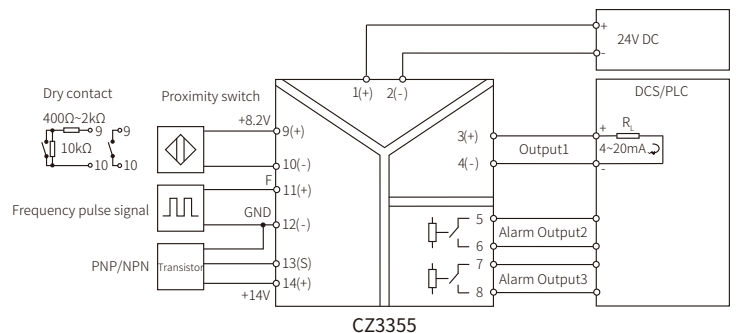
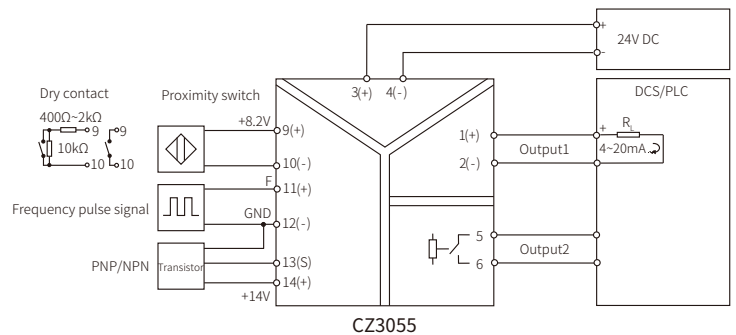
- 20~35V DC
- Support
- ≤110mA
- 0.1%F.S.(Typical≤0.05%F.S.)
- 0.01% F.S./°C
- 1500V AC;1min
- ≥100MΩ; 500V DC
- GB/T 18268(IEC 61326-1)
- 20°C~+60°C

NAMUR proximity switch, dry contact, frequency generator, PNP/NPN transistor outputs according to DIN 19234 standards

## Dimensions



## Connection



## Features

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

CZ3058  
 1/1

### Input

Input Voltage	-10V~+10V
Input Impedance	10k $\Omega$

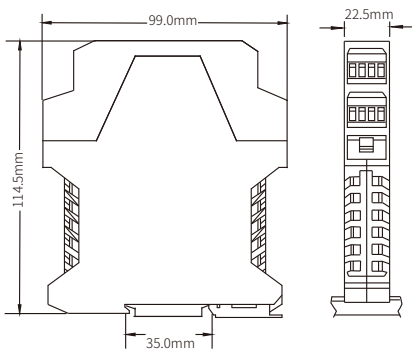
### Output

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

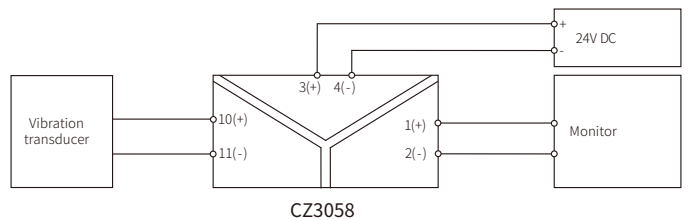
### General Parameters

Supply Voltage	20~35V DC
Power Reverse Protection	Support
Current Consumption(Supply voltage:24V)	$\leq 40mA$
DC Transmission Accuracy	$< \pm 0.2\%F.S.$
AC Transmission Accuracy	0Hz~600Hz: $\pm 0.2\%F.S.$ 600Hz~10kHz: $-1.5\% \sim +0.2\%F.S.$
Phase Response	$< 10\mu s$
Voltage Bandwidth(-3dB)	$\geq 40kHz$
Temperature Drift	100ppm/ $^{\circ}C$
Dielectric Strength	1500V AC;1min
Insulation Resistance	$\geq 100M\Omega$ ; 500V DC
EMC Standards	GB/T 18268(IEC 61326-1)
Ambient Temperature	-20 $^{\circ}C \sim +60^{\circ}C$
Suitable Field Apparatus	Vibration transducer

## Dimensions



## Connection



# Voltage Input

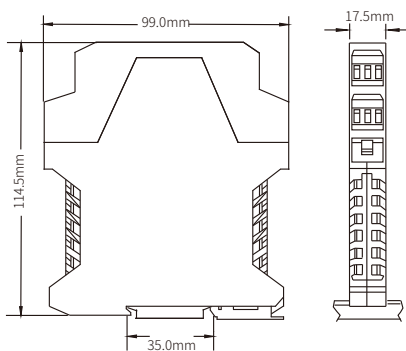
## Features

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

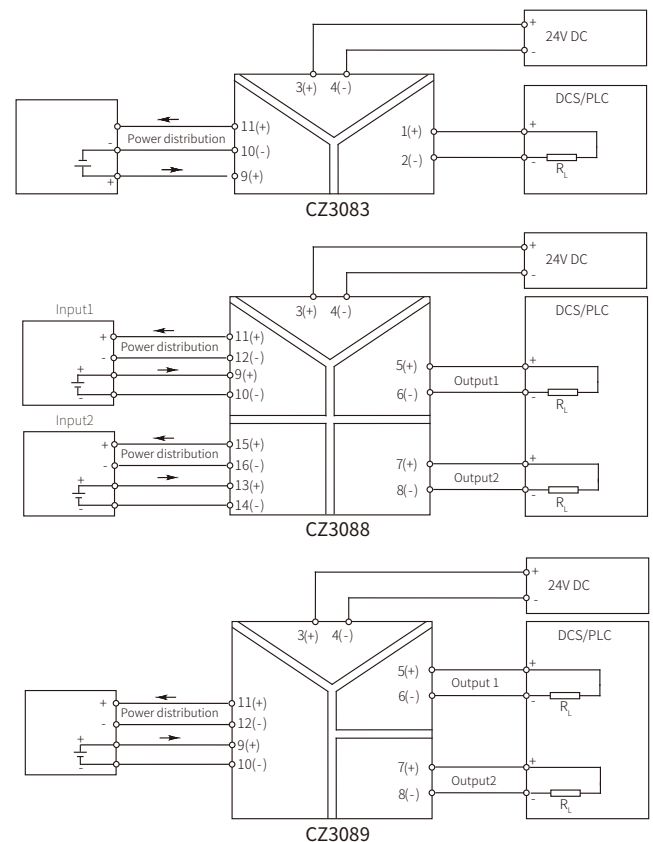
	CZ3083 1/1	CZ3088 2/2	CZ3089 1/2
<b>Input</b>			
Input Voltage	0~5V, 1~5V, 0~10V	0~5V, 1~5V, 0~10V	0~5V, 1~5V, 0~10V
Input Impedance	$\geq 100k\Omega$	$\geq 100k\Omega$	$\geq 100k\Omega$
Distribution Voltage(Specify when ordering)	No power distribution 10V or 15V@20mA	No power distribution 10V or 15V@20mA	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



**Features**

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

**CZ3093**  
1/1

**Input**

Input Signal	RS-485 half duplex
Distribution Voltage(Specify when ordering)	5V or 6V@100mA 8V or 9V or 12V@50mA

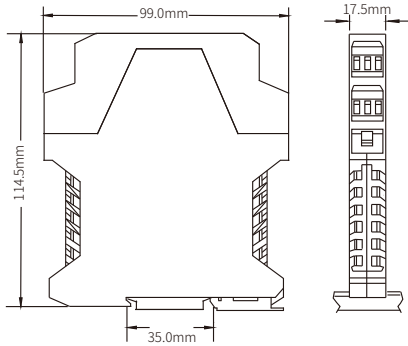
**Output**

Output Signal	RS-485 half duplex
Communication Signal Specification	RS-485
Signal Level Rules	standard RS-485 differential level
Transmission Delay	≤10μs
Serial Transmission Speed	≤56kbps

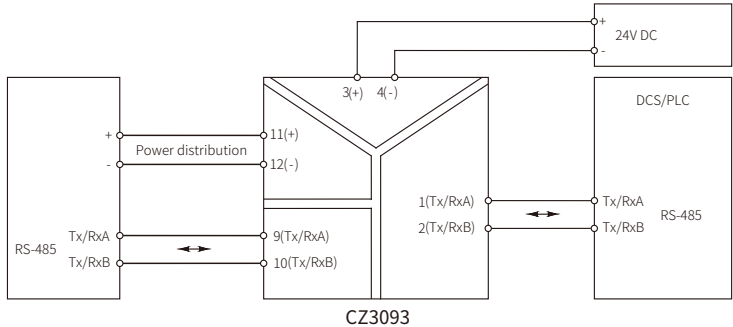
**General Parameters**

Supply Voltage	20~35V DC
Power Reverse Protection	Support
Current Consumption(Supply voltage:24V, power distribution: 6V/100mA)	≤160mA
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	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

### Input

- Input Current/Input Impedance
- Input Voltage/Input Impedance

### Power Distribution

### Output

- Output Current
- Load Resistance(Current output)
- Output Voltage
- Load Resistance(Voltage output)

### Fault Indicator and Current

### General Parameters

- Supply Voltage
- Power Reverse Protection
- Current Consumption(Supply voltage:24V)
- Transmission Accuracy
- Temperature Drift
- Response Time (0~90%)
- Dielectric Strength
- Insulation Resistance
- EMC Standards
- Ambient Temperature
- Suitable Field Apparatus

**CZ3383.11**  
1/1

**CZ3383.13**  
1/3

- 0~20mA, 4~20mA/≤100Ω
- 0~5V, 1~5V/≥100kΩ
- 0~10V, 2~10V/≥300kΩ
- ≥15.5V/20mA

- 0~20mA, 4~20mA/≤100Ω
- 0~5V, 1~5V/≥100kΩ
- 0~10V, 2~10V/≥300kΩ
- ≥15.5V/20mA

- 0~20mA, 4~20mA
- $R_L \leq 300\Omega$
- 0~5V, 1~5V, 0~10V, 2~10V
- $R_L \geq 2k\Omega$

- 0~20mA, 4~20mA
- $R_L \leq 300\Omega$
- 0~5V, 1~5V, 0~10V, 2~10V
- $R_L \geq 2k\Omega$

When line break/ line shorted, the alarm light flashes and the output is 0mA.

20~35V DC

20~35V DC

Support

Support

≤70mA

≤100mA

0.1%F.S.

0.1%F.S.

0.01%F.S./°C

0.01%F.S./°C

≤0.5s

≤0.5s

1500V AC;1min

1500V AC;1min

≥100MΩ; 500V DC

≥100MΩ; 500V DC

GB/T 18268(IEC 61326-1)

GB/T 18268(IEC 61326-1)

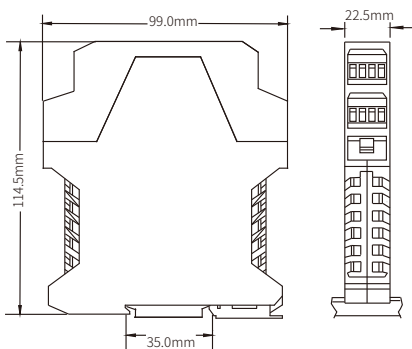
-20°C~+60°C

-20°C~+60°C

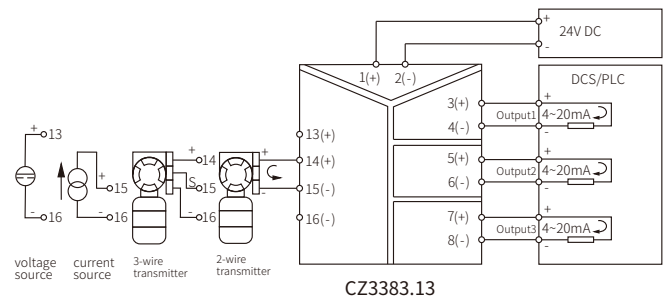
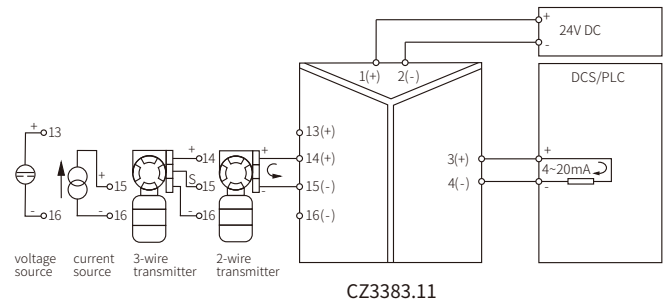
2-or 3-wire transmitter, current source, voltage source

2-or 3-wire transmitter, current source, voltage source

## Dimensions



## Connection



## Features

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

**CZ3383**  
**1/4**

### Input

Input Current/Input Impedance

0~20mA, 4~20mA/≤100Ω

Input Voltage/Input Impedance

0~5V, 1~5V/≥100kΩ

0~10V, 2~10V/≥300kΩ

≥15.5V/20mA

Power Distribution

### Output

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.

### General Parameters

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)

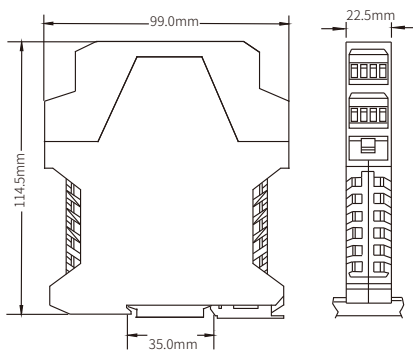
Ambient Temperature

-20°C~+60°C

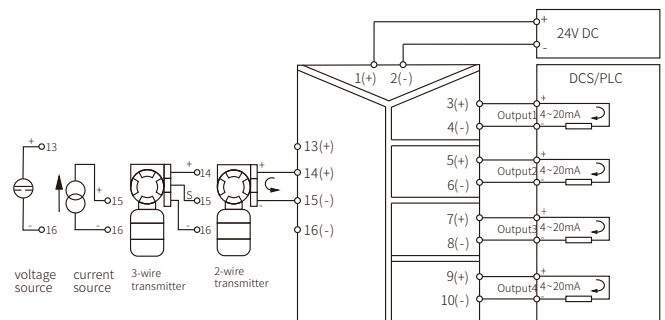
Suitable Field Apparatus

2-or 3-wire transmitter, current source, voltage source

## Dimensions



## Connection



CZ3383



## 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.

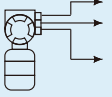
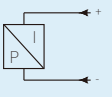
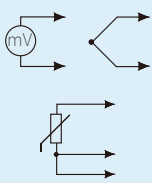
**■ Easy to Configure**  
Configure the parameters via software easily and quickly

**■ 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 0/1~5V	Independent powered	33
		CZ3535	1/2				
		CZ3536	2/2				
	Analog Output	CZ3567	1/1	0/4~20mA	0/4~20mA 0/1~5V	Independent powered	34
		CZ3538	2/2				
	Temperature Converters	CZ3571	1/1	RTD	0~20mA, 4~20mA 0~5V, 1~5V	Independent powered Configurable via software	35
		CZ3576	1/2				
		CZ3579	2/2	TC	0~20mA, 4~20mA 0~5V, 1~5V		36
		CZ3572	1/1				
		CZ3574	1/2	mV	0~20mA, 4~20mA 0~5V, 1~5V		37
		CZ3579.TC	2/2				
		CZ3575	1/1	0~5kΩ	0~20mA, 4~20mA 0~5V, 1~5V		
		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%	
RTD	Pt100	-200°C~+850°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				0~5kΩ	0.1%
				0~10kΩ	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 CJC. For every 100Ω increase in the compensation wire, the cold junction error increases by 0.2°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.
5. mV signal input needs to be customized.

## Configuration Accessory

**Configuration Tool: USBCOM-MINI**

**Software: Easyconfig**

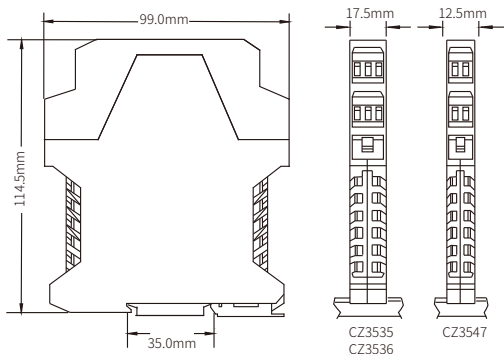

# Analog Input

## Features

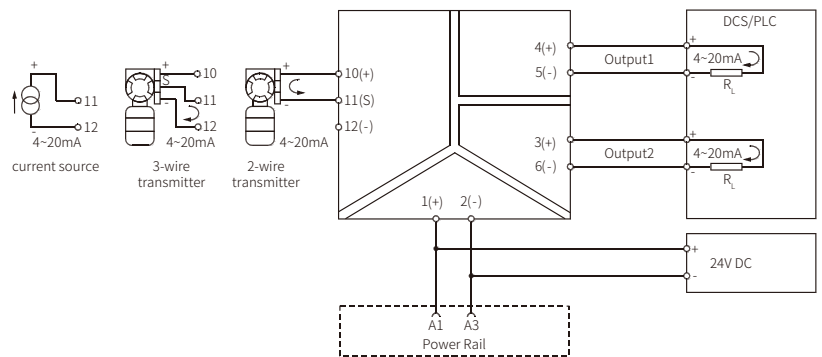
- 24V DC independent power supply
- 0/4~20mA current input
- 0/4~20mA current source output
- Power via DIN bus or terminal

	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	$\leq 50\Omega$	$\leq 50\Omega$	$\leq 50\Omega$
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(1)~5V / $R_L \geq 330k\Omega$	0(1)~5V / $R_L \geq 330k\Omega$
	0(2)~10V / $R_L \geq 660k\Omega$	0(2)~10V / $R_L \geq 660k\Omega$	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)	$\leq 60mA$	$\leq 75mA$	$\leq 100mA$
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./ $^{\circ}C$	0.005%F.S./ $^{\circ}C$	0.005%F.S./ $^{\circ}C$
Response Time (0~90%)	$\leq 0.5 ms$	$\leq 0.5 ms$	$\leq 0.5 ms$
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	2-or 3-wire transmitter, current source	2-or 3-wire transmitter, current source	2-or 3-wire transmitter, current source

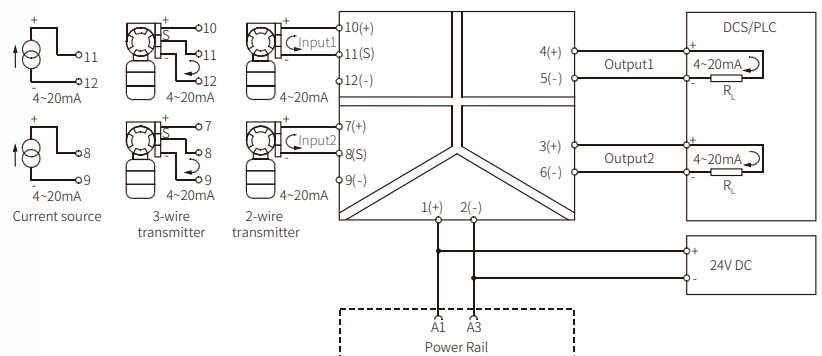
## Dimensions



## Connection



CZ3535(CZ3547 Output part only contains output 1)



CZ3536

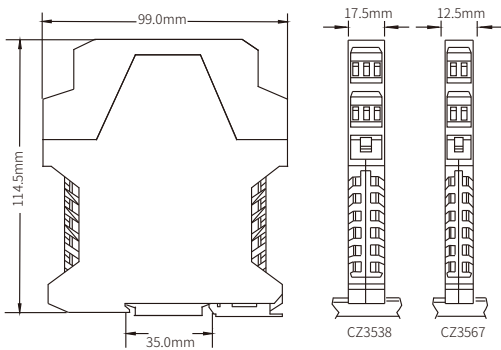


## Features

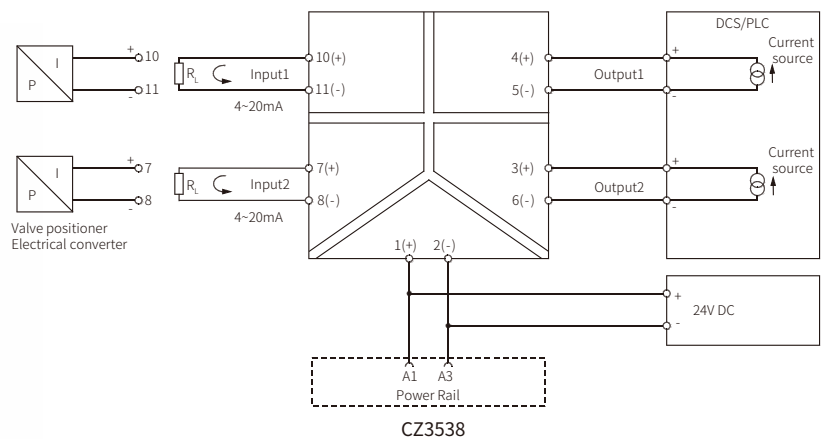
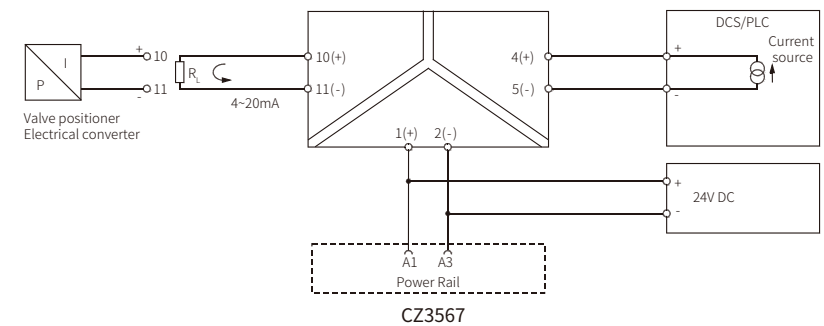
- 24V DC independent power supply
- 0/4~20mA current input/output
- Output load up to 800Ω
- Power via DIN bus or terminal

	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

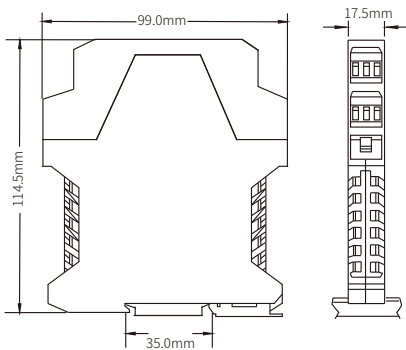
## Features

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

	CZ3571 1/1	CZ3576 1/2	CZ3579 2/2
<b>Input</b>			
Input Signal	PT100, Cu100, Cu50	PT100, Cu100, Cu50	PT100, 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

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

## Dimensions

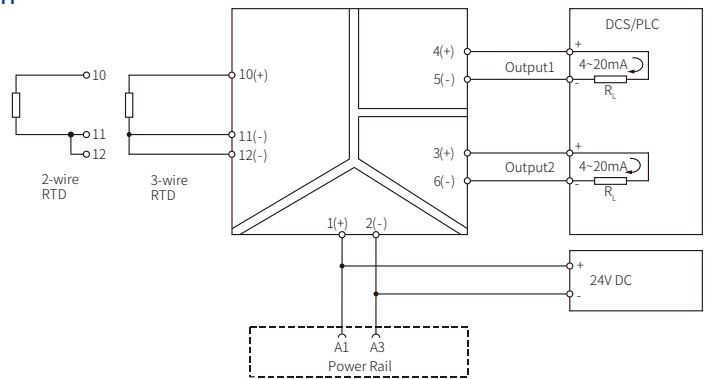


Note:

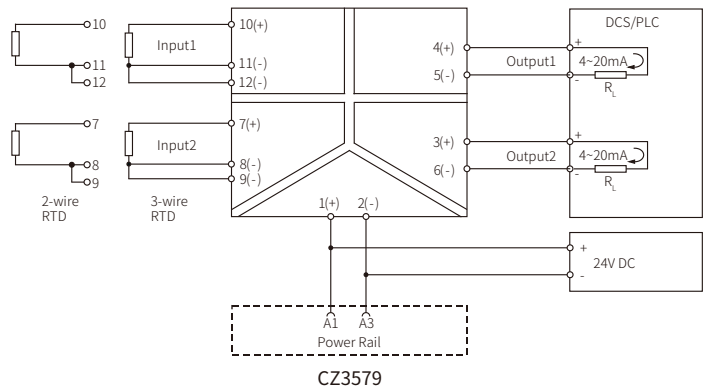
- For 3-wire Input, keep the resistance of the three wires as equal as possible.
- For 2-wire Input, terminal 11, 12(CZ3571/C3576), terminal 11, 12 and 8, 9(CZ3579) should be shorted.



## Connection



CZ3576(CZ3571 Output part only contains output 1)



CZ3579

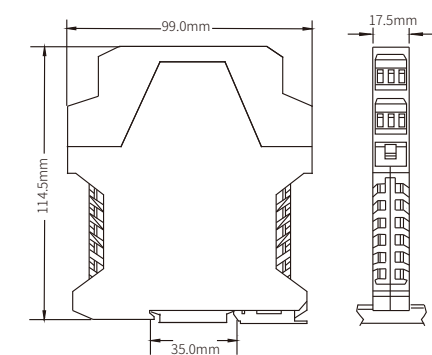
## Features

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

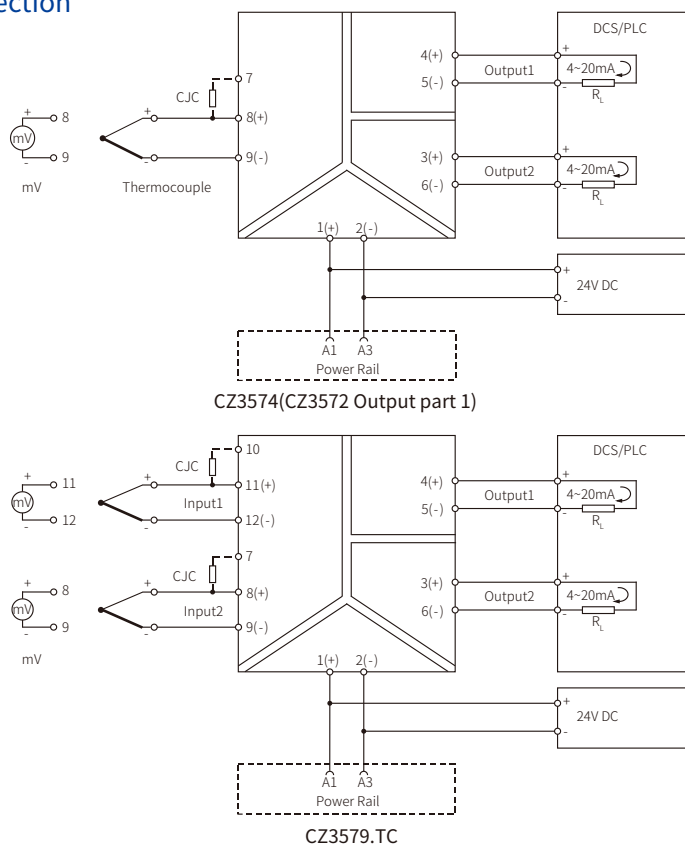
	CZ3572 1/1	CZ3574 1/2	CZ3579.TC 2/2
<b>Input</b>			
Input Signal(Customized mV signal)	T、E、J、K、N、R、S、B	T、E、J、K、N、R、S、B	T、E、J、K、N、R、S、B
Internal CJC Temperature Range	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
CJC Precision	±1°C	±1°C	±1°C
<b>Output</b>			
Output Current/Load Resistance	0~20mA, 4~20mA / $R_L \leq 300\Omega$	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	$I_L \approx 20.8mA / I_L \approx 3.8mA$	$I_L \approx 20.8mA / I_L \approx 3.8mA$	$I_L \approx 20.8mA / I_L \approx 3.8mA$
Fault Current of Line Break	$I \approx 20.8mA$	$I \approx 20.8mA$	$I \approx 20.8mA$
<b>General Parameters</b>			
Loop Supply Voltage( $U_s$ )	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./°C	0.01%F.S./°C	0.01%F.S./°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°C~+60°C	-20°C~+60°C	-20°C~+60°C
Suitable Field Apparatus	TC sensor and mV signal	TC sensor and mV signal	TC sensor and mV signal

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

## Dimensions



## Connection



# Potentiometer Input

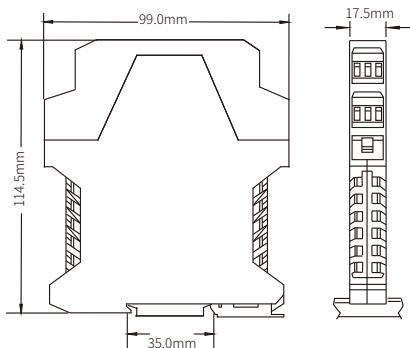
## Features

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

	CZ3575 1/1	CZ3576.R 1/2	CZ3579.R 2/2
<b>Input</b>			
Input Signal	0~5kΩ, 0~10kΩ	0~5kΩ, 0~10kΩ	0~5kΩ, 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)	$\leq 40mA$	$\leq 55mA$	$\leq 55mA$
Conversion Accuracy	5Ω/0.1%(Take the larger value)	5Ω/0.1%(Take the larger value)	5Ω/0.1%(Take the larger value)
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

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

## Dimensions

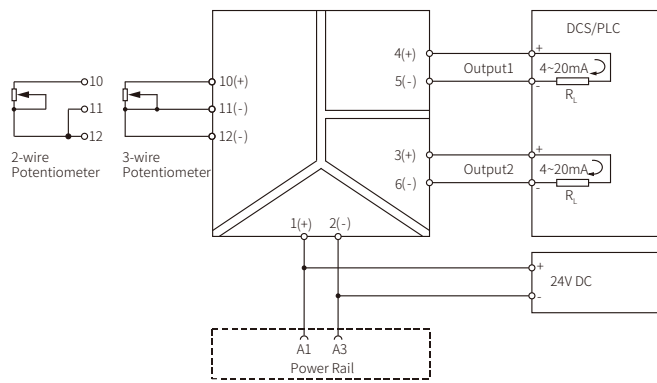


Note:

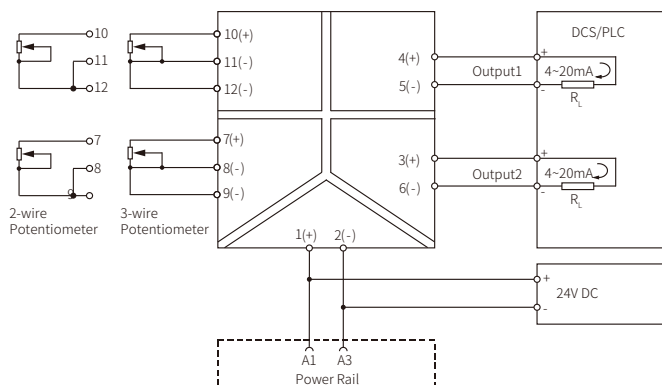
- For 3-wire Input, keep the resistance of the three wires as equal as possible.
- For 2-wire Input, terminal 11, 12(CZ3575/C3576.R), terminal 11, 12 and 8, 9(CZ3579) should be shorted.



## Connection



CZ3576.R(CZ3575 Output part only contains output 1)



CZ3579.R

# Redundant Power Feed Module

## Features

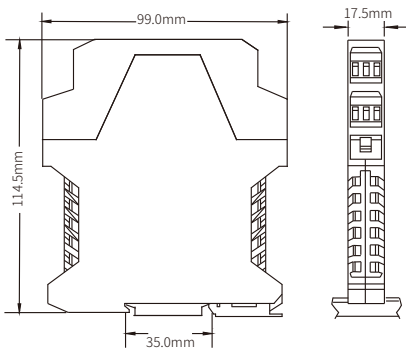
Used to deliver the power supply voltage to the DIN rail  
 Designed for application requiring redundant power  
 Supply rating 4 A or 8A, external fuse

CZ3500-B

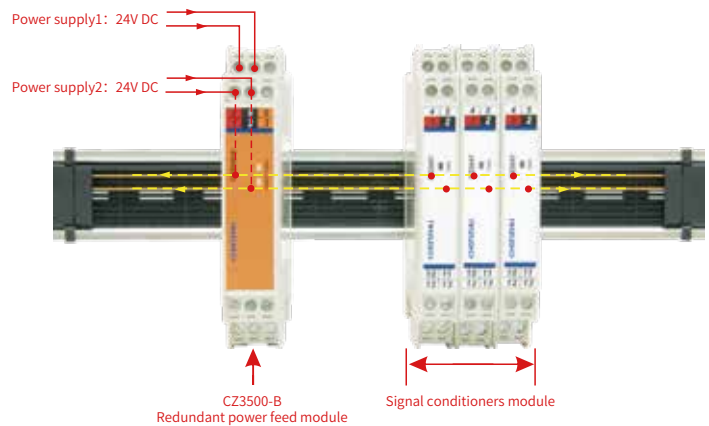
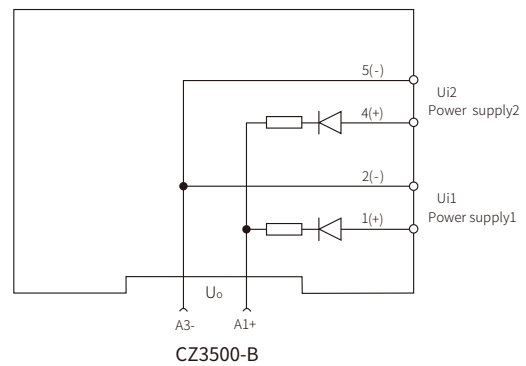


Input	
Rated Voltage (Ui)	21.5~35V DC
Power Dissipation	≤0.2W
Voltage Drop	≤1.5V
Output	
Output Voltage	$U_o=U_i-1.5V$
Output Current	Built-in 5A fuse: ≤4A Built-in 10A fuse: ≤8A
Output to	Bus base
Status Indication	
Green LED	LED on: power supply is normal LED off: power supply failure
General Parameters	
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

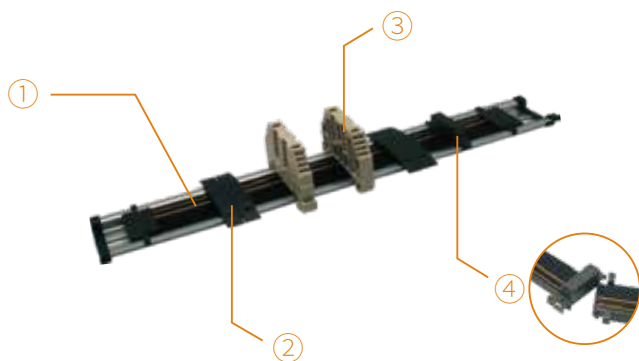
## Dimensions



## Connection



# Accessories



## Component:

- 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												

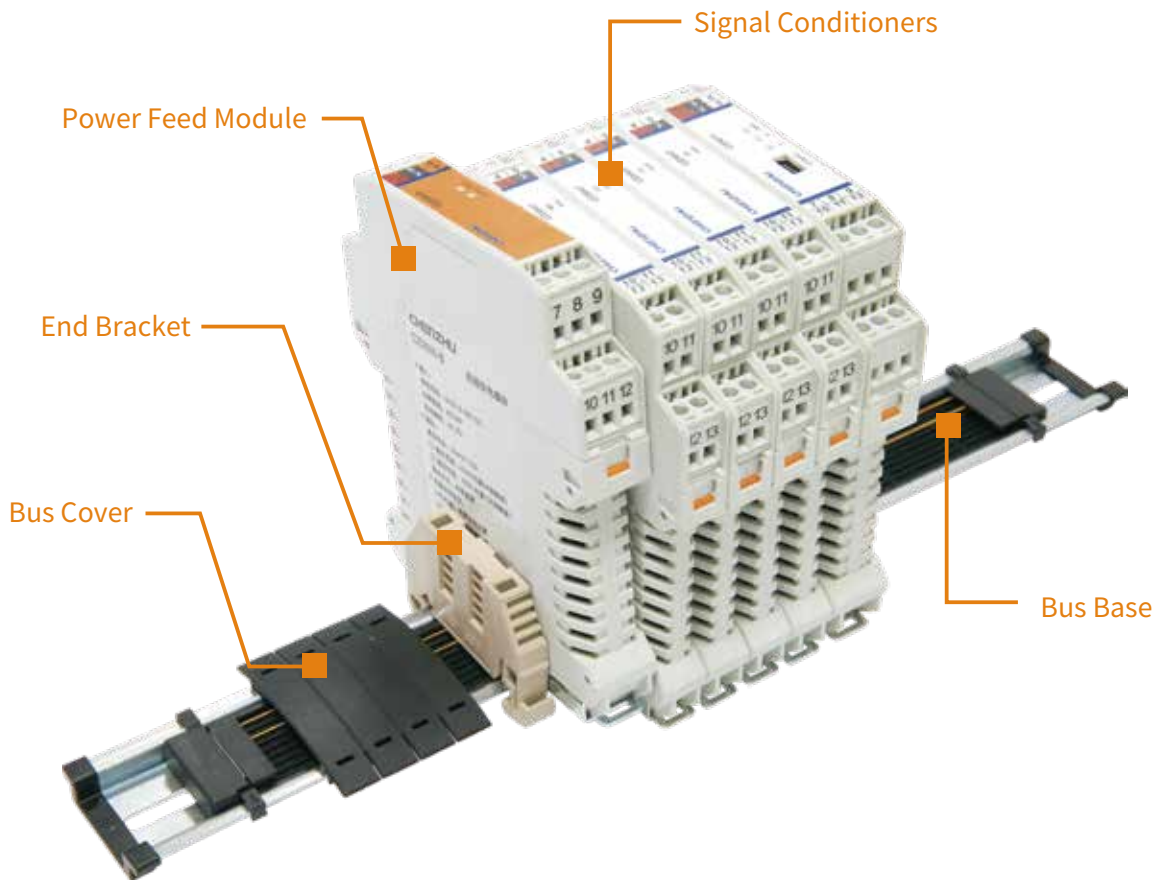
Bus cover	Dimensions	Description				
		<table border="1"> <tr> <td>Module no.</td> <td>CZBR-C</td> </tr> <tr> <td>Function</td> <td>Protect the exposed bus, can be split as needed</td> </tr> </table>	Module no.	CZBR-C	Function	Protect the exposed bus, can be split as needed
Module no.	CZBR-C					
Function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

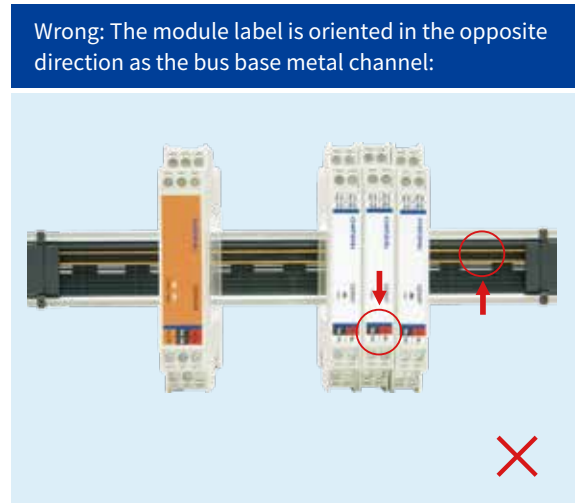
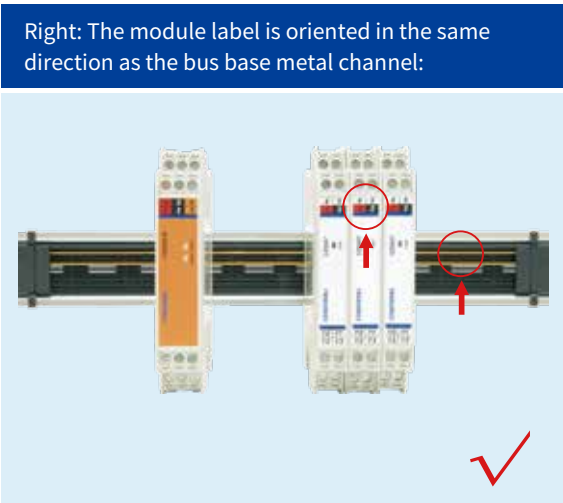
Expansion connector	Dimensions	Description				
		<table border="1"> <tr> <td>Module no.</td> <td>CZBR-B</td> </tr> <tr> <td>Function</td> <td>Connect the bus bases for extending</td> </tr> </table>	Module no.	CZBR-B	Function	Connect the bus bases for extending
Module no.	CZBR-B					
Function	Connect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



## Bus Power Supply Structure



## Module and Bus Base Connection





【Alibaba】



【Taobao】

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## Headquarters

### SHANGHAI CHENZHU INSTRUMENT CO.,LTD.

Add: Building 6, 201 Minyi Rd., Shanghai 201612, P.R.China

Tel: +86-21-64360668

E-mail: [chenzhu@chenzhu-inst.com](mailto:chenzhu@chenzhu-inst.com)

Web: [en.chenzhu-inst.com](http://en.chenzhu-inst.com)

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## ASEAN Region

### CHENZHU SDN BHD (1314739-P)

Add: 1F-16, IOI Business Park, No. 1, Persiaran Puchong Jaya Selatan, Bandar Puchong Jaya Selatan, 47100 Puchong, Selangor, Malaysia.

Tel: +60-3-80704739

E-mail: [sales@chenzhu-asean.com](mailto:sales@chenzhu-asean.com)

Web: [www.chenzhu-asean.com](http://www.chenzhu-asean.com)