■ Connections

(1) The isolators adopt knock-down terminals.

(2) The wires are single or multiple cables with cross-section of 0.5 mm^2~2.5mm^2.

(3) A length of 8mm bared wire is locked by the M3 bolt. As shown in figure.

M3

8.0

■ Installation

Mount the module on a 35mm DIN rail

(1) Make the upside of the isolator to the rail;

(2) Push the downside of the isolator towards the rail.

■ Disassembly

(1) Use a screwdriver (edge length≤6mm) insert the metal lock which at the downside of the isolator;

(2) Push the screwdriver upwards, and pull the metal lock downwards;

(3) Take out the isolator from the rail.
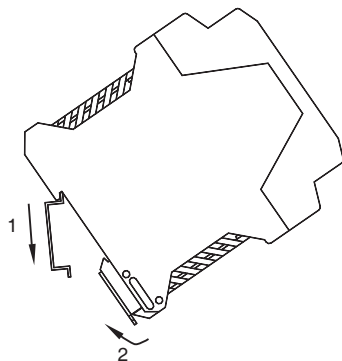
■ Maintenance

(1) Every product has been tested strictly before delivery. If users find any abnormality, please contact the nearest agent or our company.

(2) In 5 years from delivery date, if the product performs abnormally under normal use conditions, we will repair it for free.
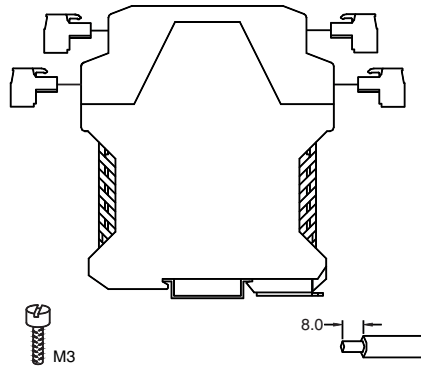
CHENZHU | User Manual

Isolator

CZ3077、CZ3177、CZ3277
CZ3078、CZ3178、CZ3278

Please read the instruction manual carefully before use the product, and please safekeeping.

⚠ Caution

■ Please check whether the product type on the package accords to the ordering contract;

■ Read this manual carefully before installation or using. If there is something unclear, please dial technic support hotline-400 881 0780;

■ Supply voltage is 24VDC, 220VAC is forbidden;

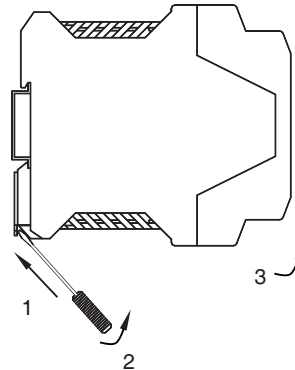■ Users are not allowed to dismantle or repair the barrier otherwise it will induce malfunction.

CZ.CZ3278..11(S)E-5.0/17.11

Summarize

Thermal resistance、 thermocouple input type isolator(Loop-powered), converts field thermal resistance or thermocouple signal into 4~20mA signal isolation output by digital linearization. It has sensor breakage alarm indicator function. Thermocouple input has cold junction compensation function. It is intelligent, indexing number of thermocouple and range can be configured through computer.

CZ3077、CZ3078: RTD input.
CZ3177、CZ3178: TC input.
CZ3277、CZ3278: RTD 、TC input.

Specification

Number of channels: 1(CZ3077、CZ3177、CZ3277)
2(CZ3078、CZ3178、CZ3278)
Supply voltage: 12~30V DC
Input: See "input signal and range scope list" as below

Signal type		Signal Range	Min. span	Accuracy
TC	T	−200℃~+400℃	50℃	0.5℃/0.1％
	E	−200℃~+900℃	50℃	0.5℃/0.1％
	J	−200℃~+1200℃	50℃	0.5℃/0.1％
	K	−200℃~+1372℃	50℃	0.5℃/0.1％
	N	−200℃~+1300℃	50℃	0.5℃/0.1％
	R	−40℃~+1768℃	500℃	1.5℃/0.1％
	S	−40℃~+1768℃	500℃	1.5℃/0.1％
	B	+320℃~+1820℃	500℃	1.5℃/0.1％
mV		−100mV~+100mV	10mV	20uV/0.1%
RTD	Pt100	−200℃~+850℃	20℃	0.2℃/0.1％
	Cu50	−50℃~+150℃	20℃	0.2℃/0.1％
	Cu100	−50℃~+150℃	20℃	0.2℃/0.1％

Note: 1."%" of output accuracy is relative to the setting range, should take a bigger of relative error and absolute error as the output accuracy in application.

2. RTD input, allow max wire resistance 50Ω (3-wire)；

3. TC input, transfer accuracy not contain cold junction compensation error;Every increase in compensation wire 100Ω, cold end error increases 0.2 ℃；

4. TC type B input, the lower limits of temperature range must be greater than 680℃, to meet the accuracy specifications.

5. mV signal has to be customized.

Output:
Current output: 4~20mA;
Load resistance: $R_L ≤ (Ue-12)/0.021Ω$

Alarm directions:
Lower limit overflow alarm, output current ≈3.8mA；
Upper limit overflow alarm and breakage alarm, output current ≈20.8mA
(Notes: breakage alarm current＜4mA or other special requirements, be customized)

Temperature drift: 0.01%F.S./℃
Cold junction compensation: ±1℃(Compensation range: -20℃~+60℃)
Response time: Reach 90% of final value in 1s
Power supply protection:
Protect the product from reverse supply voltge destroy
Electromagnetic compatibility: According to IEC 61326-1(GB/T 18268)
Dielectric strength:
1500V AC; 1minute(among power supply, input and output)
Insulation resistance:
≥100MΩ; 500V DC(among power supply, input, output and the shell)
Weight: Approx.150g
Suitable IS apparatus:
2-/3-wire thermal resistance, thermal thermocouple and mV signal

Operation Conditions

(1).The air should not contain any medium corrupting the coat of chrome, nickel and silver. Moreover,violent quiver and impact or any cause of electromagnetic induction (such as big current or spark, etc.)must be avoided when using.

(2). Operating temperature: -20℃~+60℃
(3). Storage temperature: -40℃~+80℃
(4). Relative humidity: 10%~90%

Configuration software EasyConfig

EasyConfig is configuration software. Based on the Windows operating system, the software is easy to use for its friendly interface and the use of USB interface. The parameters such as the sensor type and range scope could be set in by users the software.
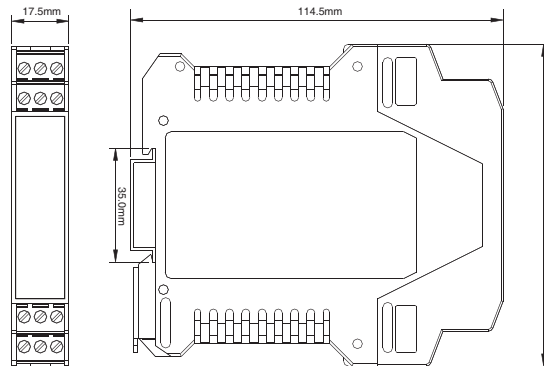
Version of operating system: Windows XP and above version
Hardware interface: USB interface
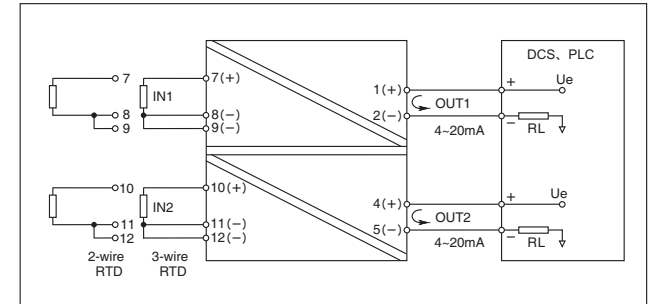Dedicated adapter: USBCOM-MINI(dedicated USB to RS-232 serial connection)

Dimensions

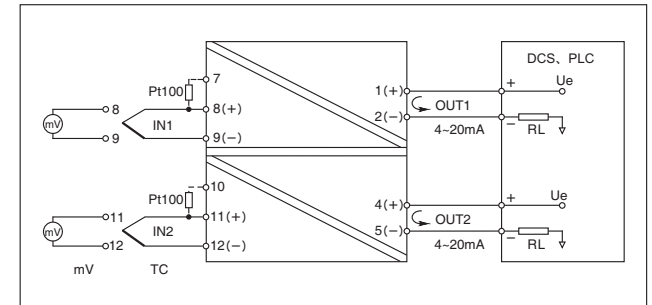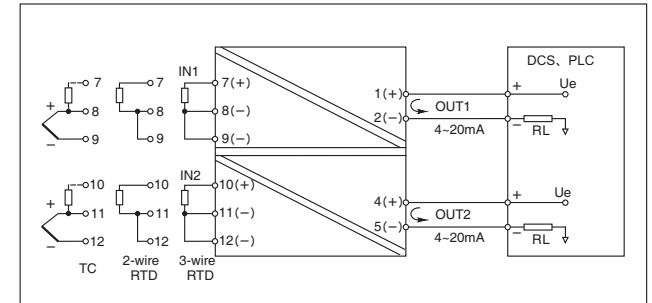114.5mm×99.0mm×17.5mm

Application

CZ3078

Note: CZ3077 only contain input 1 and output 1.

CZ3178

CZ3177 only contain input 1 and output 1.

CZ3278

CZ3277 only contain input 1 and output 1.

Note: The CZ3277 and CZ3278 are universal type temperature isolators. pelease use normal standard terminals for thermal resistance input, and use dedicated CJC terminals thermocouple input.