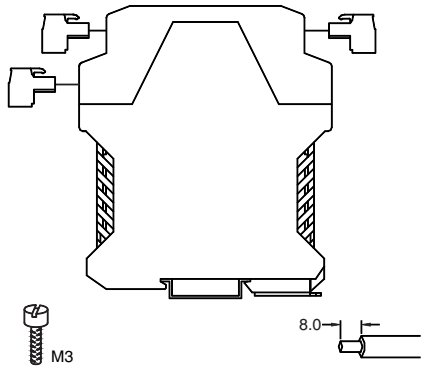


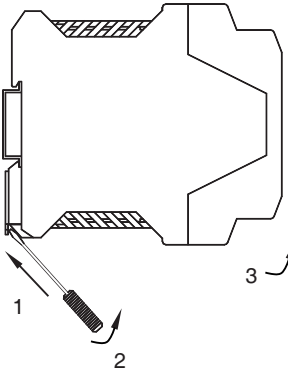
■ Connections

- (1) The isolators adopt knock-down terminals.
- (2) The wires are single or multiple cables with a cross-section of 0.5 mm²~2.5mm²
- (3) A length of 8mm bared wire is locked by the M3 bolt. As shown in figure.



■ 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.



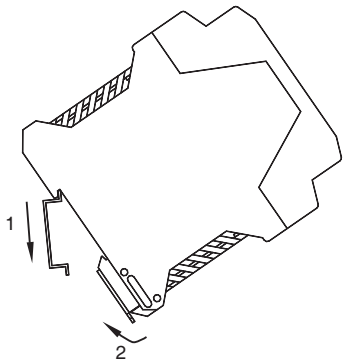
■ Maintenance

- (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.

■ 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.



TPS Elektronik GmbH * Senefelderstr. 8 * 41066
Mönchengladbach www.tps-elektronik.de *
office@tps-elektronik.de * +49(0)21 61 - 49 52 6 - 0

Isolator

CZ3072



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, you can dial our technic support hotline;
- Supply voltage is 24VDC, 220VAC is forbidden;
- Users are not allowed to dismantle or repair the barrier otherwise it will induce malfunction.

■ Summarize

Thermocouple type isolator, converts the TC, mV signal into 0/4~20mA current signal isolation or 0/1~5V voltage signal output. It has automatic cold junction compensation function. It is intelligent and could be configured with parameters such as the index number of thermocouple and the scope of range through computer. This product should be supplied power independently. Input circuit, output circuit and power supply are each galvanically isolated.

■ Specification

Number of channels: 1

Supply voltage: 20~35V DC

Current consumption: (at 24V DC supply, 20mA signal output) $\leq 35\text{mA}$

Input: The input signal and range scope list

Signal Type		Signal 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%
mV		-100mV ~+100mV	10mV	20uV/0.1%

Note: 1.% is related to the adjusted measurement range (the value to be applied is the greater).

2. When TC signal inputs, the conversion accuracy does not include the cold junction compensation error, and the conductor resistance increases per 100Ω, the cold junction compensation will add 0.2°C.

3. When B type TC signal inputs, the temperature range lower limit should be greater than 680°C. Then it can satisfy the precision index.

Output: Current: 0/4~20mA; Load resistance: $R_L \leq 300\Omega$

Voltage: 0/1~5V; Load resistance: $R_L \geq 20k\Omega$

(Note: output current: load resistance: $R_L \leq 550\Omega$, Current consumption: $\leq 50\text{mA}$, need be customized)

Alarm indication:

Under lower limit, LED L is flashing, output current is around 3.8mA

Exceed upper limit, LED H is flashing, output current is around 20.8mA

Open circuit, both L and H are flashing, output current is around 20.8mA
(Note: disconnection alarm current $< 4\text{mA}$ or other special requirements, need to be customized)

Temperature drift: 0.01°F.S./°C

Cold junction compensation error: $\pm 1^\circ\text{C}$ (-20°C ~ +60°C)

Response time: Reach 90% of final value in 1s

Power supply protection:

Protect the barrier form reverse supply voltage destroy

Electromagnetic compatibility: According to GB/T 18268 (IEC 61326-1)

Dielectric strength:

1500V AC; 1 minute (among power supply, input and output)

Insulation resistance:

$\geq 100\text{M}\Omega$; 500V DC (among power supply, input, output and the shell)

Weight: Approx. 100g

Suitable is apparatus: T, E, J, K, N, R, S, B 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.

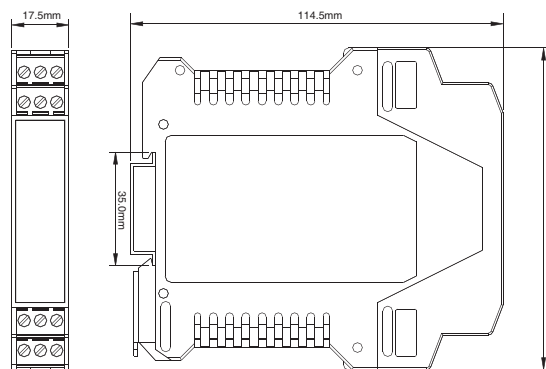
(2). Operating temperature: -20°C ~ +60°C

(3). Storage temperature: -40°C ~ +80°C

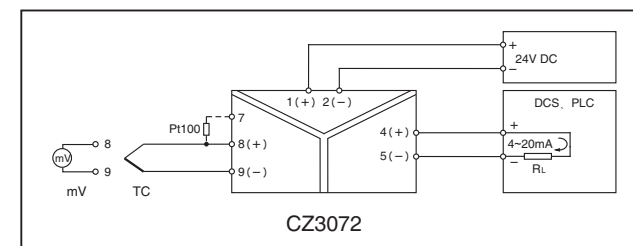
(4). Relative humidity: 10% ~ 90%

■ Outline dimensions

114.5mm × 99.0mm × 17.5mm



■ Application



■ Configuration software EasyTT

EasyTT software is temperature isolator CZ3000 series 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 the software by users.

Version operating system: 2000 Windows and above

Hardware interface: USB interface

Special adapter: USB COM-MINI (special USB to RS-232 serial connection)

Note: if the customer wants to use Windows 7 operating system, please contact customer service!



TPS Elektronik GmbH * Senefelder Str. 8 * 41066
Mönchengladbach www.tps-elektronik.de *
office@tps-elektronik.de * +49(0)21 61 - 49 52 6 - 0