

1/1:GS5072-EX

TC/mV input isolated barriers, convert TC/mV signals in hazardous area into current or voltage signals and output to safe area. It integrates CJC function in terminal and can be configured by computer. The product needs an independent power supply and galvanic isolation among power supply, input and output.

Specification

Supply Voltage:20~35V DC

Current Consumption (Supply voltage: 24V; output: 20mA) :≤35mA

Safe-area Output:

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

Output Voltage:0~5V/1~5V;Load Resistance: $R_L \geq 35k\Omega$

Note:Customers need specify current or voltage output when ordering.

Hazardous-area Input:

Input signal:T, E, J, K, N, R, S, B, mV

Input Signal Monitoring :

Input	Output	Indicating
Overrange	20.8mA	LED H flashing
Underrange	3.8mA	LED L flashing
Line breakage	20.8mA	LED H and LED L flashing simultaneously

Temperature Drift:0.01%F.S./°C

CJC Error:±1°C (Compensation range:-20°C~+60°C)

Response Time (0~90%) :≤1s

Power Supply Protection:Power supply reverse protection

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

Dielectric Strength:

Between non-intrinsically safe part and intrinsically safe part≥2500V AC

Between power supply part and output part ≥500V AC

Insulation Resistance:

Between non-intrinsically safe part and intrinsically safe part≥100MΩ

Between power supply part and output part ≥100MΩ

Weight:Approx. 100g

Suitable Location:Mounting in safe area, and connected to the IS apparatus in hazardous area up to zone0 IIC and zone20 IIIC

Suitable Field Apparatus:TC, mV signal

Input Signal 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%
mV signal		-100mV~+100mV	10mV	20μV / 0.1%

Note: 1、The “%” of conversion accuracy is relative to its range. Take the larger value between the relative error and the absolute error when applying.

2、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.

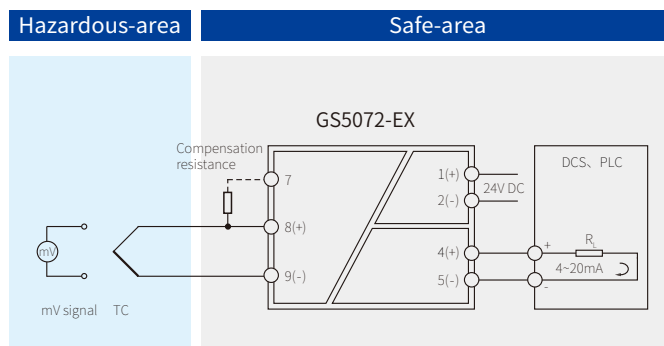
3、When the Type B thermocouple is input, the temperature range is required to be greater than 680 °C to ensure the accuracy index.

4、mV signal input needs to be customized.



Dimensions:114.5mm×99mm×17.5mm

Connection



Explosion-proof Certificate

Certificate Authority:NEPSI (China)

Ex Marking:[Ex ia Ga] II C

[Ex iaD]

Maximum Voltage:Um=250V

Intrinsic Safety Parameters:

Terminals (7、8、9)

U_o=8.5V, I_o=20mA, P_o=43mW

II C:C_o=6.5μF, L_o=3.6mH

* II B:C_o=60μF, L_o=10.8mH

II A:C_o=1000μF, L_o=28.8mH

* II B Intrinsic safety parameters are also suitable for dust explosion protection[Ex iaD]