

Temperature Converters

1/3:GS8272-EX.AR

Isolated barrier, with single channel temperature input and multi-functional output, convert the input signals into proportional 4~20mA current signal from hazardous area to safe area. It has alarm setting function, which can be output by relay according to set parameters. Power supply can be connected with rail or terminals.

Specification

Supply Voltage:20~35V DC

Current Consumption:≤60mA

Safe-area Relay Output:

Current Output:

Output Signal:4~20mA,d.c.

Load Resistance: $R_L \leq 300\Omega$

Response Time(0~90%):≤1s

Temperature Drift:0.1%F.S./10°C

Relay output:

Number of Channels:2

Contact Loading:250V AC,2A or 30V DC,2A

Load Type:Resistive load

Response Time:≤1s

User can set alarm parameters and relay logic through software

Transmission Accuracy:0.1%F.S.

CJC error:±1°C(-20°C~+60°C)

Hazardous-area Input:Please check the table 'Input Signal and Range'

Power Supply Protection:Power supply reverse protection

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

Ambient Temperature:-20°C~+60°C

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.150g

Suitable Location:Mounting in safe area, and connected to the IS apparatus in hazardous area up to zone 0 IIC and zone 20 IIIC

Suitable Field Apparatus:RTD,TC

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%
RTD	B	+320°C~+1820°C	500°C	1.5°C / 0.1%
	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%

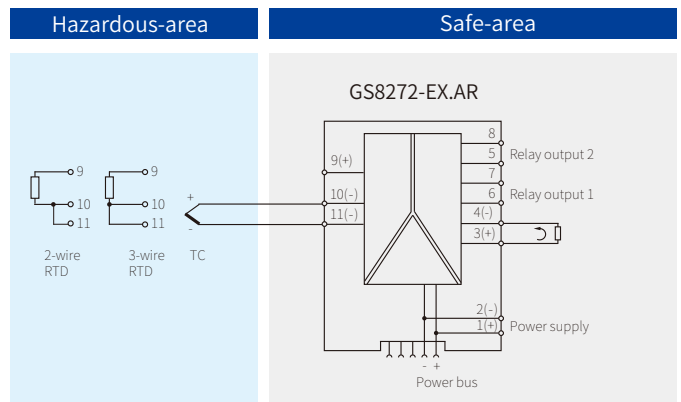
Note: 1、The “%” of conversion accuracy is relative to its range. Take the larger value between the relative error and the absolute error when applying.
2、Allow a maximum wire resistance of 50Ω/line for RTD input(3-wire).
3、When the thermocouple is input, the conversion accuracy does not include the CJC.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



Dimensions:118.9mm×106.0mm×17.5mm



Connection



Note:a)Use normal terminals when RTD input; Use CJC terminals when TC input;
b)Bus terminal is optional.

Explosion-proof Certificate

Certifying Authority:NEPSI(China)

Ex Marking:[Ex ia Ga] II C

[Ex iaD]

Maximum Voltage: $U_m=250V$

Intrinsic Safety Parameters:Terminals(9、10、11)

$U_o=6.6V, I_o=5mA, P_o=9mW$

IIC: $C_o=22\mu F, L_o=100mH$

*IIB: $C_o=66\mu F, L_o=300mH$

IIA: $C_o=176\mu F, L_o=800mH$

*IIB Intrinsic Safety Parameters are also suitable for dust explosion protection[Ex iaD]

Description of Indicator Light and Output Current

Example(Default setting):

Instrument Status	LED L	LED H	Output Current
Normal	OFF	OFF	4~20mA
Underrange	Flashing(slow)	OFF	3.8~4mA
Overrange	OFF	Flashing(slow)	20~20.8mA
Output below the lower limit	Flashing(fast)	OFF	3.8mA
Output exceeds the upper limit	OFF	Flashing(fast)	20.8mA
Line break error	OFF	ON	21mA
Line shorted error	ON	OFF	3mA

Note:TC input can't detect input shorted error