

Temperature Converter

1/1:GS5071-EX

RTD input isolated barriers, convert RTD signals in hazardous area into current or voltage signals and output to safe area. It 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:

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

Voltage output: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:Pt100, Cu50, Cu100

Input Signal Monitoring:

Input	Output	Indicating
Ovrrange	20.8mA	LED H flashing
Underrange	3.8mA	LED L flashing
Line breakage	20.8mA	LED H and LED L flashing simultaneously
Line shorted	3mA	LED H and LED L flashing simultaneously

Temperature Drift:0.01%F.S./°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 $\geq 2500V$ AC

Between power supply part and output part $\geq 500V$ AC

Insulation Resistance:

Between non-intrinsically safe part and intrinsically safe part $\geq 100M\Omega$

Between power supply part and output part $\geq 100M\Omega$

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:2-wire or 3-wire RTD

Input Signal and Range

	Type	Range	Min.Span	Accuracy
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%

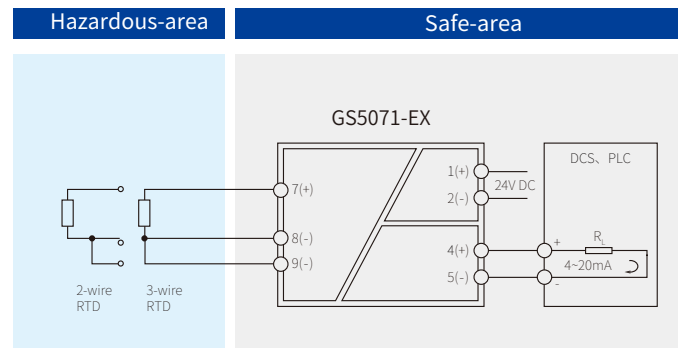
Note:1、The “%” of conversion accuracy is relative to its range. Take the larger value between the relative error and the absolute error when applying.

2、Allow a maximum wire resistance of 50Ω/line for RTD input (3-wire).



Dimensions:114.5mm×99mm×12.5mm

Connection



Explosion-proof Certificate

Certificate Authority:NEPSI (China)

Ex Marking:[Ex ia Ga] II C

[Ex iaD]

Maximum Voltage: $U_m=250V$

Intrinsic Safety Parameters:

Terminals (7、8、9)

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

II C: $C_o=6.5\mu F$, $L_o=3.6mH$

* II B: $C_o=60\mu F$, $L_o=10.8mH$

II A: $C_o=1000\mu F$, $L_o=28.8mH$

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