1/3:GS8272-EX.MR

Isolated barrier, with single channel temperature input and multi-functional output, provide one channel RS-485 output based on MODBUS-RTU protocal. It has alarm setting function, which can be output by relay according to set parameters. The RS485 interface and power supply can be connected with rail or terminals.

Dimensions:118.9mm×106.0mm×17.5mm

Specification

Supply Voltage:20~35V DC
Current Consumption:≤50mA
Safe-area Relay Output:
RS485 Output:
Communication Protocol:MODBUS-RTU,
Communication Distance:≤1000m
Number of Slaves:≤32
Response Time:≤1s
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

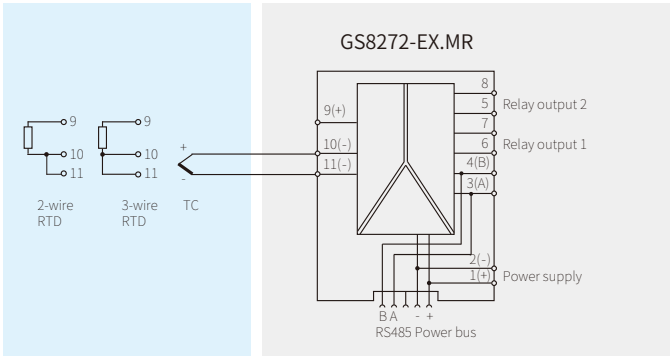
Input Signal and Range

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

Connection

Hazardous-area | Safe-area



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:Um=250V
Intrinsic Safety Parameters:Terminals(9、10、11)
U_0=6.6V,I_0=5mA,P_0=9mW
IIC:C_0=22μF, L_0=100mH
*IIB:C_0=66μF, L_0=300mH
IIA:C_0=176μF, L_0=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
Normal	OFF	OFF
Underrange	Flashing(slow)	OFF
Overrange	OFF	Flashing(slow)
Output below the lower limit	Flashing(fast)	OFF
Output exceeds the upper limit	OFF	Flashing(fast)
Line break error	OFF	ON
Line shorted error	ON	OFF

Note:TC input can't detect input shorted error