

SGR

RoHS

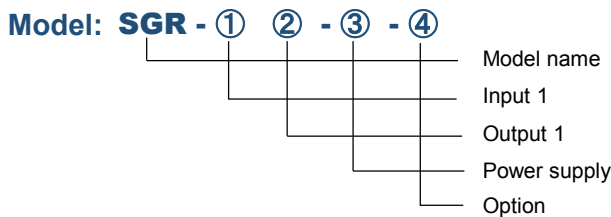
RTD Transmitter (1-output)

Features:

SGR (1-input 1-output) converts RTD input signal (JP100, JPt100) into isolated DC voltage/current. Indication displays are equipped.

Functions:

- Sensor correction (Input value correction)
- Normal/Reverse mode
- Filter time constant
- Manual mode
- Input and output types can be changed.
- Output high and low limits



① INPUT 1

RTD	P0	Pt100
	P1	
	P2	
	P3	JPt100

② OUTPUT 1

DC Current	1	4 to 20mA (allowable load resistance 750Ω max.)
	2	0 to 20mA (allowable load resistance 750Ω max.)※1
	3	0 to 16mA (allowable load resistance 900Ω max.)※1
	4	2 to 10mA (allowable load resistance 1500Ω max.)
	5	0 to 10mA (allowable load resistance 1500Ω max.)※1
DC Voltage	A	0 to 10mV (allowable load resistance 10kΩ min.)※2
	B	0 to 100mV (allowable load resistance 100kΩ min.)※2
	C	0 to 1V (allowable load resistance 1000Ω min.)※2
	D	0 to 5V (allowable load resistance 5000Ω min.)※2
	E	1 to 5V (allowable load resistance 5000Ω min.)
	F	0 to 10V (allowable load resistance 10kΩ min.)※2
	G	-5 to 5V (allowable load resistance 10kΩ min.)

※1: 0mA or less: Out of base accuracy.

※2: 0V or less: Out of base accuracy.

③ Power supply

0	100 to 240V AC 50/60Hz
1	24V AC/DC 50/60Hz

For SGRL (with serial communication function), only [0: 100 to 240V AC] is selectable.

④ Option

0	No option needed
1	Multi-rotation trimmer
2	Moisture-proof treatment
3	Multi-rotation trimmer + Moisture-proof treatment

Performance

Base accuracy (at 25°C)	±0.1% of each input span
Display accuracy	Base accuracy ±1 digit
Temperature coefficient	± 0.015%/°C (0 to 10mV output:±0.02%/°C)
Effect of allowable lead wire resistance	Less than 20Ω per wire: Base accuracy 20Ω or more per wire: Base accuracy + 0.005 %/Ω
Response time	0.5 sec. max. (0→90%)
Insulation resistance	100MΩ minimum, at 500V DC
Dielectric strength	2.0kV AC for 1 minute

General specifications

Input	Pt100, JPt100 Input detection current: Approx. 200 μA, Allowable lead wire resistance: 200Ω or less per wire		
Zero adjustment range	-5 to 5%(Adjustable from front panel.)	Span adjustment range	95 to 105% (Adjustable from front panel.)
Power supply	100 to 240V AC 50/60Hz 24V AC/DC	Allowable voltage range	85 to 264V AC 20 to 28 V AC/DC
Power consumption	100 to 240 V AC: Approx. 9 VA max. (SGRL: Approx. 10 VA max.) 24 V AC: Approx. 6 VA max. 24 V DC: Approx. 3 W max.		
Operating temperature, humidity	-10 to 55°C (Non-condensing, No icing), 35 to 85%RH (Non-condensing)		
Storage temperature	-10 to 60°C		
Material	Case: Flame-resistant resin, Black color, Panel: Polycarbonate		
Mounting method	DIN rail		
External dimensions	22.5(W) x 89(H) x 70(D)mm (without socket)		
Weight	Approx. 77g (without socket)		

Measurement range

Input code	Measurement range ※2		Resolution
P0	-200 to 650 °C	-328 to 1202 °F	1°C(°F)
P1	-100 to 100 °C	-148 to 212 °F	1°C(°F)※1
P2	-200 to 500 °C	-328 to 932 °F	1°C(°F)
P3	-100 to 100 °C	-148 to 212 °F	1°C(°F)※1

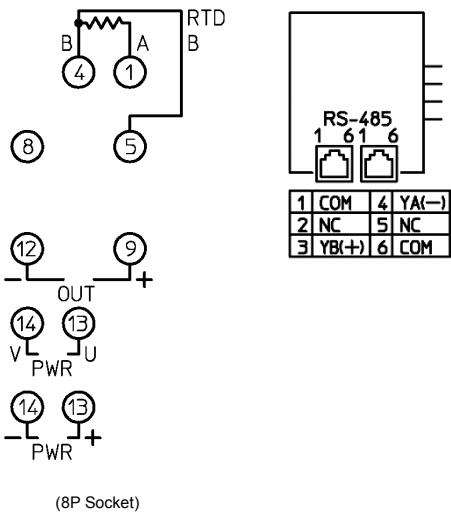
※1: When '1 digit after decimal place' is selected in [decimal point place], it becomes 0.1.

※2: °C or °F can be selected in [Input unit].

Please specify the input span. Minimum span is 50°C or 100°F.

Terminal arrangement

PWR ⑬ - ⑭	Power supply voltage 100 to 240V AC, 24V AC/DC
OUT ⑨ - ⑫	Output
RTD ① - ④ - ⑤	RTD input
RS-485	Serial communication RS-485 (For SGRL)



Circuit configuration

