

SGB

RoHS

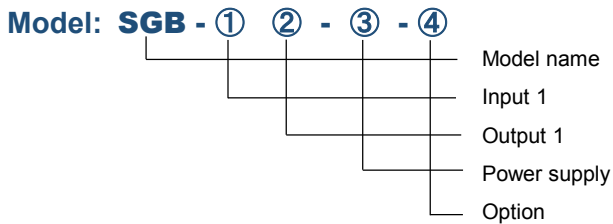
Ratio Transmitter (1-output)

Features:

SGB (1-input 1-output) converts DC voltage/current input into isolated DC voltage/current by setting ratio and bias values using arithmetic expressions. Indication displays are equipped, so numerical values can be set easily. Direct ratio and bias settings are also possible without using arithmetic expressions.

Functions:

- Ratio and bias value setting using arithmetic expressions
- Direct ratio and bias value setting using 2 pairs of input and output values)
- 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

DC current	A0	4 to 20mA (Built-in 50Ω shunt resistor)
	A1	4 to 20mA (250Ω shunt resistor)
	A2	4 to 20mA (50Ω shunt resistor)
	A3	0 to 20mA (250Ω shunt resistor)
	A4	0 to 16mA (62.5Ω shunt resistor)
	A5	2 to 10mA (250Ω shunt resistor)
	A6	0 to 10mA (100Ω shunt resistor)
	A7	1 to 5mA (100Ω shunt resistor)
	A8	0 to 1mA (1000Ω shunt resistor)
	A9	10 to 50mA (10Ω shunt resistor)
DC voltage	V0	0 to 10mV (Input resistance 1MΩ)
	V1	0 to 50mV (Input resistance 1MΩ)
	V2	0 to 60mV (Input resistance 1MΩ)
	V3	0 to 100mV (Input resistance 1MΩ)
	V4	0 to 1V (Input resistance 1MΩ)
	V5	0 to 5V (Input resistance 1MΩ)
	V6	1 to 5V (Input resistance 1MΩ)
	V7	-5 to 5V (Input resistance 1MΩ)
	V8	0 to 10V (Input resistance 1MΩ)
	V9	-10 to 10V (Input resistance 1MΩ)

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 SGBL (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)
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	DC current	4 to 20mA, 0 to 20mA, 0 to 16mA, 2 to 10mA, 0 to 10mA, 1 to 5mA, 0 to 1mA, 10 to 50mA DC	
	DC voltage	0 to 10mV, 0 to 50mV, 0 to 60mV, 0 to 100mV, 0 to 1V, 0 to 5V, 1 to 5V, -5 to 5V, 0 to 10V, -10 to 10V DC	
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	Allowable voltage range	85 to 264V AC
	24V AC/DC 50/60Hz		20 to 28V AC/DC
Power consumption	100 to 240 V AC: Approx. 9 VA max. (SGBL: 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)		

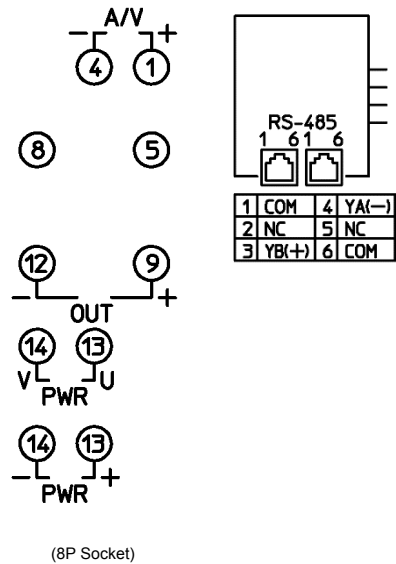
Measurement range

Input code	Measurement range	Resolution
A0	-1999 to 9999 ※	1
A1		1
A2		1
A3		1
A4		1
A5		1
A6		1
A7		1
A8		1
A9		1
V0	1	
V1	1	
V2	1	
V3	1	
V4	1	
V5	1	
V6	1	
V7	1	
V8	1	
V9	1	

※: Decimal point position change and scaling are possible.

Terminal arrangement

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



Circuit configuration

