

SGD

RoHS

Current Loop Supply (1-output)

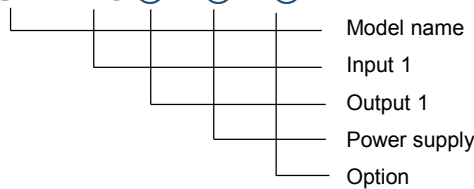
Features:

SGD (1-input 1-output) converts DC current input into isolated DC voltage/current. This unit can be used as the power source for a 2-wire transmitter (sensors, etc.). Indication displays are equipped.

Functions:

- Square root extraction function
- 'SMART' transmitter compatible
(Shunt resistor 50Ω + Check resistance 250Ω)
- Sensor correction (Input value correction)
- Normal/Reverse mode
- Filter time constant
- Manual mode
- Output type can be changed.

Model: **SGD** - **A0** ② - ③ - ④



INPUT 1

DC current	A0	4 to 20mA (Built-in 50Ω shunt resistor)
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③ Power supply

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

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

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.

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

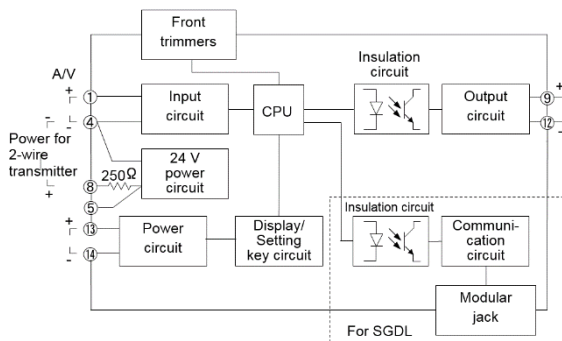
General specifications

Input	Input resistance: Approx. 300Ω (Shunt resistor 50Ω + Check resistance 250Ω)		
Power supply for 2-wire transmitter	Output voltage: 24 to 28V DC (When load current is 20mA) Ripple voltage: Within 200mV (When load current is 20mA) Max. load current: 25mA		
Zero adjustment range	-5 to 5% (Adjustable from front panel.)	Span adjustment range	95 to 105% (Adjustable from front.)
Power supply	100 to 240V AC 50/60Hz 24V AC/DC 50/60Hz	Allowable voltage range	85 to 264V AC 20 to 28V AC/DC
Power consumption	100 to 240 V AC: Approx. 10 VA max. (SGDL: Approx. 11 VA max.) 24 V AC: Approx. 7 VA max. 24 V DC: Approx. 4 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. 78g (without socket)		

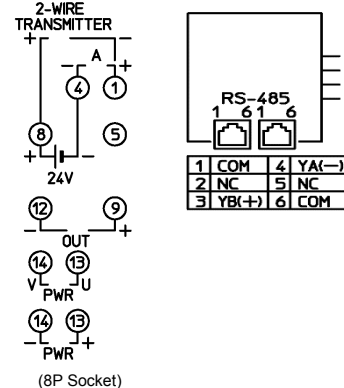
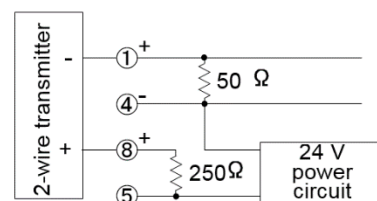
Measurement range

Input code	Measurement range	Resolution
A0	-1999 to 9999 ※	1

※ Decimal point position change and scaling are possible.

Circuit configuration

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
24V ④ - ⑧	Power supply for 2-wire transmitter
RS-485	Serial communication RS-485 (For SGDL)


When using as a current loop supply

When using as an isolator or square root extractor
