

# SHD

RoHS

## Current Loop Supply (1-output)

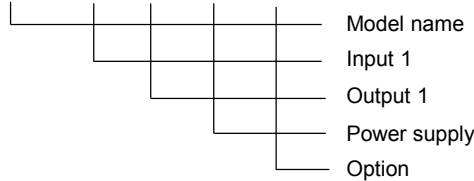
### Features:

SHD (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.).

### Functions: (Can be changed via the Setting Software)

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

Model: **SHD - A0 ② - 0 - ④**



### INPUT 1

DC current	<b>A0</b>	4 to 20mA (Built-in 50Ω shunt resistor)
------------	-----------	--

### Power Supply

<b>0</b>	100 to 240V AC 50/60Hz
----------	------------------------

### ② OUTPUT 1

DC Current	Output	Description
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	Output	Description
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

<b>0</b>	No option needed
<b>1</b>	Multi-rotation trimmer
<b>2</b>	Moisture-proof treatment
<b>3</b>	Multi-rotation trimmer + Moisture-proof treatment

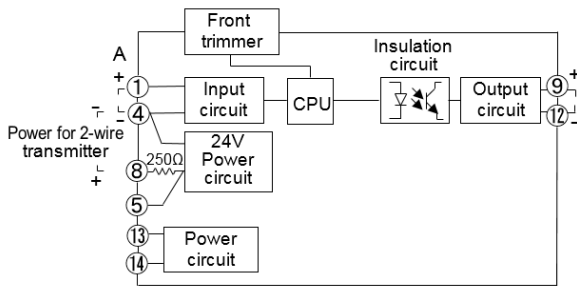
**Performance**

Base accuracy (at 25°C)	±0.1% of each input span
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**

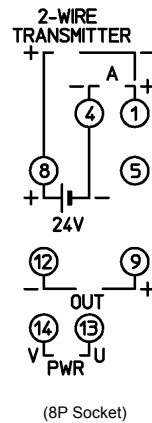
Input	Input resistance: Approx. 300Ω (Shunt resistor 50Ω + Check resistance 250Ω)		
Power supply for 2-wire transmitter	Output voltage: 24 to 28V DC (When load current is 20mA) Ripple voltage: Within 200mV (When load current is 20mA) Max. load current: 25mA		
Zero adjustment range	-5 to 5% (Adjustable from front panel.)	Span adjustment range	95 to 105% (Adjustable from front panel)
Power supply	100 to 240V AC 50/60Hz	Allowable voltage range	85 to 264V AC
Power consumption	Approx. 10 VA 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)		

**Circuit Configuration**

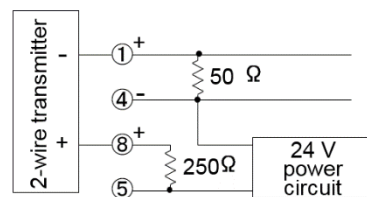


**Terminal Arrangement**

PWR ⑬ - ⑭	Power supply voltage 100 to 240V AC
OUT ⑨ - ⑫	Output
A ① - ④	DC current input
24V ④ - ⑧	Power supply for 2-wire transmitter



**When using as a current loop supply**



**When using as an isolator or square root extractor**

