

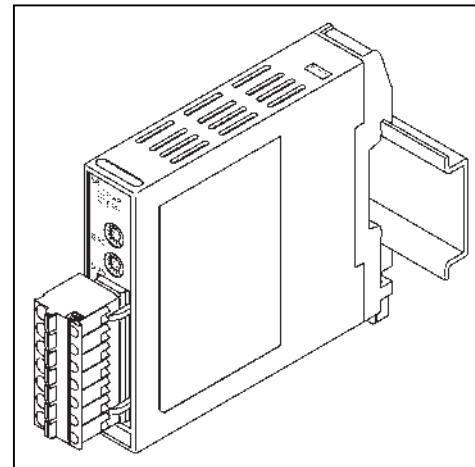
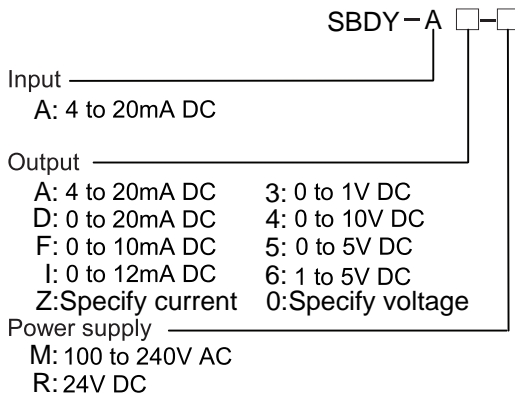
Current Loop Supply

MODEL SBDY

■ Features

- Simple wiring using a plug-in socket
- Compact
- 3-port insulation (Input-Output-Power)

■ Model



■ How to order

Specify a model.
(e.g.) SBDY-AA-M

■ Input specifications

DC current: 4 to 20mA DC
Shunt resistor: 50 built-in

■ Output specifications

When the output range lower limit is zero, (even if zero adjustment results in a negative value), output value will not indicate a negative value.

DC current

Output range	Allowable load resistance	Zero adjustment range	Span adjustment range
4 to 20mA DC	600 or more	-2.5 to 2.5%	97.5 to 102.5%
0 to 20mA DC	600 or more	0 to 2.5%	97.5 to 102.5%
0 to 12mA DC	1k or less	0 to 2.5%	97.5 to 102.5%
0 to 10mA DC	1k or less	0 to 2.5%	97.5 to 102.5%

DC voltage

Output range	Allowable load resistance	Zero adjustment range	Span adjustment range
0 to 1V DC	100 or more	0 to 2.5%	97.5 to 102.5%
0 to 5V DC	500 or more	0 to 2.5%	97.5 to 102.5%
1 to 5V DC	500 or more	-2.5 to 2.5%	97.5 to 102.5%
0 to 10V DC	1k or more	0 to 2.5%	97.5 to 102.5%

■ 2-wire transmitter power supply

Output voltage : $24 \pm 3V$ DC (when load current is 20mA)
Ripple voltage : 200mV DC or less (when load current is 20mA)

Max. load current: 25mA DC

■ Performance

Accuracy : Within $\pm 0.2\%$
Response time : 1 sec. (0 \rightarrow 90%)
(Average 0.5 sec)
Temperature coefficient: $\pm 0.015\%/^{\circ}C$
Insulation resistance : 10M or more, at 500V DC
(Input-Output-Power)
Dielectric strength : 2.0kV AC for 1 minute
(Input-Output-Power)

Note: Input terminals: 1, 2, 3 (Power supply for 2-wire transmitter included)

SB series

Instrument specifications

Case : Flame resistant resin Color: Light gray
 Front panel : Polycarbonate
 Spring type plug: Polyamide Color: Green
 Adjustment: By the front potentiometer

Zero adjustment : $\pm 2.5\%$
 Span adjustment : $\pm 2.5\%$

Indication:

Power indicator (PWR): Green
 Lights when the power is turned on.
 Flashes in 500ms cycles when an error has occurred in non-volatile IC memory.
 Error indicator (ERR): Red

Flashes in 250ms cycles when input is 110% or more.
 Flashes in 500ms cycles when input is -10% or less.

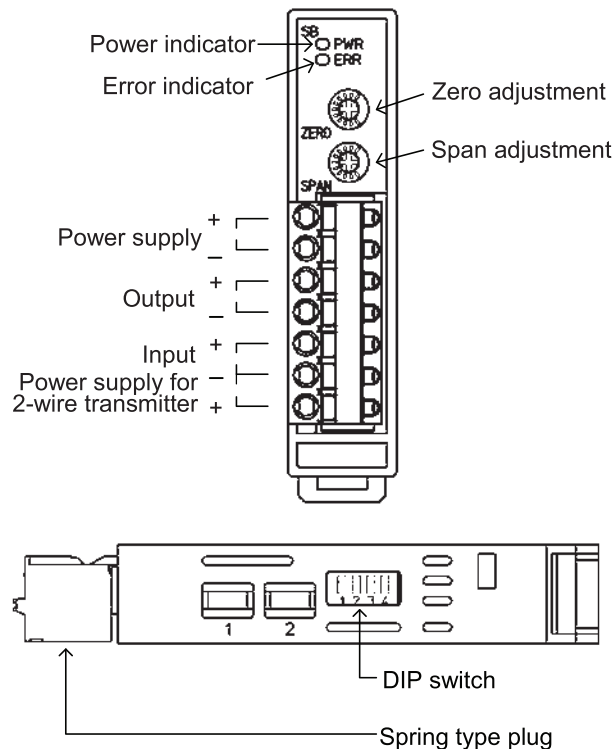
Output status selection: Selects Normal or Reverse with the DIP switch.

No.1 OFF: Normal, ON: Reverse

Momentary power failure: 30msec.

Self diagnosis:

The CPU is monitored by a watchdog timer, and when an abnormal status is found on the CPU, the unit restarts with the reset action.



Installation specifications

Power supply

- 100 to 240V AC 50/60Hz
 Allowable voltage range: 85 to 264V AC
 Power consumption : Approx. 3.5VA
- 24V DC
 Allowable voltage range: 20 to 28V DC
 Power consumption : Approx. 3.5W

Ambient temperature: -5 to 55°C

Ambient humidity : 35 to 85%RH (non-condensing)

Weight : Approx. 80g

Mounting method : DIN rail mounting

Be sure to use fastening plates at both ends of the unit after the unit is mounted to the DIN rail.

External dimensions : 17.5 (W) x 75 (H) x 85 (D) mm

Environmental specification

RoHS directive compliance

Ferrules

Made by Phoenix Contact GMBH & CO.

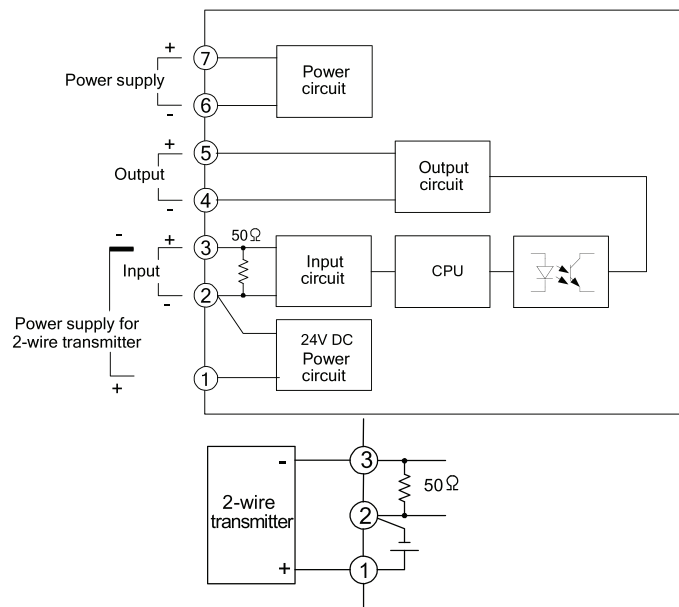
Insulation sleeve attached

Model	Conductor cross section
AI0.25-6BU	0.2 – 0.25mm ²
AI0.34-8TQ	0.25 – 0.34mm ²
AI0.5-8WH	0.34 – 0.5mm ²
AI0.75-8GY	0.5 – 0.75mm ²
AI1-8RD	0.75 – 1.0mm ²
AI1.5-8BK	1.0 – 1.5mm ²
AI2.5-8BU	1.5 – 2.5mm ²

Crimping pliers

CRIMPFOX ZA3
 CRIMPFOX UD6

Circuit configuration, terminal arrangement



External dimensions (Scale: mm)

