

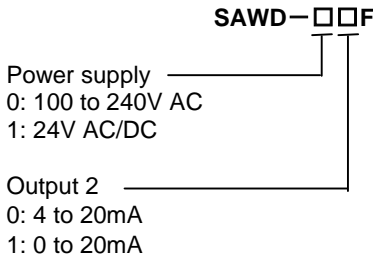
Current Loop Supply (with indication function)

Model: **SAWD-F**

■ Features

Usable with a Field communicator [Power for 2-wire transmitter built-in (output impedance: 240Ω)]

■ Model



■ How to order

Specify a model. (e.g.) SAWD-00F

Default value:

Input	4 to 20mA DC
Output 1	4 to 20mA DC
Output 2	4 to 20mA DC, 0 to 20mA DC

■ Input specifications

DC current

Input range	Shunt resistor
4 to 20mA DC	50Ω built-in

■ Output specifications

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

Output 1 (Universal)

DC current

Output range	Allowable load resistance	Zero adjustment range	Span adjustment range
0 to 10mA DC	1.2kΩ or less	0 to 5%	95 to 105%
0 to 12mA DC			
0 to 20mA DC	700Ω or less	-5 to 5%	
4 to 20mA DC			
1 to 5mA DC	2.4kΩ or less		

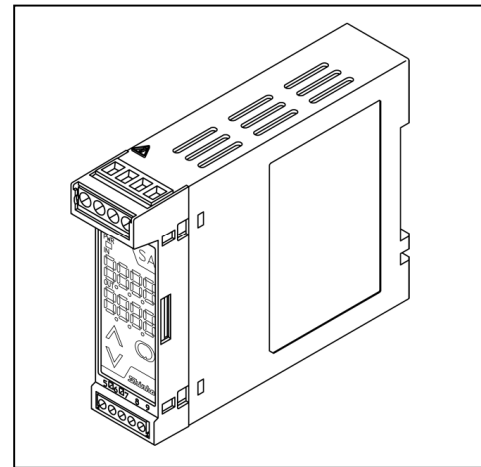
DC voltage

Output range	Allowable load resistance	Zero adjustment range	Span adjustment range
0 to 1V DC	100Ω or more	0 to 5%	95 to 105%
0 to 10V DC	1kΩ or more		
0 to 5V DC	500Ω or more	-5 to 5%	
1 to 5V DC			

Output 2 (Fixed range)

DC current

Output range	Allowable load resistance	Zero adjustment range	Span adjustment range
4 to 20mA DC	300Ω or less	-5 to 5%	95 to 105%
0 to 20mA DC	300Ω or less	0 to 5%	95 to 105%



■ Power for 2-wire transmitter

Output voltage : 24 to 28V DC
(When load current is 20mA)

Ripple voltage : Within 200mV DC
(When load current is 20mA)

Max load current : 25mA DC

Output impedance: 240Ω
(Usable with a Field communicator)

■ Performance

Accuracy:

- DC current Input: Within ±0.1%
- Output 1 : Within ±0.1%
- Output 2 : Within ±0.15%

Display accuracy: Within input accuracy ±1 digit

Response time: Output 1: 0.5 sec. (typical) (0 → 90%)

Output 2: 1.0 sec. (typical) (0 → 90%)

Temperature coefficient: Output 1: ±0.015%/°C

Output 2: ±0.015%/°C

Insulation resistance : 10MΩ or more, at 500V DC

(Input - Output 1 - Output 2 - Power)

Dielectric strength : 2.0kV AC for 1 minute

(Input - Output 1 - Power)

(Output 1 - Output 2 - Power)

1.35kV AC for 1 minute

(Input - Output 2)

Isolation: 3-port isolation (between Input - Output - Power)

Note: Input includes power supply for 2-wire transmission (terminals 5, 6, 7).

■ General structure

Case : Flame-resistant resin

Color : Light gray

Front panel : Membrane sheet

Setting : By the front keypad

Indication:

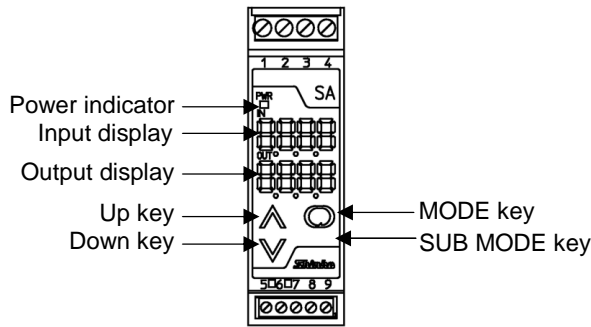
Power indicator : Green LED

Input display : 7-segment, Red LED display 4-digit,

Character size, 7.4 x 4.0mm (H x W)

Output display : 7-segment, Green LED display 4-digit,

Character size, 7.4 x 4.0mm (H x W)



■ Installation specifications

- 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 : Approx. 7VA
- Ambient temperature : -5 to 55°C
- Ambient humidity : 35 to 85%RH (non-condensing)
- Mounting : DIN rail mounting
- External dimensions : 22.5 (W) x 75 (H) x 100 (D)mm
- Weight : Approx. 120g

■ Attached functions

- Power failure countermeasure:
The data is backed up in non-volatile IC memory.
- Self diagnosis:
The CPU is monitored by a watchdog timer, and when an abnormal status is found on the CPU, the unit is switched to warm-up status after turning all outputs off.

■ Environmental specification

RoHS directive conformity

■ Settings

Function keys

- (1) Up key : Increases the numeric value.
- (2) Down key : Decreases the numeric value.
- (3) MODE key : Selects the setting mode.
- (4) SUB MODE key: Press with the MODE key to select the setting mode.

Setting items

Setting by pressing the MODE key for 3 seconds

- (1) Output 1 zero adjustment
- (2) Output 1 span adjustment
- (3) Output 2 zero adjustment
- (4) Output 2 span adjustment

Setting by the MODE key and SUB MODE key

- (1) Set value lock
- (2) Decimal point place
- (3) Output 0% value
- (4) Output 100% value
- (5) Filter time constant
- (6) Sensor correction
- (7) Output 1 output range
- (8) Output Normal/Reverse
- (9) Display selection
- (10) Indication time

■ Displays and indicators

- Power indicator : The green LED lights when the power to the instrument is turned on.
- Input display : Indicates the input value. Indication of -2000 or less: The minus (-) sign and input value light alternately.
Indication of 10000 or more: The lower 4 digits flash.

Under range : “- - - -” flashes on the Input display.
Over range : “- - - -” flashes on the Input display.
Warm-up indication: For approx. 3 seconds after power-on, the input type is indicated on the Input display, and output type is indicated on the Output display.

Output display: Indicates the output volume in percentage (%) form.

■ Ferrules

Terminals from 1 to 4

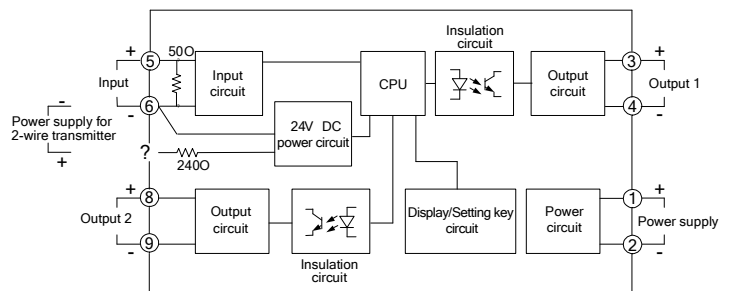
- Insulation sleeve attached (Phoenix Contact GMBH & CO.)
 - A10.25-8YE 0.2 – 0.25mm²
 - A10.34-8TQ 0.25 – 0.34mm²
 - A10.5-8WH 0.34 – 0.5mm²
 - A10.75-8GY 0.5 – 0.75mm²
 - A11.0-8RD 0.75 – 1.0mm²
 - A11.5-8BK 1.0 – 1.5mm²

- Crimping pliers (Phoenix Contact GMBH & CO.)
CRIMPFOX ZA3, CRIMPFOX UD6

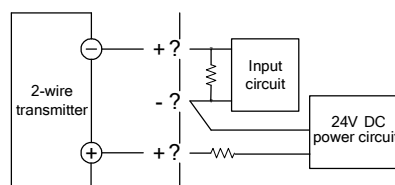
Terminals from 5 to 9

- Insulation sleeve attached (Phoenix Contact GMBH & CO.)
 - A10.25-8YE 0.2 – 0.25mm²
 - A10.34-8TQ 0.25 – 0.34mm²
 - A10.5-8WH 0.34 – 0.5mm²
- Crimping pliers (Phoenix Contact GMBH & CO.)
CRIMPFOX ZA3, CRIMPFOX UD6

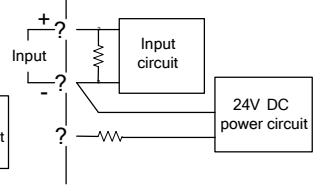
■ Circuit configuration and terminal arrangement



When using as a Current loop supply



When using as an Isolator



■ External dimensions (Scale: mm)

