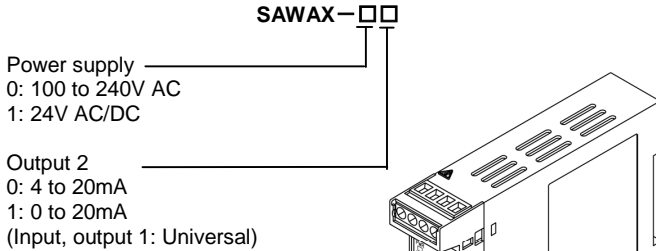


Split-Range Transmitter (with indication function)

Model: **SAWAX**

Model



How to order

Specify the model (e.g.) SAWAX-00
Default value

Input	4 to 20mA DC
Output 1	4 to 20mA DC
Output 2	Fixed range

Accessories (Sold separately)

Name	Model	Spec.
Shunt resistor	RES-S02-050	50Ω ±0.1%
	RES-S02-100	100Ω ±0.1%
	RES-S02-200	200Ω ±0.1%
	RES-S02-01K	1kΩ ±0.1%

Input specifications

DC current

Input range	Shunt resistor
4 to 20mA DC	50Ω
0 to 20mA DC	
0 to 16mA DC	
2 to 10mA DC	100Ω
0 to 10mA DC	
1 to 5mA DC	200Ω
0 to 1mA DC	1kΩ

Connect a shunt resistor (sold separately) between input terminals

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
4 to 20mA DC	700Ω or less	-5 to 5%	95 to 105%
0 to 20mA DC	700Ω or less	0 to 5%	95 to 105%
0 to 12mA DC	1.2kΩ or less	0 to 5%	95 to 105%
0 to 10mA DC	1.2kΩ or less	0 to 5%	95 to 105%
1 to 5mA DC	2.4kΩ or less	-5 to 5%	95 to 105%

DC voltage

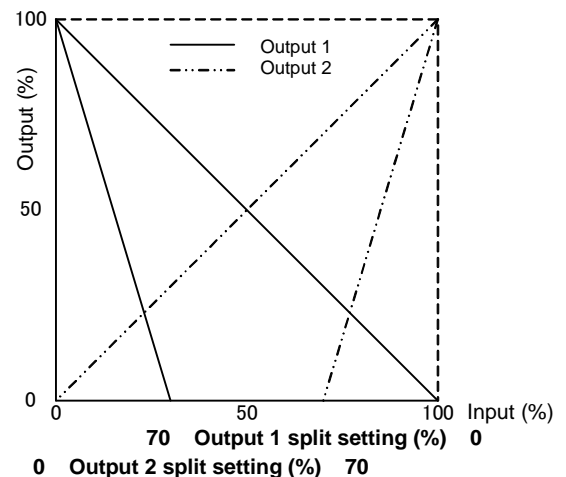
Output range	Allowable load resistance	Zero adjustment range	Span adjustment range
0 to 1V DC	100Ω or more	0 to 5%	95 to 105%
0 to 5V DC	500Ω or more	0 to 5%	95 to 105%
1 to 5V DC	500Ω or more	-5 to 5%	95 to 105%
0 to 10V DC	1kΩ or more	0 to 5%	95 to 105%

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%

X (split) characteristics for Input/Output

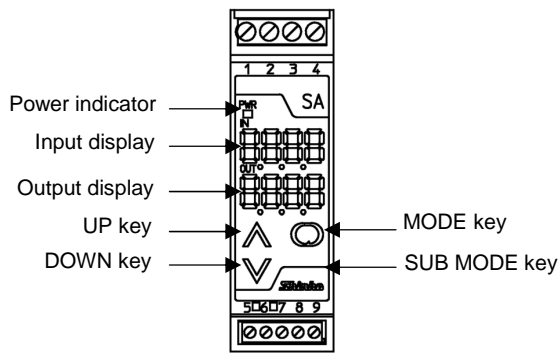


Performance

- Accuracy : Input: Within ±0.1%
Output 1: Within ±0.1%
Output 2: Within ±0.15%
- Indicating accuracy: Within input accuracy ±1 digit
- Response time : Output 1: 0.5sec. (typical) (0→90%)
Output 2: 1.0sec (typical) (0→90%)
- Temperature coefficient : Output 1: ±0.015%/°C
Output 2: ±0.015%/°C
- Insurance resistance: 10MΩ or more, at 500V DC
(Input - Output 1 - Output 2 - Power)
- Dielectric strength : 2.0kV AC for 1 minute
(Input - Output1 - Power,
Output 1 - Output 2 - Power)
1.35kV AC for 1 minute
(Between input - Output 2)
- Isolation: 3-port isolation (Between Input - Output - Power)

General structure

- Case : Flame-resistant resin Color: Light gray
- Front panel: Membrane sheet
- Setting : By the front keypad
- Indication : Input display
7-segment, Red LED display 4-digit
Character size: 7.4x4.0mm (H x W)
- Output display
7-segment, Green LED display 4-digit
Character size: 7.4x4.0mm (H x W)
- Power indication: Green LED



■ Installation specification

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. 6VA
 Ambient temperature: -5 to 55°C
 Ambient humidity: 35 to 85%RH (non-condensing)
 Weight: Approx. 120g
 Mounting: DIN rail mounting
 External dimensions: 22.5 (W) × 75 (H) × 100 (D) mm

■ Attached function

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 with turning all outputs off.

■ Environmental specification

RoHS directive compliance

■ 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) Input selection
- (3) Decimal point place
- (4) Output 0% value
- (5) Output 100% value
- (6) Filter time constant
- (7) Sensor correction
- (8) Output 1 output range
- (9) Output 1 low limit (outside rating)
- (10) Output 1 high limit (outside rating)
- (11) Output 2 low limit (outside rating)
- (12) Output 2 high limit (outside rating)
- (13) Display selection
- (14) Indication time
- (15) Output 1 split setting
- (16) Output 2 split setting

■ Display and indicators

Input display: Indicates the input value

- In case of DC input,
 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 the power to the instrument is turned on, the input type is indicated on the Input display, and Output1 type is indicated on the Output display.

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

Power indicator : The green LED lights when the power to the instrument is turned on.

■ Ferrules

Terminals from 1 to 4

Insulation sleeve attached (Phoenix Contact GMBH & CO.)

AI0.25-8YE	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
AI1.0-8RD	0.75 – 1.0mm ²
AI1.5-8BK	1.0 – 1.5mm ²

Crimping pliers (Phoenix Contact GMBH & CO.)

- CRIMPFOX ZA3
- CRIMPFOX UD6

Terminals from 5 to 9

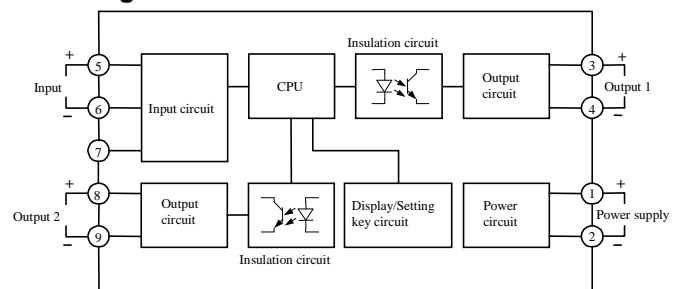
Insulation sleeve attached (Phoenix Contact GMBH & CO.)

AI0.25-8YE	0.2 – 0.25mm ²
AI0.34-8TQ	0.25 – 0.34mm ²
AI0.5-8WH	0.34 – 0.5mm ²

Crimping pliers (Phoenix Contact GMBH & CO.)

- CRIMPFOX ZA3
- CRIMPFOX UD6

■ Circuit configuration and terminal arrangement



■ External dimensions (Scale: mm)

