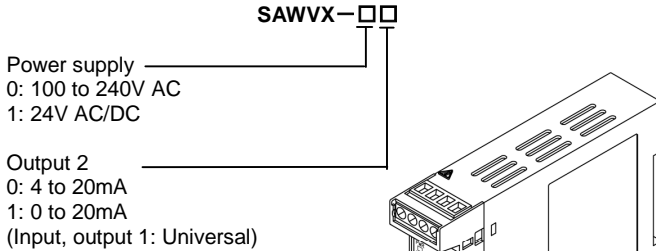


## Split-Range Transmitter (with indication function)

Model: **SAWVX**

### Model



### How to order

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

Input	0 to 10mV DC
Output 1	4 to 20mA DC
Output 2	Fixed range

### Input specifications

#### DC voltage

Input range	Input resistance	Allowable signal source resistance
0 to 10mV DC	1MΩ	20Ω or less
-10 to 10mV DC		40Ω or less
0 to 50mV DC		200Ω or less
0 to 60mV DC		
0 to 100mV DC		
0 to 1V DC		2kΩ or less

### 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

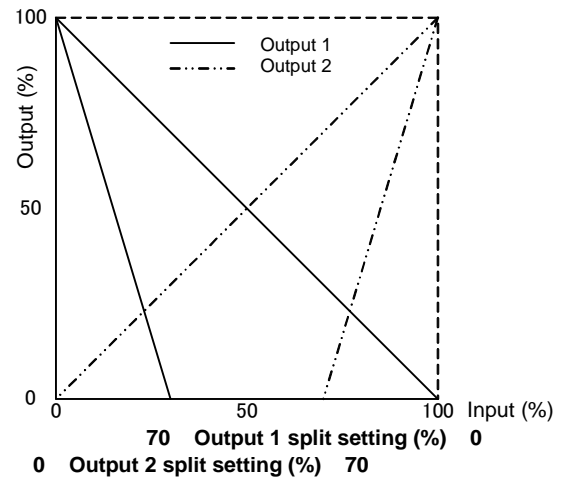
Output range	Allowable load resistance	Zero adjustment range	Span adjustment range
0 to 1V DC	100Ω or more	0 to 5%	95 to 105%
0 to 5V DC	500Ω or more	0 to 5%	95 to 105%
1 to 5V DC	500Ω or more	-5 to 5%	95 to 105%
0 to 10V DC	1kΩ or more	0 to 5%	95 to 105%

#### 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

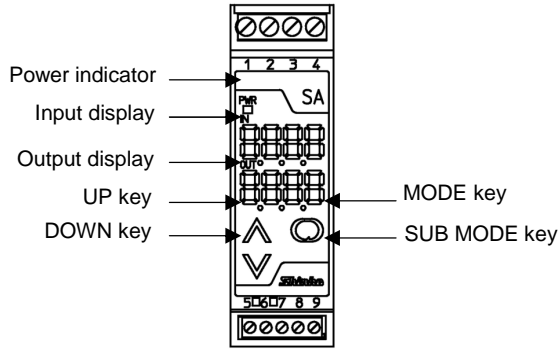


### Performance

- Accuracy : Input: Within  $\pm 0.1\%$   
Output 1: Within  $\pm 0.1\%$   
Output 2: Within  $\pm 0.15\%$
- Indicating accuracy: Within input accuracy  $\pm 1$  digit
- Response time : Output 1: 0.5sec. (typical) (0→90%)  
Output 2: 1.0sec (typical) (0→90%)
- Temperature coefficient : Output 1:  $\pm 0.015\%/^{\circ}\text{C}$   
Output 2:  $\pm 0.015\%/^{\circ}\text{C}$
- Insulation 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 <sup>2</sup>
AI0.34-8TQ	0.25 – 0.34mm <sup>2</sup>
AI0.5-8WH	0.34 – 0.5mm <sup>2</sup>
AI0.75-8GY	0.5 – 0.75mm <sup>2</sup>
AI1.0-8RD	0.75 – 1.0mm <sup>2</sup>
AI1.5-8BK	1.0 – 1.5mm <sup>2</sup>

Crimping pliers (Phoenix Contact GMBH & CO.)

CRIMPFOX ZA3  
 CRIMPFOX UD6

Terminals from 5 to 9

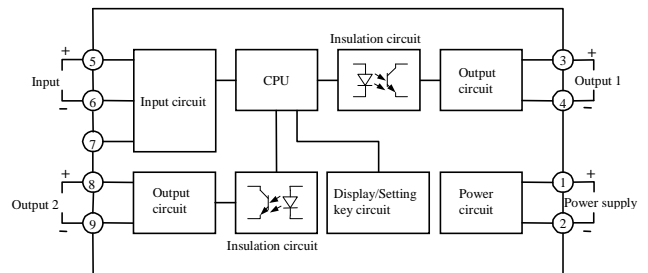
Insulation sleeve attached (Phoenix Contact GMBH & CO.)

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

Crimping pliers (Phoenix Contact GMBH & CO.)

CRIMPFOX ZA3  
 CRIMPFOX UD6

### ■ Circuit configuration and terminal arrangement



### ■ External dimensions (Scale: mm)

