

SA series

SPEC. SHEET

Linearizer (DC voltage input) (with indication function)

Model: **SAVP**

Model

SAVP - □

Power supply
0: 100 to 240V AC
1: 24V AC/DC

How to order

Specify a model. (e.g.) SAVP-00

Default value

Input	1 to 5V DC
Output	4 to 20mA DC

Accessories (sold separately)

Name	Model	Specification
Communication cable (Non-insulated)	CMS-001	Console software CD included

Input specifications

DC voltage

Input range	Input resistance	Allowable signal source resistance
-10 to 10mV DC	1MΩ	40Ω or less
0 to 10mV DC		20Ω or less
0 to 50mV DC		200Ω or less
0 to 60mV DC		
0 to 100mV DC		
0 to 1V DC		
0 to 5V DC		2kΩ or less
1 to 5V DC		
0 to 10V DC		

Output specifications

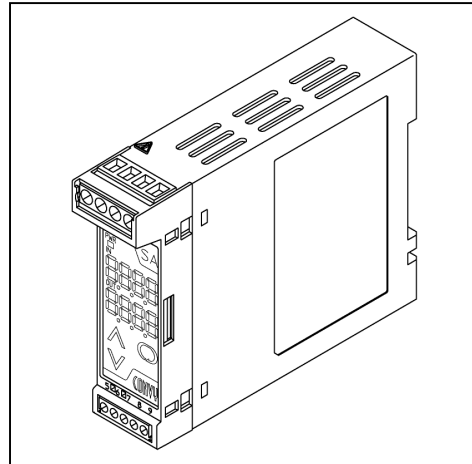
When the output range lower limit is zero, (even if zero adjustment results in a negative value), the output value will not be negative.

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			



Performance

Accuracy:

- Input: Within $\pm 0.1\%$
- Output: Within $\pm 0.1\%$

Display accuracy: Within input accuracy ± 1 digit
Response time: 0.5 sec. (typical) (0 \rightarrow 90%)

Temperature coefficient: $\pm 0.015\%/^{\circ}\text{C}$

Insulation resistance: 10MΩ or more, at 500V DC
(Input - Output - Power)

Dielectric strength: 2.0kV AC for 1 minute

(Input - Output - Power),

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

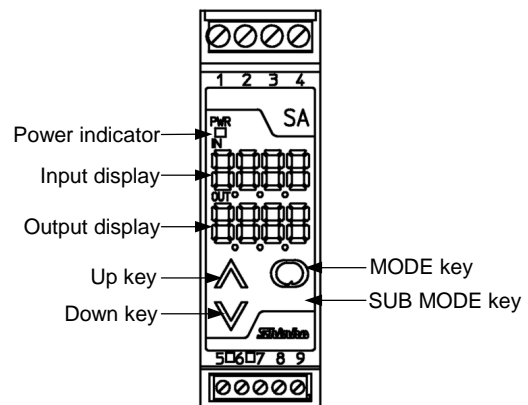
Indication : Input display:

7-segment, Red LED display 4-digit
Character size, 7.4 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)

Power indicator: Green LED



■ 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. 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) x 75 (H) x 100 (D)mm

■ 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 with turning all outputs off.

■ Environmental specification

RoHS directive compliance

■ Setting

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 zero adjustment
- (2) Output span adjustment

Setting by the MODE key and SUB MODE key

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

Setting by pressing the SUB MODE key for 5 seconds

- (1) Linearization Enabled/Disabled
- (2) Input 1 setting
- (3) Output 1 setting
- (4) Input 2 setting
- (5) Output 2 setting

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- (50) Input 25 setting
- (51) Output 25 setting

■ Displays and indicators

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 the power to the instrument is turned 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.

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.)

A10.25-8YE	0.2 – 0.25mm ²
A10.34-8TQ	0.25 – 0.34mm ²
A10.5-8WH	0.34 – 0.5mm ²
A10.75-8GY	0.5 – 0.75mm ²
A11.0-8RD	0.75 – 1.0mm ²
A11.5-8BK	1.0 – 1.5mm ²

Crimping pliers (Phoenix Contact GMBH & CO.)

CRIMPFOX ZA3
CRIMPFOX UD6

Terminals from 5 to 9

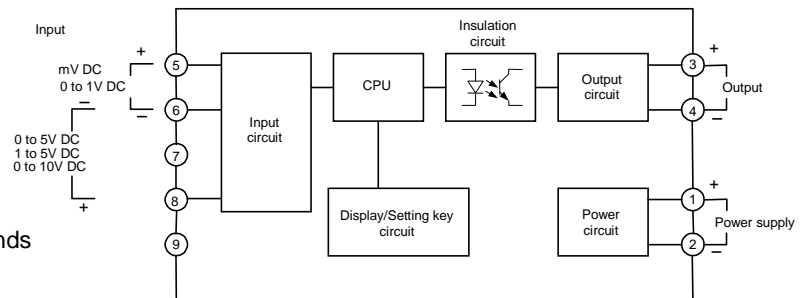
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CRIMPFOX ZA3
CRIMPFOX UD6

■ Circuit configuration and terminal arrangement



■ External dimensions (Scale: mm)

