

SIGNAL TRANSMITTER
(wide-output)

MODEL **SVB**

MODEL & SUFFIX CODE SELECTION

SVB-□□-□□

MODEL _____

INPUT _____

Current	Voltage
A : 4 – 20mA DC	1 : 0 – 10mV DC
A1 : 4 – 20mA DC *1	15 : 0 – 50mV DC
B : 2 – 10mA DC	16 : 0 – 60mV DC
C : 1 – 5mA DC	2 : 0 – 100mV DC
D : 0 – 20mA DC	3 : 0 – 1V DC
E : 0 – 16mA DC	4 : 0 – 10V DC
F : 0 – 10mA DC	5 : 0 – 5V DC
G : 0 – 1mA DC	6 : 1 – 5V DC
H : 10 – 50mA DC	4W : -10 – +10V DC
J : 0 – 10µA DC	5W : -5 – +5V DC
K : 0 – 100µA DC	0 : Specify voltage
GW : -1 – +1mA DC	
FW : -10 – +10mA DC	
Z : Specify current	

*1. 50Ω input resistance for Code A1

OUTPUT _____

Current	Voltage
A : 4 – 20mA DC	8 : 0 – 20V DC
B : 2 – 10mA DC	9 : 0 – 30V DC
C : 1 – 5mA DC	8W : -20 – +20V DC
D : 0 – 20mA DC	0 : Specify voltage
E : 0 – 16mA DC	
F : 0 – 10mA DC	
G : 0 – 1mA DC	
DW : -20 – +20mA DC	
FW : -10 – +10mA DC	
Z : Specify current	

POWER INPUT _____

AC Power	DC Power
M2 : 100 – 240V AC	R : 24V DC

OPTIONS _____

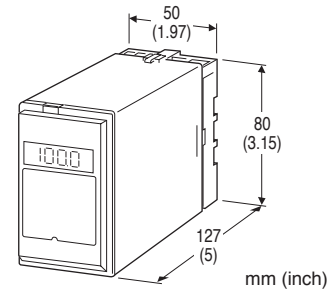
- /E : LCD meter (0.0 – 100.0%) *2
 - /K : Fast response
 - /CE : CE marking
- *2. CE marking not available

ORDERING INFORMATION

- Specify code number and variables.
- Code number (e.g. SVB-6A-M2/E/K)
 - Special input and output ranges (For codes Z & 0)

GENERAL SPECIFICATIONS

- Construction:** Plug-in
- Connection:** M3.5 screw terminals
- Housing material:** Flame-resistant resin (black)
- Isolation:** Input to output to power
- Overrange output:** Approx. -10 – +110% at 0 – 20V
- Front adjustments:** Zero and span; ±2%



Functions & Features

- Converts a DC input into a standard process signal
- Isolation up to 2000V AC
- Fast response type available
- LCD meter
- Max. 30V output available
- Load resistance 1500Ω (20mA output)
- High-density mounting
- CE marking

Typical Applications

- Isolation between control room and field instrumentation

INPUT & OUTPUT

■ INPUT

- **DC Current:** Shunt resistor attached to input terminals (0.5W)

Input resistance: For resistance values other than listed below, specify when ordering.

(Range) 4 – 20mA	: 250 (Ω)
	(50Ω for Code A1)
2 – 10mA	: 500
1 – 5mA	: 1000
0 – 20mA	: 50
0 – 16mA	: 62.5
0 – 10mA	: 100
0 – 1mA	: 1000
10 – 50mA	: 100
0 – 10µA	: 1000
0 – 100µA	: 1000
-1 – +1mA	: 1000
-10 – +10mA	: 100

- **DC Voltage:** -300 – +300V DC

Minimum span: 10mV

Zero suppression/elevation: Max. 1.5 times span

Input resistance:

(Range) 10 – 100mV	: ≥10k (Ω)
0.1 – 1V	: ≥100k
≥1V	: ≥1M

■ OUTPUT

• **DC Current:** -20 – +20mA DC

Minimum span: 1mA

Zero suppression/elevation: Max. 1.5 times span

Load resistance: Output drive 30V max.

	20V max. (0% output = negative value)
(Range) 4 – 20mA	: 750 – 1500 (Ω)
2 – 10mA	: 1500 – 3000
1 – 5mA	: 3000 – 6000
0 – 20mA	: 750 – 1500
0 – 16mA	: 935 – 1875
0 – 10mA	: 1500 – 3000
0 – 1mA	: 15k – 30k
-20 – +20mA	: 500 – 1000
-10 – +10mA	: 1000 – 2000

Caution: The load resistance must be within the above range for adequate operation.

• **DC Voltage:** -20 – +30V DC*

Minimum span: 10V

Zero suppression/elevation: Max. 1.5 times span

Load resistance: Output drive 10mA max.

(Range) 0 – 20V	: ≥2000 (Ω)
0 – 30V	: ≥3000
-20 – +20V	: ≥2000

*The 0 – 100% output range values within -10 – +12V range are not available.

INSTALLATION

Power input

AC: Operational voltage range 85 – 264V
47 – 66 Hz
approx. 5VA at 100V
approx. 6VA at 200V
approx. 7VA at 264V

DC: Operational voltage range 24V ±10%
approx. 3W; ripple 10% p-p max.

Operating temperature: -5 to +60°C (23 to 140°F)

Operating humidity: 30 to 90% RH (non-condensing)

Mounting: Surface or DIN rail

Dimensions: W50×H80×D127 mm (1.97"×3.15"×5")

See General Spec. Sheet Figure A-1.

Weight: 400 g (0.88 lbs)

Terminal assignment: See General Spec. Sheet Figure B-2.

PERFORMANCE in percentage of span

Accuracy: ±0.1%

Display accuracy: ± (0.1% of FS + 1 digit)

Temp. coefficient: ±0.015%/°C (± 0.008%/°F)

Response time: ≤0.5 sec. (0 – 90%)
≤25 msec. with option /K

Line voltage effect: ±0.1% over voltage range

Insulation resistance: ≥100MΩ with 500V DC

Dielectric strength: 2000V AC @1 minute
(input to output to power to ground)

STANDARDS & APPROVALS

CE conformity: EMC Directive (2004/108/EC)

EN 61000-6-4 (EMI)

EN 61000-6-2 (EMS)

Low Voltage Directive (2006/95/EC)

EN 61010-1

Installation Category II

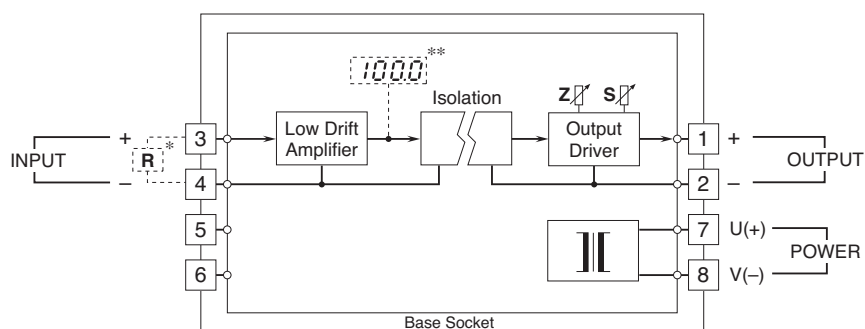
Pollution Degree 2

Max. operating voltage 300V

Input or output to power: Reinforced insulation

Input to output: Basic insulation

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*Input shunt resistor attached for current input.

**Option /E