



VOLTAGE | SENSOR

- INPUT SIGNAL (DC 0~99mV, DC 0~199V)
- % DETECTOR (AC 100~120V)

VOLTAGE SENSOR

SBV SERIES

GENERAL INFORMATION

The voltage sensor (SBV SERIES) is slim type sensor which has built in microm, and can be applied to marine equipments and industrial plants for the purpose of accurate voltage detection. Voltage setting is done by digital switch, so it is more convenient to set and more accurate to control voltage than VR adjusting sensor. And also it operates accurately in shocks and temperature variations. It is formed into two types of DIN and JIS. So, user can simply select one of both type.

ORDERING INFORMATION

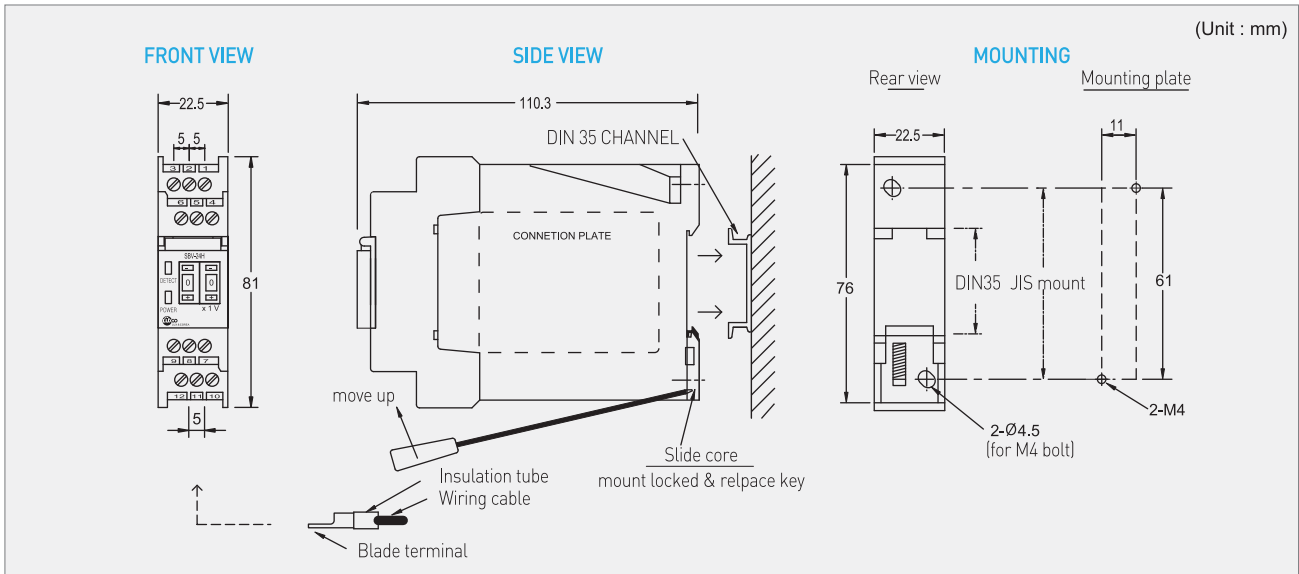
SBV - 24H

24A	Input signal rating : AC 0~120V
24L	Input signal rating : DC 0~99mV
24H	Input signal rating : DC 0~99V
110H	Input signal rating : DC 100~199V

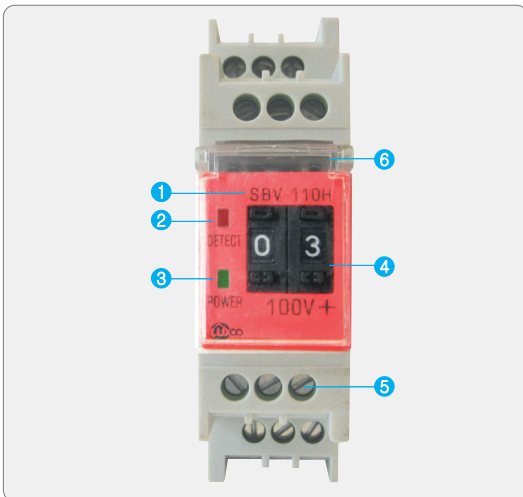
GENERAL SPECIFICATIONS

INPUT POWER SOURCE	RATING	DC24
	VARIATION	80~120% of rating
	CONSUMPTION	1.0W (max.)
	SURGE TRANSIENT	2KV 50uVs line / earth : 1KV 50uVs line / line (IEC1000-4-5 / 1995)
VOLTAGE SETTING SPECIFICATIONS	SETTING ACCURACY	Less than $\pm 0.1V$ (SBV-24H) / Less than $\pm 0.1mV$ (SBV-24L) Less than $\pm 0.5V$ (SBV-110H)
	RESET DEAD BAND	-0.3V or less of the set value (SBV-24H) -0.3mV or less of the set value (SBV-24L)
	SETTING METHOD	Voltage adjusting : Value (00~99) can be set by push digital switch. And Value (+0.5) can be set by connecting T.B #8 to #9.
CONTACT CAPACITY	SWITCHING VOLTAGE	24V DC 8.0A (resistive) 3.2A (inductive p.f=0.4) 250V AC 8.0A (resistive) 3.2A (inductive p.f=0.4)
	MECHANICAL LIFE	1000 x 10 ⁴ cycles
	ELECTRICAL LIFE	10 x 10 ⁴ cycles
INSULATION RESISTANCE		Above 100 Mohm between live parts and enclosure. (Test voltage : 500V DC)
DIELECTRIC STRENGTH		2.5kV between power input circuit and enclosure for 1min.
ENCLOSURE	MATERIAL	PC(polycarbonate) - Flame retardant (UL94 V-0) - TRIREX3025G10 / Glass fiber reinforced
	DIELECTRIC STRENGTH	31 KV /mm
EXTERNAL CONNECTION T.B	MATERIAL	Terminal : CuZn, Insulating material : PA
	SCREW SIZE	M3
	SPACING	5.0mm
AMBIENT CONDITIONS	AMBIENT TEMPERATURE RANGE	-10°C ~ +55°C
	STORAGE TEMPERATURE RANGE	-25°C ~ +80°C
	HUMIDITY	45 ~ 85% R.H
VIBRATION TEST		5~25Hz (displacement : $\pm 1.6mm$) 25~100Hz (acceleration : $\pm 4G(39ms^{-2})$)
SHOCK RESISTANCE		10G (KS M3501 / ASTM D256)

DIMENSIONS, MOUNTING AND REPLACEMENT

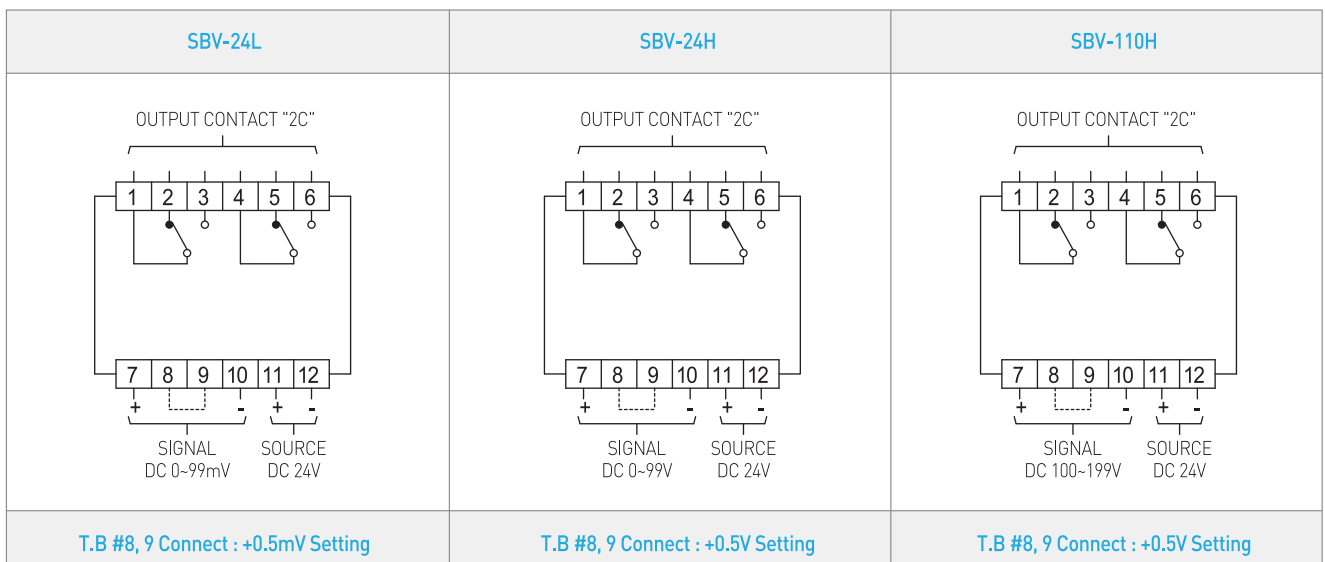


OUTLINE DESCRIPTIONS



- 1 Model No. ----- SBV-24H / 24L / 110H
- 2 Detect on lamp ----- LED (light up in Red)
- 3 Source lamp ----- LED (light up in Green)
- 4 Voltage setting switch ----- digital push-switch
(+) increase, (-) decrease
- 5 External T.B ----- M3.5 screw
- 6 Protection cover ----- PC (clear)

CONNECTION DIAGRAM



VOLTAGE SENSOR

GENERAL INFORMATION

The voltage sensor (SBV-24A) is interlock device to supply stable power and it can be applied to accurate voltage detection machinery of marine and industrial plant.

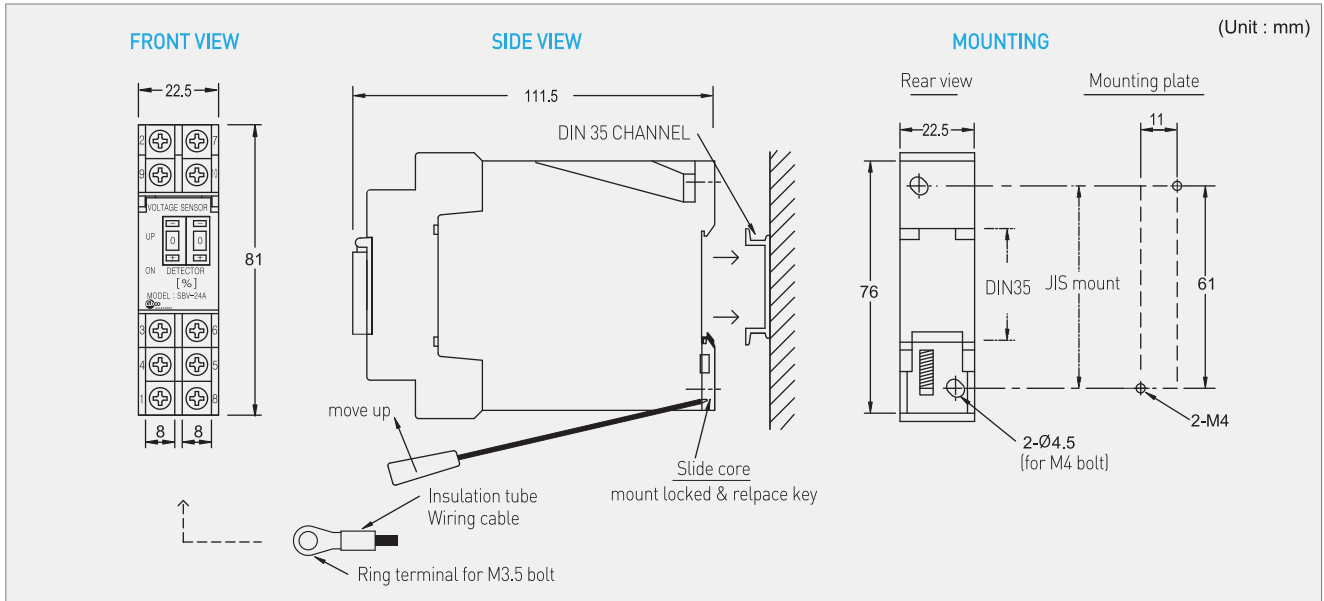
This product senses power voltage to control main switchgear and when sensing voltage is over set value, it sets main switchgear to switch on. Setting value of sensing voltage can be presetted by digital switch which is more accurate and easier than VR applied analog types, so the detection is not affected from vibration.

It is formed into two type of DIN and JIS. So, users can simply select one of both types.

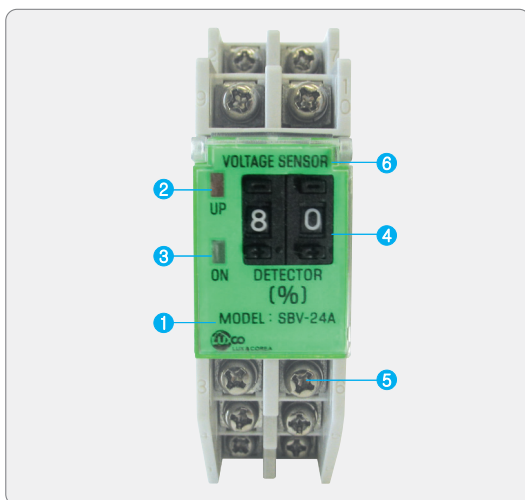
GENERAL SPECIFICATIONS

INPUT POWER SOURCE	RATING	AC 110V or AC 220V
	VARIATION	±20% of rating
	CONSUMPTION	AC 110V / 220V 3.0W (max.)
	SURGE TRANSIENT	2KV 50uVs line / earth : 1KV 50uVs line / line (IEC 100-4-5 / 1995)
VOLTAGE SETTING SPECIFICATIONS	ACCURACY	Less than ±1%
	PRESET METHOD	Range : 4 modes are selectable by 2DIP switch. Voltage ranges are as follows. (AC 100V, AC 110V, AC 115V, AC 120V) Adjusting : Value (60~99%) can be set by two digital switch on front side.
CONTACT CAPACITY	SWITCHING VOLTAGE	24V DC 8.0A [resistive] 3.2A [inductive p.f=0.4] 250V AC 8.0A [resistive] 3.2A [inductive p.f=0.4]
	MECHANICAL LIFE	1000 x 10 ⁴ cycles
	ELECTRICAL LIFE	10 x 10 ⁴ cycles
INSULATION RESISTANCE		Above 100 Mohm between live parts and enclosure. (Test voltage : 500V DC)
DIELECTRIC STRENGTH		2.5KV between live parts and enclosure for 1min.
ENCLOSURE	MATERIAL	PC(polycarbonate) - Flame retardant (UL94 V-0) - TRIREX3025G10 / Glass fiber reinforced
	DIELECTRIC STRENGTH	31 KV/mm
EXTERNAL CONNECTION T.B	MATERIAL	Terminal : Brass (Zn plating), Bolt : Steel (Ni plating)
	SCREW SIZE	M3.5
	SPACING	10mm
AMBIENT CONDITIONS	AMBIENT TEMPERATURE RANGE	-10°C ~ +55°C
	STORAGE TEMPERATURE RANGE	-25°C ~ +80°C
	HUMIDITY	45 ~ 85% R,H
VIBRATION TEST		5~25Hz [displacement : ±1.6mm] 25~100Hz [acceleration : ±4G(39ms ⁻²)]
SHOCK RESISTANCE		10G [KS M3501 / ASTM D265]

DIMENSIONS, MOUNTING AND REPLACEMENT



DESCRIPTIONS

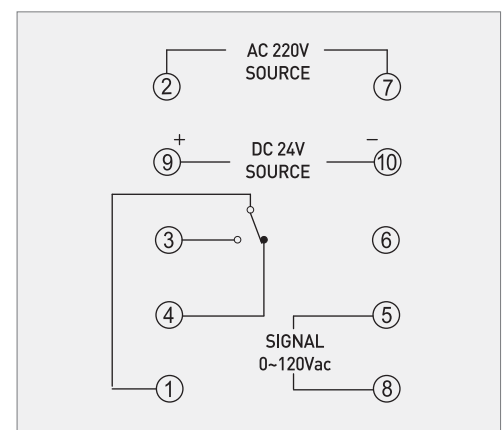


- 1 Model No. ----- SBV-24A
- 2 Detect on lamp ----- LED (light up in Red)
- 3 Source lamp ----- LED (light up in Green)
- 4 Voltage setting switch ----- digital push-switch
 (+) increase, (-) decrease
- 5 External T.B ----- M3.5 screw
- 6 Protection cover ----- PC (clear)

INPUT SIGNAL RANGE SETTING (4 MODE BY DIP SWITCH)

■ ON □ OFF 	SIGNAL INPUT RANGE		RANGE
	POSITION		
	1	2	
			100Vac
			110Vac
			115Vac
			120Vac

CONNECTION DIAGRAM



To supply signal input voltage, please use P.T. Otherwise, it can cause serious damage to inner components.