

Product Description : Split core type AC/DC current sensor**Model Number : SWL-50DC**

1. Type: Split core type AC/DC current sensors.
2. The product is conformed to RoHS2 Directive.
3. Specifications electrical characteristics

Item	Description			Note
1) Rated primary current (F.S)	5 A AC/DC			
2) Applicable frequency	±2.5A~±50 A AC/DC			
3) Maximum allowable current	75 A AC/DC			
4) Output voltage	±4 V (F.S)			Primary current: 50 A AC/DC TA=25°C
5) Applicable frequency	DC to 10 kHz			
6) Applicable wire diameter	Φ14.5 mm (Maximum)			
7) Accuracy	±1.0% (F.S)			DC 50A ,AC 50A(50/60Hz) TA=25°C
8) Supply voltage	± 12 V ± 5 %			Split power supply
9) Consumption current	Approx. 7 mA			
10) Reaction time	3 μs			
11) Electrical offset voltage	< ± 30 mV			
12) Output rms noise voltage	< 20 mVP-P			
13) Hysteresis	< ± 15 mV			
14) Temperature coefficient	± 0.1 %/°C			
15) Rated voltage	DC1000V or less, AC500V or less			Covered electric wire
16) Withstanding voltage	AC2000V / 1minute			Between the outer case and the output terminals
17) Insulation resistance	DC500V / 100MΩ or more			
18) Operating temperature / humidity range	-10°C ~ 60°C 80 % RH or less			Without condensation
19) Material of the core	Ferrite core			
20) Allowable attaching/ detaching count	Approx. 100 times			
21) Output wire	3-core of shielded cable	Red Black White Green	:+12V :-12V :Vout :COM	Length: approx. 330 mm solder finishing
22) Mass	Approx. 65 g			

Notes:

- 1) Recommended input impedance : 100kΩ or more
- 2) Positive (+) output corresponds to the arrow mark (→).

4. Marking

4.1 Marking specifications

The type (part number) and production lot number are printed on the outer case surface with a laser.

4.2 Lot No. indication

The production lot No. consists of 4 numeric digits, the top 2 digits represent the year of production, and the bottom 2 digits represent the month of production.

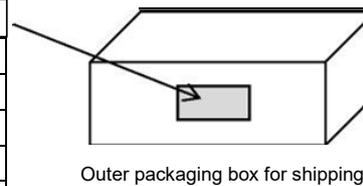
(Ex.) "2209" means that the unit was produced in September 2022.

SWL-50DC
1682111812
LOT NO. 2209
+→
APSP

5. Packaging / packing

- 1) Bubble wrapped, then fixed with adhesive tapes.
- 2) Using cushioning materials, and stored it in the outer packaging box.
- 3) The product name, quantity, production lot number, control number and "RoHS compliant" are indicated on the outer box.

Example of attached paper	
Part number	SWL-50DC
quantity	
Lot-No.	XXXX
Control-No.	220826
Compliance	RoHS2

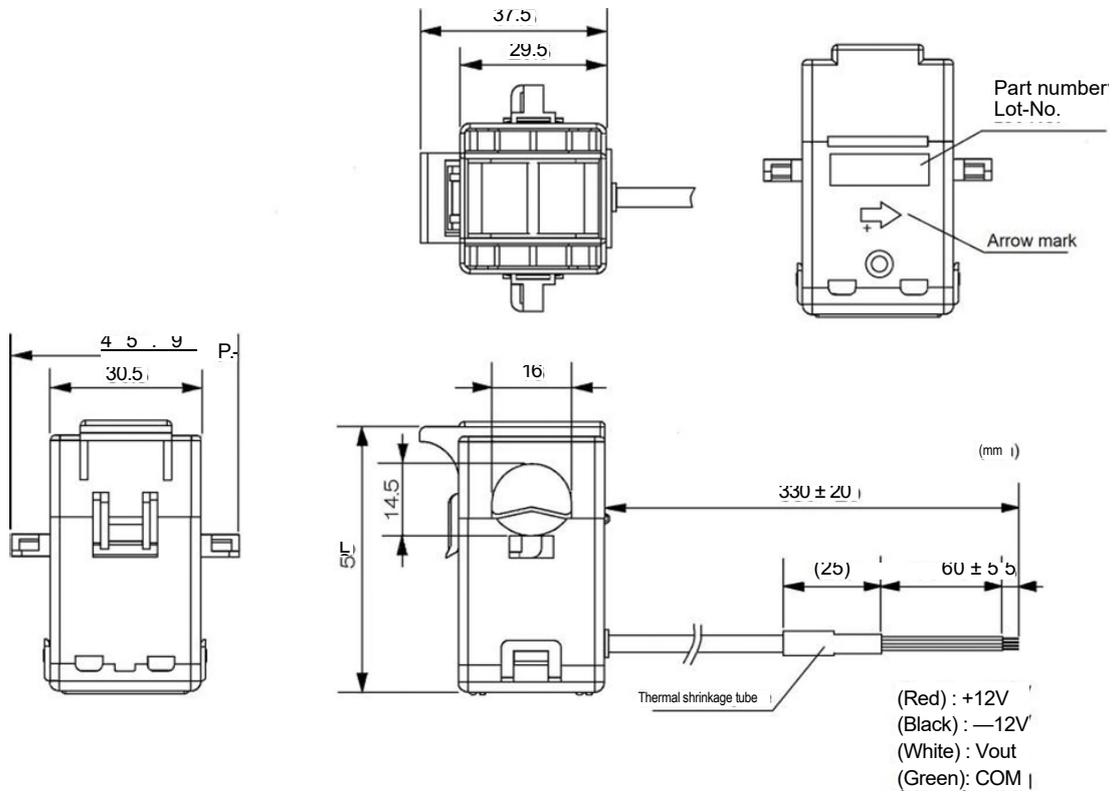


※Smaller quantities than standard package unit will be shipped differently.

6. Precautions for use

- 1) It is assumed that this product is installed in an environment where general electronic equipment is installed. Since the product is not designed for use in special environments as listed below, the user is responsible for ensuring sufficient safety and reliability when using it in such special environments.
 - Installation location
 - There should be no abnormal vibration, no impact.
 - Gases containing hazardous smoke, salt, sulfur, ammonia, etc., excessive humidity, water droplets or steam, excessive dust, fine powder, explosive gas and wind and rain, ultraviolet rays etc. shall not be present.
- 2) Avoid storage in a hot and humid environment.
- 3) Never disassemble or modify this product.
- 4) Do not apply strong vibrations or shocks to the product or the packing box.
 - Especially products that employ ferrite cores are easy to be damaged.
- 5) The characteristics (rated output, responsiveness, etc.) may vary depending on the primary conductor position of the opening. Our characteristics are specified when the primary conductor is located at the center of the opening.
- 6) The specified accuracy may not be met due to magnetic fields or noises generated by other devices.
- 7) Under circuit conditions different from the specification sheet, some characteristics (Output voltage, Accuracy, etc.) and their deviations may fluctuate. In addition, the specification sheet does not cover all items of the characteristic fluctuations.
- 8) The output voltage have some ripples, so add external capacitors on the circuits as needed.
- 9) The sensor employs parts with polarity. Incorrect power source may cause damage of the product.
- 10) Long time use with an input current exceeding the rated current may cause damage of the internal circuit.
- 11) It is recommended to perform offset voltage correction each time the product is started up using the output voltage at the time as a reference.
 - In addition, when continuous operation is performed for several months, or when large temperature / humidity fluctuations are expected in the operating environment, it is recommended to perform periodic zero point correction during idling time (without the primary current).
- 12) For safe installation
 - Use only coated wire as a primary conductor.
 - When opening the clamp, unlock the snap lock carefully not to be broken.
 - When closing the clamp, make sure that the snap lock is fixed completely for accurate output voltage.
 - Do not apply any shocks or make adhesion of any foreign objects such as dust on the fitting surface of the ferrite cores, otherwise the sensor may be damaged or make inaccurate output voltage.
 - Do not install the sensor with the connecting cables tensioned, otherwise the sensor may be damaged or make inaccurate output voltage.

7. External view :SWL-50DC



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