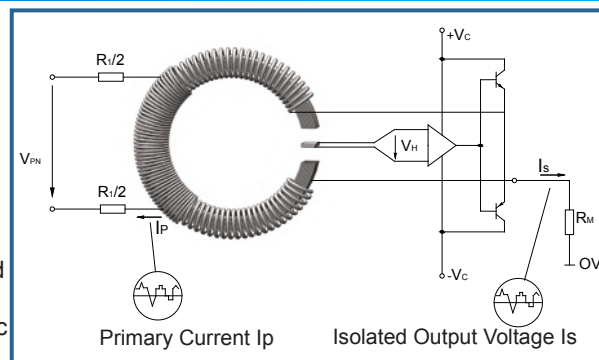


Hall voltage sensors

Working Principle

Hall voltage sensor uses hall effect principle to restrict the primary current to certain level by external or internal resistor, usually mA grade. This current passes through winding coil, and the hall unit in the air gap will test the magnetic field produced by primary current, and induct the corresponding electromotive force. This electromotive force feeds back to compensating coil via circuit adjustment, the magnetic flux produced by compensating coil and the magnetic flux produced by primary current are equal in size and opposite in direction, so the magnetic flux in coil is zero. Actually, the hall voltage sensor uses the same technology with the magnetic balance close loop hall current sensor.



Features

Hall voltage sensor can measure the direct voltage, alternating voltage and voltage of hybrid waveforms based on the hall close loop zero flux principle. It needs to connect a external or internal resistor in the primary, the resistance value and power of the resistor will increase along with the increased measuring voltage range.

Installation Method

1. PCB installation
2. Screw fixed and 35mm standard guideway mounting.

Application

The hall voltage sensor is widely used because it can measure both alternating current and direct current. In today's application of high power devices, hall voltage sensors and hall current sensors together with switching power devices like TGBT make up the core of power electronics, and are widely used in UPS, wind power, rail, photovoltaics, rectification, electroplating and other fields.

Part No.	Rated Input V_{PN} (V)	Measuring Range V_P (V)	Rated Output	Supply Voltage V_C (V)	Frequency (KHZ)	Accuracy $\pm a$ 25°C (%)	Operating Temperature T_a (°C)	Isolation Voltage V_i (KV)	Responding Time (μs)	Window (mm)	Connection Figure NO.	Profile NO.
HCV-25E	10mA	14mA	25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	2.5	< 10	PCB	8	3
HCV-25U1	10mA	14mA	25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	2.5	20~100	Terminal	8	31
HCV-50U1	10mA	20mA	50mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	8	31
HCV-25U2	10mA	14mA	25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	2.5	20~100	Terminal	8	32
HCV-50U2	10mA	20mA	50mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	8	32
HCV-100U2	20mA	40mA	100mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	8	32
HCV-25U3	10mA	14mA	25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	2.5	20~100	Terminal	8	33
HCV-50U3	10mA	20mA	50mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	8	33
HCV-100U3	20mA	40mA	100mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	8	33
HCV-25U5	10mA	14mA	25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	2.5	20~100	Terminal	8	35
HCV-50U5	10mA	20mA	50mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	5	20~100	Terminal	8	35
HCV-25U6	10mA	14mA	25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	2.5	20~100	Terminal	8	36
HCV-50U6	10mA	20mA	50mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	5	20~100	Terminal	8	36



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Hall voltage sensor

Current and Voltage
Sensor

Part No.	Rated Input V_{PN} (V)	Measuring Range V_P (V)	Rated Output	Supply Voltage V_C (V)	Frequency (KHZ)	Accuracy $T_a=25^{\circ}\text{C}$ (%)	Operating Temperature T_a ($^{\circ}\text{C}$)	Isolation Voltage V_i (KV)	Responding Time (μs)	Window (mm)	Connection Figure NO.	Profile NO.
HVS-50U1	50V	75V	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	9/10	31
HVS-100U1	100V	150V	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	9/10	31
HVS-200U1	200V	300V	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	9/10	31
HVS-300U1	300V	450V	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	9/10	31
HVS-500U1	500V	750V	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	9/10	31
HVS-800U2	800V	1200V	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	10	40~200	Terminal	9/10	32
HVS-1000U2	1KV	1.5KV	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	10	40~200	Terminal	9/10	32
HVS-1500U2	1.5KV	2.2KV	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	10	40~200	Terminal	9/10	32
HVS-2000U2	2KV	3KV	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	10	40~200	Terminal	9/10	32
HVS-2500U2	2.5KV	3.7KV	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	10	40~200	Terminal	9/10	32
HVS-3000U2	3KV	4.5KV	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	10	40~200	Terminal	9/10	32
HVS-2500U3	2.5KV	3.7KV	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	12	40~200	Terminal	9/10	33
HVS-3000U3	3KV	4.5KV	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	12	40~200	Terminal	9/10	33
HVS-3500U3	3.5KV	5.2KV	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	12	40~200	Terminal	9/10	33
HVS-4000U3	4KV	6KV	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	12	40~200	Terminal	9/10	33
HVS-5000U3	5KV	7.5KV	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	12	40~200	Terminal	9/10	33
HVS-6000U3	6KV	10KV	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	12	40~200	Terminal	9/10	33
HVS-8000U3	8KV	10KV	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	12	40~200	Terminal	9/10	33
HVS-50U4	50V	75V	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	9/10	34
HVS-200U4	200V	300V	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	9/10	34
HVS-400U4	400V	600V	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	9/10	34
HVS-600U4	600V	900V	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	9/10	34
HVS-50U6	50V	75V	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	9/10	36
HVS-200U6	200V	300V	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	9/10	36
HVS-400U6	400V	600V	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	9/10	36
HVS-600U6	600V	900V	5V/25mA	$\pm 12 \sim 15$	DC-20	0.5	-25...+85	6	20~100	Terminal	9/10	36



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Close Loop
Open Loop
Hall Current Sensors

Hall Voltage Sensors

AC
DC
Current Transducer

AC
DC
Voltage Transducer

DC leakage current sensor

DC leakage current Transducer

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