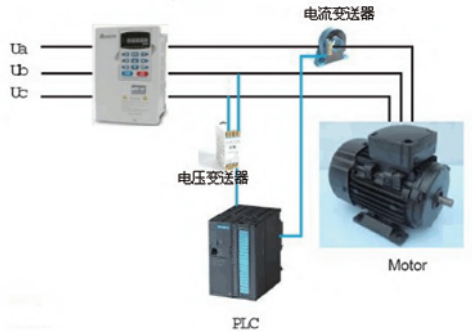
Voltage Transducer

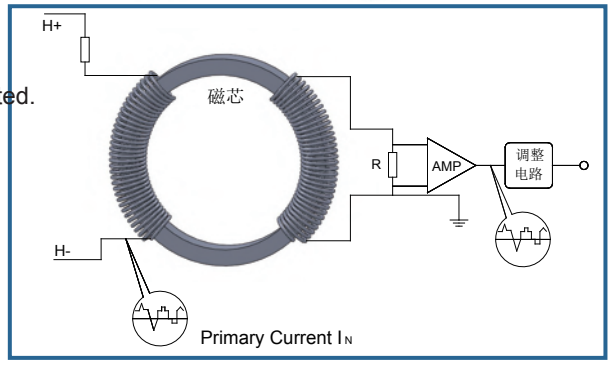
Concepts

Sensor is a kind of device which converts the nonelectric physical signal to electrical signal, transducer is a kind of device which converts the nonstandard electrical signal to standard signal. When the output of sensor is regulated standard signal, we will call it transducer. Voltage transducer is a kind of device which converts the measured voltage, DC voltage, pulse voltage to DC voltage or DC current in proportion and isolates the output.



Common Parameters

- Measuring Frequency: DC; 50Hz(400Hz)
- Responding time: <100mS (DC); <350mS(AC)
- Linearity: 0.5%
- No measuring insertion loss
- Measure AC or DC voltage, output standard DC signal
- The primary voltage and secondary output signal are highly isolated.
- Low power consumption, single power supply is ok, and the power supply range is wide.



Working Principle

When the measured current In pass through the conductor, a magnetic field will be produced around the conductor which is in proportion to the current. The secondary coil will measure this magnetic field and the output voltage VH will be in proportion to the measured current In. Through electronic circuit amplification and deforming, and calibrate the output voltage to the required standard signal Vm, then it will reflect the effective value of primary current accurately.

Application

Our voltage transducers are widely used in electricity, remote control, instruments, medical devices, industrial automation and other fields which need electricity isolation and measurement.

AC Voltage Transducer

Part No.	Norminal Voltage (v)	Measuring Range (v)	Rated Output	Supply Voltage Vc (V)	Frequency (HZ)	Accuracy Ta= 25°C (%)	Opearting Temperature Ta (°C)	Isolation Voltage Vi (KV)	Responding Time (ms)	Window (mm)	Connection Figure NO.	Profile NO.
HUT-50U1	50	60	#	±12	50(400)	0.5	-25...+85	6	< 350	Terminal	10	31
HUT-100U1	100	120	#	±12	50(400)	0.5	-25...+85	6	< 350	Terminal	10	31
HUT-200U1	200	240	#	±12	50(400)	0.5	-25...+85	6	< 350	Terminal	10	31
HUT-400U1	400	480	#	±12	50(400)	0.5	-25...+85	6	< 350	Terminal	10	31
HUT-600U1	600	720	#	±12	50(400)	0.5	-25...+85	6	< 350	Terminal	10	31
HUT-1000U2	1000	1200	#	±12	50(400)	0.5	-25...+85	10	< 350	Terminal	10	32
HUT-2000U2	2000	2400	#	±12	50(400)	0.5	-25...+85	10	< 350	Terminal	10	32
HUT-3000U2	3000	3600	#	±12	50(400)	0.5	-25...+85	10	< 350	Terminal	10	32
HUT-4000U3	4000	4800	#	±12	50(400)	0.5	-25...+85	10	< 350	Terminal	10	33
HUT-6000U3	6000	7200	#	±12	50(400)	0.5	-25...+85	10	< 350	Terminal	10	33

(1)#is rated output, there are six kinds, A0, A1, V0, V1, V2, V3, the corresponding output value is as below chart.

(2) Both double power supply (±12V...±18V) and single power supply (+12V...+24V) are ok for the product. Add S in the part No. to represent single power supply pattern. For example, HUT-50U1S/A0, which means the product shape is U1, rated input is 0~50A, rated output is 0~20mA, with single power supply +12…24V.

#	A0	A1	V0	V1	V2	V3
Output	0-20mA	4-20mA	0-5V	1-5V	0-10V	1-10V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AC Voltage Transducer

Part No.	Rated Voltage (v)	Measuring Range (v)	Rated Output	Supply Voltage Vc (V)	Frequency (HZ)	Accuracy Ta= 25°C (%)	Opearting Temperature Ta (°C)	Isolation Voltage Vi (KV)	Responding Time (ms)	Window (mm)	Connection Figure NO.	Profile NO.
HUT-8000U3	8000	9600	#	±12	50(400)	0.5	-25...+85	10	< 350	Terminal	10	33
HUT-50U4	50	60	#	±12	50(400)	0.5	-25...+85	2.5	< 350	Terminal	10	34
HUT-100U4	100	120	#	±12	50(400)	0.5	-25...+85	2.5	< 350	Terminal	10	34
HUT-200U4	200	240	#	±12	50(400)	0.5	-25...+85	2.5	< 350	Terminal	10	34
HUT-400U4	400	480	#	±12	50(400)	0.5	-25...+85	2.5	< 350	Terminal	10	34
HUT-600U4	600	720	#	±12	50(400)	0.5	-25...+85	2.5	< 350	Terminal	10	34
HUT-50U6	50	60	#	±12	50(400)	0.5	-25...+85	2.5	< 350	Terminal	10	36
HUT-100U6	100	120	#	±12	50(400)	0.5	-25...+85	2.5	< 350	Terminal	10	36
HUT-200U6	200	240	#	±12	50(400)	0.5	-25...+85	2.5	< 350	Terminal	10	36
HUT-400U6	400	480	#	±12	50(400)	0.5	-25...+85	2.5	< 350	Terminal	10	36
HUT-600U6	600	720	#	±12	50(400)	0.5	-25...+85	2.5	< 350	Terminal	10	36

DC Voltage Transducer

Part No.	Rated Voltage (V)	Measuring Range (V)	Rated Output	Supply Voltage Vc (V)	Frequency (HZ)	Accuracy Ta= 25°C (%)	Opearting Temperature Ta (°C)	Isolation Voltage Vi (KV)	Responding Time (ms)	Window (mm)	Connection Figure NO.	Profile NO.
HVT-50U1	50	60	#	±12	DC	1.0	-25...+85	6	< 350	Terminal	10	31
HVT-100U1	100	120	#	±12	DC	1.0	-25...+85	6	< 350	Terminal	10	31
HVT-200U1	200	240	#	±12	DC	1.0	-25...+85	6	< 350	Terminal	10	31
HVT-400U1	400	480	#	±12	DC	1.0	-25...+85	6	< 350	Terminal	10	31
HVT-600U1	600	720	#	±12	DC	1.0	-25...+85	6	< 350	Terminal	10	31
HVT-1000U2	1000	1200	#	±12	DC	1.0	-25...+85	10	< 350	Terminal	10	32
HVT-2000U2	2000	2400	#	±12	DC	1.0	-25...+85	10	< 350	Terminal	10	32
HVT-3000U2	3000	3600	#	±12	DC	1.0	-25...+85	10	< 350	Terminal	10	32

(1)#is rated output, there are six kinds, A0, A1, V0, V1, V2, V3, the corresponding output value is as below chart.

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#	A0	A1	V0	V1	V2	V3
Output	0-20mA	4-20mA	0-5V	1-5V	0-10V	1-10V


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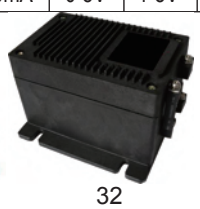
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DC Voltage Transducer

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HVT-4000U3	4000	4800	#	±12	DC	1.0	-25...+85	10	< 350	Terminal	10	33
HVT-6000U3	6000	7200	#	±12	DC	1.0	-25...+85	10	< 350	Terminal	10	33
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HVT-50U4	50	60	#	±12	DC	1.0	-25...+85	2.5	< 350	Terminal	10	34
HVT-100U4	100	120	#	±12	DC	1.0	-25...+85	2.5	< 350	Terminal	10	34
HVT-200U4	200	240	#	±12	DC	1.0	-25...+85	2.5	< 350	Terminal	10	34
HVT-400U4	400	480	#	±12	DC	1.0	-25...+85	2.5	< 350	Terminal	10	34
HVT-600U4	600	720	#	±12	DC	1.0	-25...+85	2.5	< 350	Terminal	10	34
HVT-50U6	50	60	#	±12	DC	1.0	-25...+85	2.5	< 350	Terminal	10	36
HVT-100U6	100	120	#	±12	DC	1.0	-25...+85	2.5	< 350	Terminal	10	36
HVT-200U6	200	240	#	±12	DC	1.0	-25...+85	2.5	< 350	Terminal	10	36
HVT-400U6	400	480	#	±12	DC	1.0	-25...+85	2.5	< 350	Terminal	10	36
HVT-600U6	600	720	#	±12	DC	1.0	-25...+85	2.5	< 350	Terminal	10	36

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