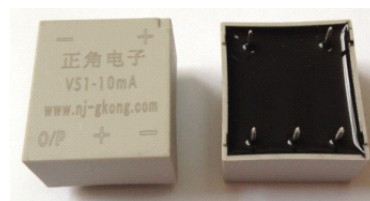


正角电子™



VS1 系列电压传感器的初、次级之间是绝缘的，可用于测量直流、交流和脉冲电压。

VS1 series current mode voltage sensor is a device based on the principle of the hall effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC AC or pulsed currents.



电参数 Electrical data (Ta=25℃±5℃)

Type	VS1-5mA	VS1-10mA	单位 Unit
额定输入电流 (I _{pn}) Rated current (I _{pn})	5	10	mA
测量电流范围 (I _p) Measure range (I _p)	7	14	mA
匝比 (N _p /N _s) Turns ratio(N _p /N _s)	5000: 1000	2500: 1000	T
初级线圈电阻 Primary coil resister	650	200	Ω
次级线圈电阻 Secondary coil resister	110	110	Ω
测量电阻 Measure resister	100~350	100~190	Ω
额定输出电流 Rated output	25	25	mA
电源电压 Supply voltage	±12, ±15		V
功耗电流 Power Consumption	≤20+ I _p X(N _p /N _s)		mA
失调电流 Offset current	@I _p =0	±0.2	mA
失调电流温漂 Offset drift	@ -40~+85℃	≤±0.5	mA
线性度 Linearity	@I _p =0-±I _{pn}	≤0.2	%FS
响应时间 Response time	≤40		μS

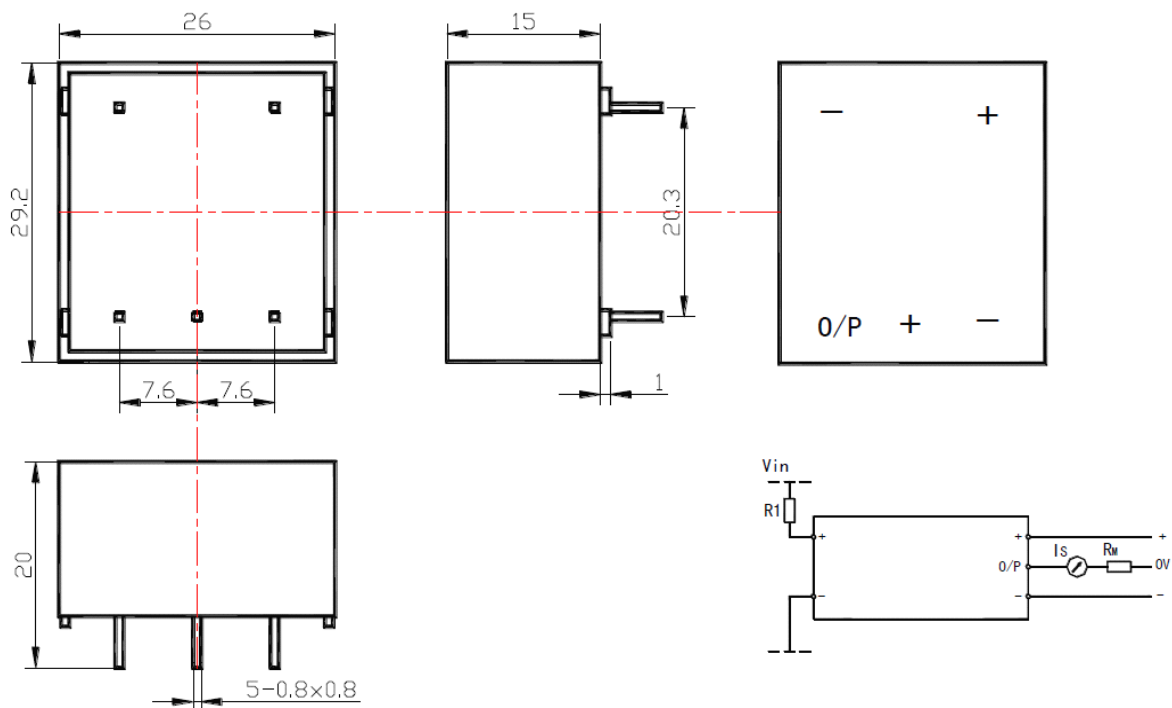
VS1 系列霍尔电压传感器
VS1 Series Hall Effect Voltage Sensor

绝缘电压 Galvanic isolation	@ 50HZ,AC,1min	2.5	KV
----------------------------	----------------	-----	----

应用 Applications

- 交流变频驱动器
AC variable speed drives
- 直流电机驱动静态转换器
Static converters for DC motor drives
- 通讯电源
Battery supplied applications
- 不间断电源 UPS
Uninterruptible Power Supplies (UPS)
- 开关电源
Switched Mode Power Supplies (SMPS)
- 电焊机
Power supplies for welding applications

结构参数 Mechanical dimension(for reference only)



Remarks:

1. All dimensions are in mm.
2. General tolerance $\pm 1\text{mm}$.

VS1 系列霍尔电压传感器 VS1 Series Hall Effect Voltage Sensor

使用说明 Directions for use

1. 电阻R1 使传感器输入电流为额定初级电流时传感器有最佳精度，因此传感器应尽量测量与10mA 的初级电流相对应的电压。

The accuracy of sensor will be the best when the current passes through resistor R1 and becomes the rated primary current, and therefore the current to be measured by sensor should comply with the primary current 10mA.

2. 例如：测电压VIN=250V For example, VIN=250V:

精度 (Accuracy) = ±0.8% of VIN (@Ta=+25°C) a) R1=25KΩ / 10W, IP =10mA

精度 (Accuracy) = ±1.6% of VIN (@Ta=+25°C) b) R1=50KΩ / 5W, IP =5mA

3. 操作范围 (推荐的) 考虑到初级线圈的电阻 (与R1 相比, 为保持温度差异尽可能低) 和隔离, 此传感器适用于测量电压。

Considering resistance of primary coil (compared with R1 and temperature difference kept as low as possible) and electrical isolation within measure range (recommended), this sensor is suitable for measuring voltage.

执行标准 Standards

- UL94-V0.
- EN60947-1:2004
- IEC60950-1:2001
- EN50178:1998
- SJ 20790-2000

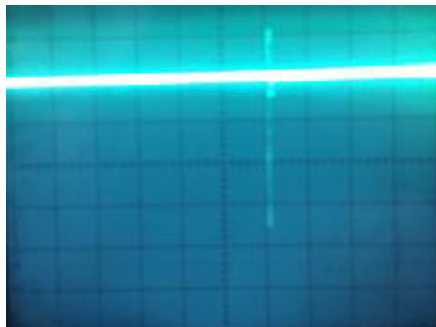
总体参数 General date

	数值 Value	单位Unit
工作温度 (TA) Operating temperature	-40 to +85	°C
储存温度 (TS) Storage temperature	-40 to +125	°C
毛重(约) (M) Mass(approx)	22	g

特性图 Characteristics chart

抗脉冲电压干扰特性

Effects of impulse noise



输出电压
(Output voltage)