

## HV100霍尔电压传感器

### (HV100 Hall-effect voltage Sensor)

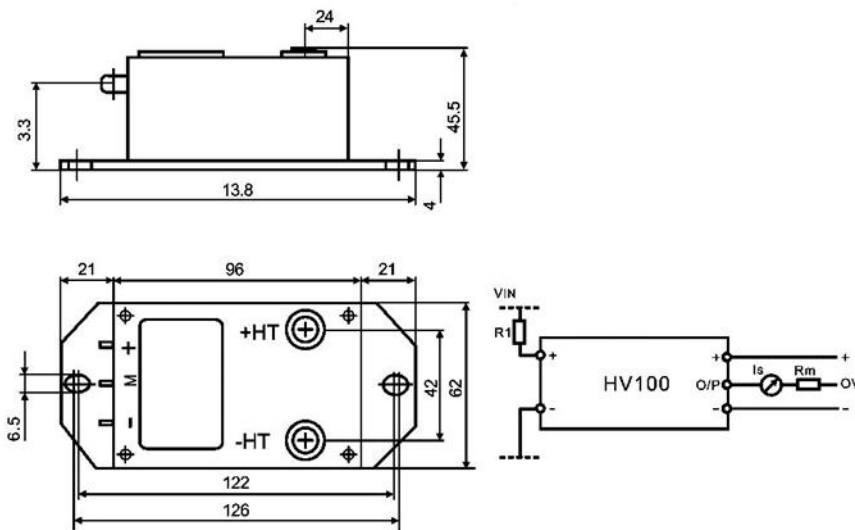
HV100 霍尔电压传感器的初、次级之间是绝缘的，可用于测量直流、交流和脉冲电压。

(HV100 Hall-effect voltage Sensor between primary and secondary is insulated, can be used for the measurement of DC, AC and pulse voltage)

电气参数 (Electrical characteristics)			
	型号 Type	HV100	
V <sub>pn</sub>	额定输入电流 Rated input	10 (100~2500V) mA	
V <sub>pm</sub>	测量范围 Measuring range	20 mA	
R <sub>m</sub>	测量电阻 Measuring resistance	±15V @±10mA <sub>max</sub> 0(min) 150(max) @±20mA <sub>max</sub> 0(min) 50(max) Ω	
K <sub>N</sub>	匝比 Turns ratio	10000:2000	
I <sub>out</sub>	额定输出电流 Rated output current	50 mA	
R <sub>p</sub>	初级线圈内阻 Primary coil resistance	1900 Ω	
R <sub>s</sub>	次级线圈内阻 Secondary coil resistance	60 Ω	
I <sub>o</sub>	零电流失调 Zero offset current	<0.2 mA	
V <sub>c</sub>	电源电压 Supply voltage	±15 (±5%) V	
I <sub>c</sub>	静态功耗 Current consumption	≤20+I <sub>out</sub> mA	
I <sub>ot</sub>	零点温漂 Thermal drift of I <sub>o</sub>	-40~+85°C	±0.5 mA
F	带宽 Frequency bandwidth(-3dB)	DC~2000 Hz	
ε <sub>G</sub>	精度 Accuracy	±0.5 %	
ε <sub>L</sub>	线性度 Linearity	±0.1 %	
Tr	响应时间 Response time	≤40 μS	
V <sub>d</sub>	绝缘电压 Insulation voltage	50HZ, 1min 初级-次极 6.0 KV	

Ta	工作温度 Ambient operating temperature	-40~+85	°C
Ts	储存温度 Ambient storage temperature	-40~+125	°C
M	重量 mass	280	g
	标准 Standards	EN50178\IEC61010-1\UL94-Vo\ROHS	

### 机械参数 Dimensions (mm)



### 使用说明 Remarks

- 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。

(Resistor R1 so that the sensor input current for a nominal primary current sensor has the best precision, and therefore the sensor should try to measure the voltage corresponding to the primary current of 10 mA.)

例如：测电压VIN=1000V (For example: the measured voltage VIN = 1000V)

精度 (Accuracy) = ±0.5% of VIN (@Ta = +25°C)      a) R1 = 100k Ω / 40w, IP = 10mA

精度 (Accuracy) = ±2.5% of VIN (@Ta = +25°C)      b) R1 = 400k Ω / 5w, IP = 2.5mA

- 工作范围(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100V至2500V。

(The scope of work (recommended) take into account the resistance of the primary coil (compared with R1 as low as possible, in order to maintain the temperature difference) and isolation, this sensor suitable for measuring voltage 100V to 2500V.)