

FS***DKT5 新能源电动汽车传感器

应用霍尔效应原理研制的开环电流传感器，能在原边与副边电隔离条件下 测量直流、交流、脉冲以及各种不规则波形的电流。

Based on the measuring principle of the Hall Effect, the current of DC, AC, pulsed or various irregular waveforms can be measured under the condition of a galvanic isolation between primary and secondary circuit.



电气特性/Electrical Characteristics

型号 Type	额定测量电流 I _{PN} Rated input current		测量范围I _{PM} Measuring current range	
	CH1	CH2	CH1	CH2
FS20DKT5/600	20	600	20	600
FS20DKT5/500	20	500	20	500
FS30DKT5/150	30	-350/150	30	-350/150
FS30DKT5/350	30	350	30	350
FS60DKT5/600	60	600	60	600
FS75DKT5/500	75	500	75	500

注：额定测量电流可根据客户需求定制

V _{CC}	电源电压 Supply voltage	@DC	+5V ±5%	V
I _{CC}	电流消耗 Current consumption	@I _{PN}	<15	mA
R _{IS}	绝缘阻抗 Galvanic isolation	@500V DC	>1000	MΩ
V _{OUT}	额定输出电压 Rated output voltage	@R _L =4.7K/25 °C	1/2V _{CC} ±2	V
R _{OUT}	输出电阻 Output internal resistance		9	Ω
R _L	负载电阻 Load resistance		≥4.7	KΩ

动态特性/Dynamic Characteristics

X _G	精度 Accuracy	@I _{PN} , T=25°C	<±1	%
ε _L	线性度 Linearity	@I _{PN} , T=25°C	<±0.5	%
V _{OE}	零点失调电压 V _{OE} Zero offset voltage	@I _P =0, T=25 °C	1/2V _{CC} ±0.01	V
V _{OM}	磁滞电压 Magnetic offset voltage	@I _{PN} →0, T=25°C	≤±10	mV
TCV _{OE}	偏移电压温漂 V _{OE} Temperature variation of V _{OE}	@-40°C~125°C	≤±0.5	mV/°C
TCV _{OUT}	输出电压温漂 Temperature variation of V _{OUT}	@-40°C~125°C	≤±0.5	mV/°C
di/dt	电流跟随速度 accurately followed		>100	A/us
T _r	响应时间 Response time	@90%I _{PN}	<5	us
BW	工作频宽 -3dB CL=1nF 25°C Bandwidth		DC~120	KHz

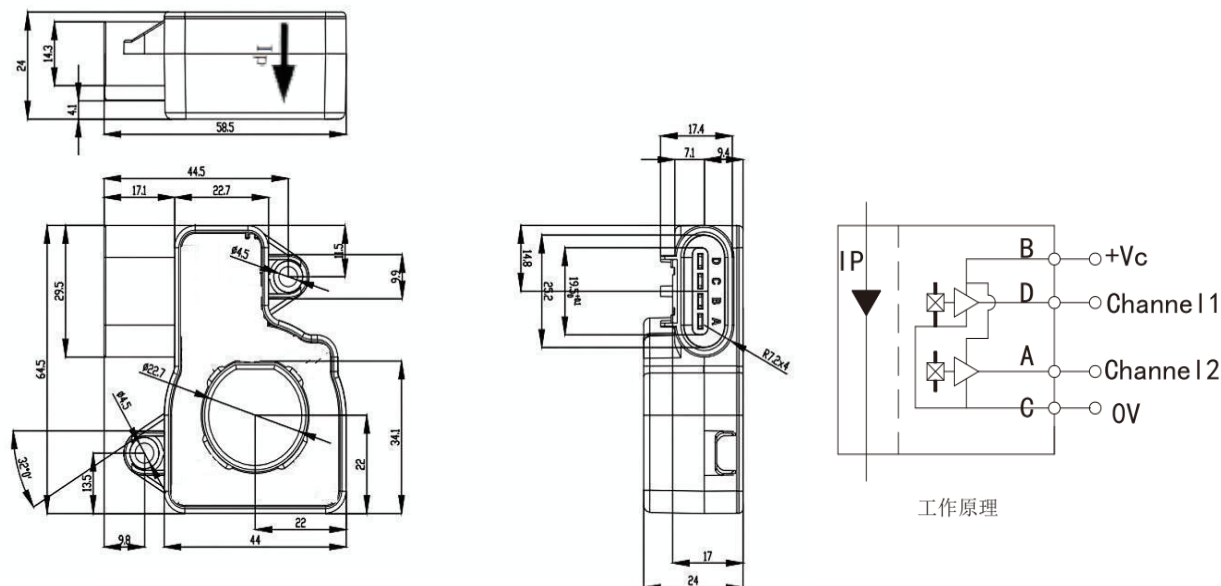
一般特性/General characteristics

T _A	工作温度 Operating temperature	-40~+125	°C
T _S	储存温度 Storage temperature	-45~+125	°C
m	产品重量 Mass (approx)	≈100	g

隔离特性/Insulation coordination

V _d	绝缘电压 Galvanic isolation	@50HZ, 1min	3.0	KV
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结构图/Structure diagram



主要尺寸/Main dimensions

总公差 General tolerance $\pm 0.3\text{mm}$

穿孔尺寸 Primary through-hole: $\phi 22.5\text{mm}$

使用说明/Directions for use

- 按照结构图中的电流箭头标定的方向接入电流，注意电流的正反向。

Please install according to the direction of the arrow in the structure diagram, and pay attention to the positive and reverse direction of current.

- 按照结构图中标定的功能管脚定义来接线(注意：错误的接线可能导致传感器损坏)。

Please wire according to the definition of the functional pin illustrated in the structure diagram (Note: the inaccurate way of installation may cause damage to the sensor).

- 初级导体的温度不应超过 100°C 。

Temperature of the primary conductor should not exceed 100°C .

- 上述的规格为标准规格，我司可根据客户要求定制产品。

This is a standard mode. We can provide the products according to your specifications.

电气特性图/ Electrical characteristic diagram

脉冲电流响应特性 Pulse current response characteristic

