



# FS\*\*\*DKT5-28 新能源电动汽车传感器



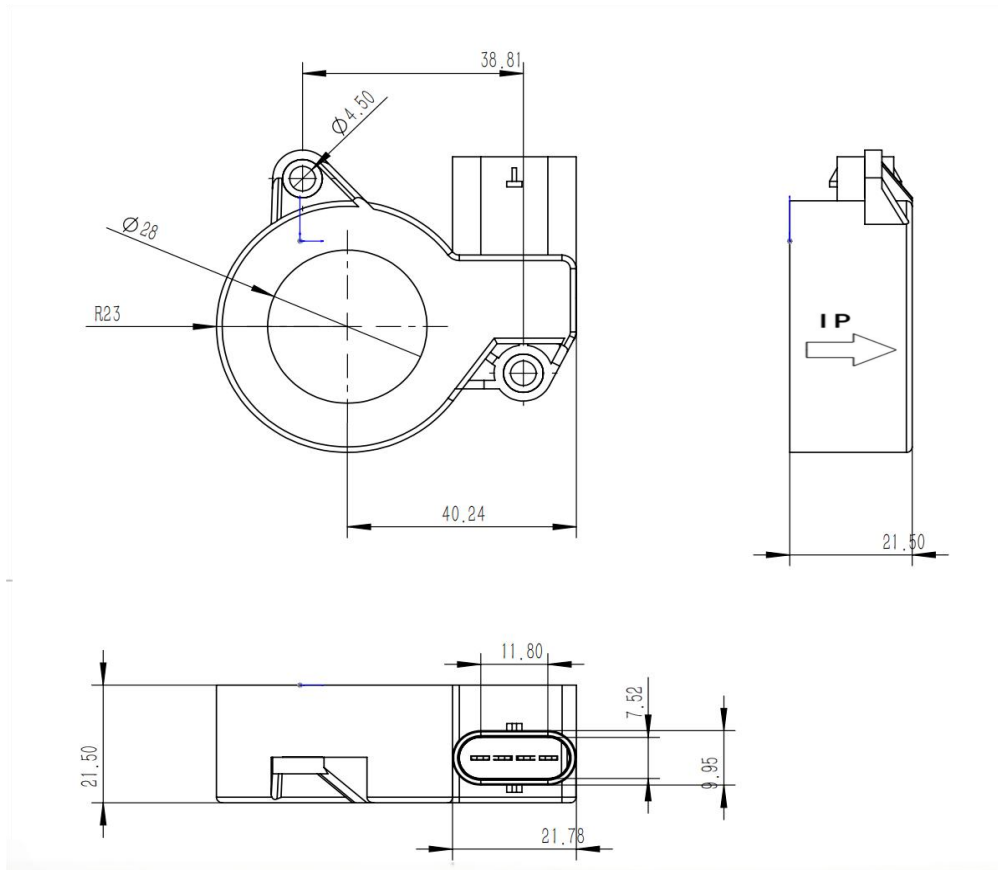
应用霍尔效应原理研制的开环电流传感器,能在原边与副边电隔离条件下测量直流、交流、脉冲以及各种不规则波形的电流。

Open loop current sensor based on the principle of Hall-effect It can be used for measuring AC,DC, pulsed and mixed current.

电气特性/Electrical Characteristics				
型号 Type	额定测量电流 $I_{PN}$ Rated input current		测量范围 Measuring current range	
	CH1	CH2	CH1	CH2
FS020DKT5/300-28	20	300	$\pm 24$	$\pm 360$
FS020DKT5/500-28	20	500	$\pm 24$	$\pm 360$
FS030DKT5/150-28	30	150	$\pm 36$	$\pm 180$
FS030DKT5/350-28	30	350	$\pm 36$	$\pm 420$
FS075DKT5/500-28	75	500	$\pm 90$	$\pm 600$
FS075DKT5/1000-28	75	1000	$\pm 90$	$\pm 1200$
$V_{CC}$	电源电压 Supply voltage		@DC +5V $\pm 5\%$	V
$I_{CC}$	电流消耗 Current consumption		@ $I_{PN}$ <15	mA
$R_{is}$	绝缘阻抗 Galvanic isolation		@500V DC >1000	M $\Omega$
$V_{OUT}$	额定输出电压 Rated output voltage		@ $R_L=4.7K/25^\circ C$ $1/2V_{CC} \pm 2$	V
$R_{OUT}$	输出电阻 Output internal resistance		9	$\Omega$
$R_L$	负载电阻 Load resistance		$\geq 4.7$	K $\Omega$
动态特性/Dynamic Characteristics				
$X_G$	精度 Accuracy		@ $I_{PN}, T=25^\circ C$ < $\pm 1$	%
$\epsilon_L$	线性度 Linearity		@ $I_{PN}, T=25^\circ C$ < $\pm 0.5$	%
$V_{OE}$	零点失调电压 Zero offset voltage		@ $I_P = 0, T=25^\circ C$ $1/2V_{CC} \pm 0.01$	V
$V_{OM}$	磁滞电压 Magnetic offset voltage		@ $I_{PN} \rightarrow 0, T=25^\circ C$ $\leq \pm 10$	mV
$TCV_{OE}$	偏移电压温漂 Temperature variation of VOE		@ $-40^\circ C \sim 125^\circ C$ $\leq \pm 0.5$	mV/ $^\circ C$

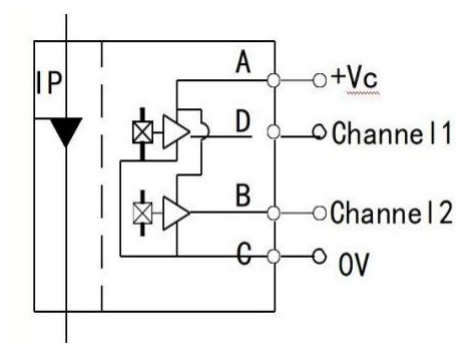
TCV <sub>OUT</sub>	输出电压温漂 Temperature variation of VOUT	@-40°C~125°C	≤±0.5	mV/°C
di/dt	电流跟随速度 accurately followed		>100	A/us
Tr	响应时间 Response time	@90%I <sub>FN</sub>	<5	us
BW	工作频宽 -3dB CL=1nF 25°C Bandwidth		DC~120	KHz
<b>一般特性/General characteristics</b>				
T <sub>A</sub>	工作温度 Operating temperature		-40~+125	°C
T <sub>S</sub>	储存温度 Storage temperature		-45~+125	°C
m	产品重量 Mass(approx)		≈100	g
<b>隔离特性/ Insulation coordination</b>				
V <sub>d</sub>	绝缘电压 Galvanic isolation	@50HZ, 1min	3.0	KV

**外形尺寸(mm)/Dimensions of drawing(mm)**



### 主要尺寸/Main dimensions

1. 总公差 General tolerance:  $\pm 0.3\text{mm}$
2. 穿孔尺寸 Primary through-hole:  $\phi 28\text{mm}$

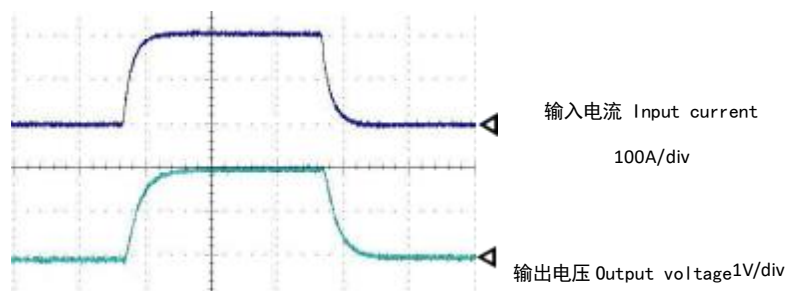


### 使用说明/Remarks

1. 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.
2. 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).
3. 初级导体的温度不应超过  $100^{\circ}\text{C}$ 。  
Temperature of the primary conductor should not exceed  $100^{\circ}\text{C}$ .
4. 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



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