

## 交/直流霍尔电流传感器 CYHCS013-C

### 电气参数/输入

原边额定有效电流 $I_r$ (A)	原边电流测量范围 $I_p$ (A) V <sub>cc</sub> =15V	原边导线直径 $\Phi$ (mm)	产品工件号
3	± 6	0.6	CYHCS-M0030-C
5	± 10	0.8	CYHCS-M0050-C
10	± 20	1.0	CYHCS-M0100-C
15	± 30	1.6	CYHCS-M0150-C
20	± 40	1.6	CYHCS-M0200-C
25	± 50	1.6	CYHCS-M0250-C
30	± 60	1.6	CYHCS-M0300-C
35	± 70	1.6x2	CYHCS-M0350-C
40	± 80	1.6x2	CYHCS-M0400-C
45	± 90	1.6x2	CYHCS-M0450-C
50	± 100	1.6x2	CYHCS-M0500-C

供电电源  
电流消耗  
有效电压, 2.5kV AC 时隔离测试, 50/60Hz, 1min,  
隔离电阻 (500V DC 时)

$V_{cc} = 15V \pm 5\%$ ,  
 $I_c < 20mA$   
 $V_{is} < 10mA$   
 $R_{is} > 500 M\Omega$

### 电气参数/输出

输出电压,  $I_r, T_A=25^\circ C$ :  
输出阻抗:  
负载电阻:

$V_{out} = V_{EO} \pm 2V$   
 $R_{out} < 150\Omega$   
 $R_L > 10k\Omega$

### 精度

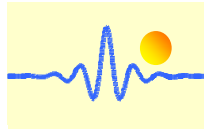
精度,  $I_r, T_A=25^\circ C$  (无偏置),  
线性度, 从 0 到  $I_r, T_A=25^\circ C$ ,  
电偏置电压,  $T_A=25^\circ C$ ,  
迟滞偏置电压 ( $I_r \rightarrow 0$ )  
偏置电压热漂移,  
热漂移 (-10°C to 50°C),  
响应时间, 90%  $I_p$  ( $f=1kHz$ )  
频率带宽 (-3dB),

$X < 1.0\%$   
 $E_L < 1.0\%$   
 $V_{EO} = 5.0V \pm 50mV$   
 $V_{om} < 20mV$   
 $V_{ot} < 2mV/^\circ C$   
T.C.  $< \pm 0.1\% / ^\circ C$   
 $t_r < 3\mu s$   
 $f_b = 50 kHz$

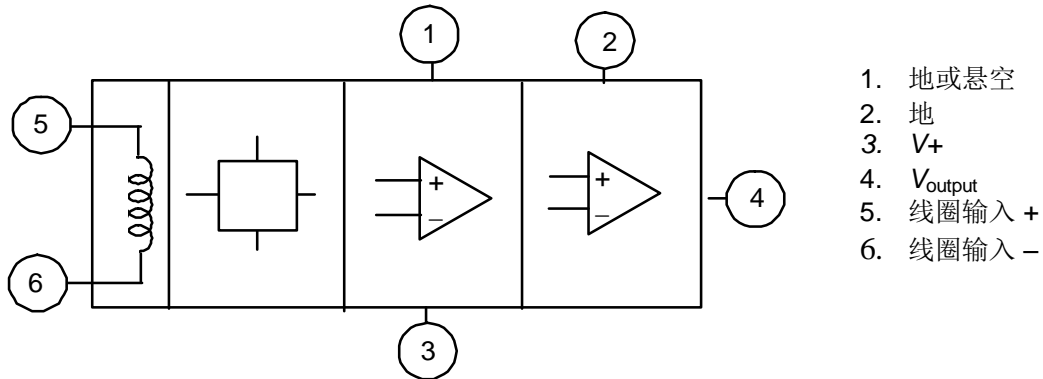
### 通用参数

工作环境温度,  
贮存环境温度,

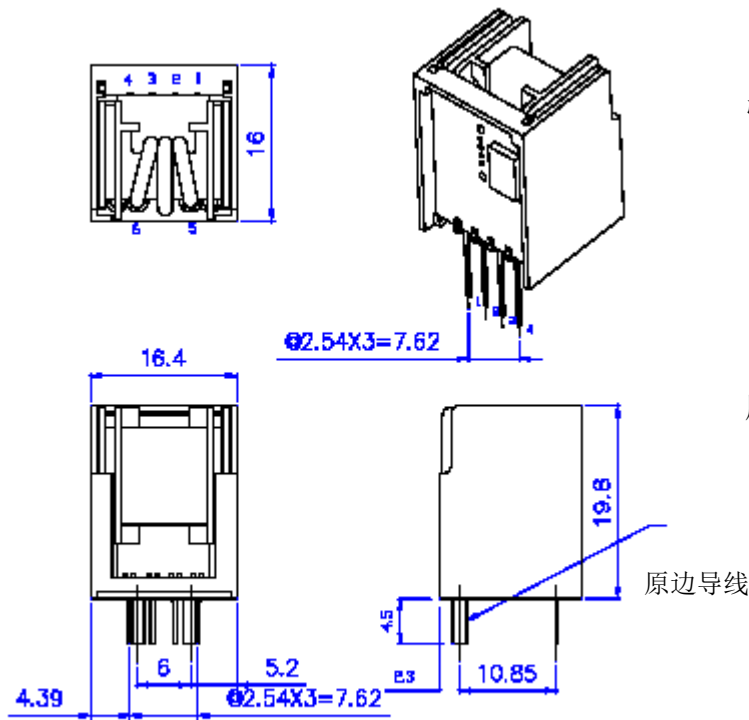
$T_A = -10^\circ C \sim +80^\circ C$   
 $T_S = -25^\circ C \sim +85^\circ C$



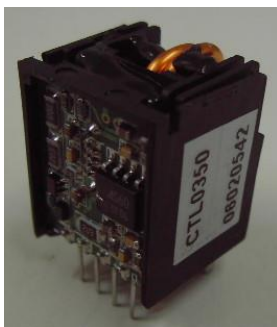
### 功能框图

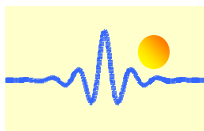


### 引脚定义

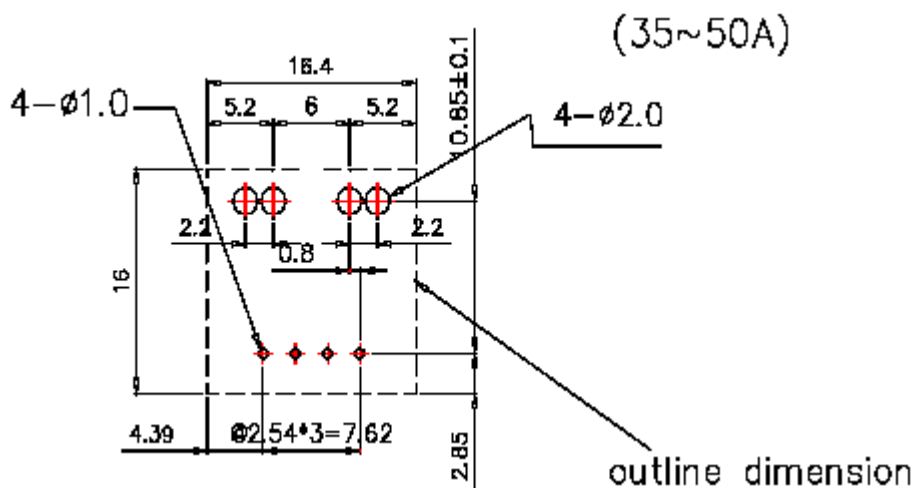
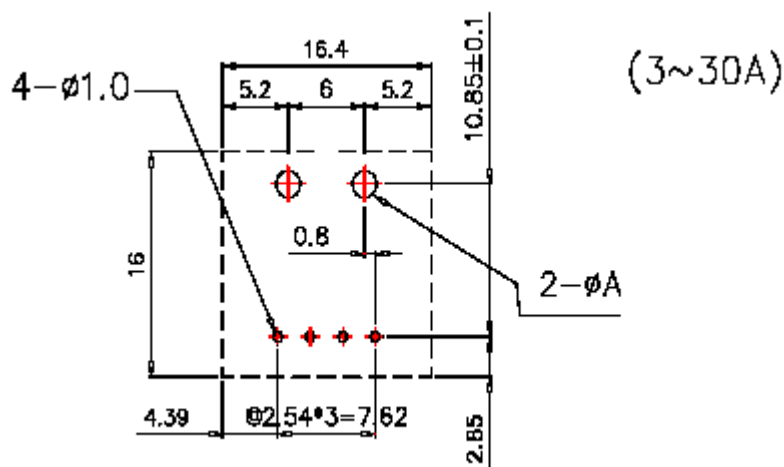


- CYHCS-M0030-C  $\Phi$  0.6
- CYHCS-M0050-C  $\Phi$  0.8
- CYHCS-M0100-C  $\Phi$  1.0
- CYHCS-M0150-C  $\Phi$  1.6
- CYHCS-M0200-C  $\Phi$  1.6
- CYHCS-M0250-C  $\Phi$  1.6
- CYHCS-M0300-C  $\Phi$  1.6
- CYHCS-M0350-C  $\Phi$  1.6x2
- CYHCS-M0400-C  $\Phi$  1.6x2
- CYHCS-M0450-C  $\Phi$  1.6x2
- CYHCS-M0500-C  $\Phi$  1.6x2

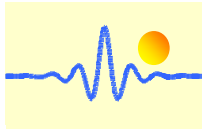




## 孔径推荐



产品名称	ΦA(mm)
CYHCS-M0030-C	1.0
CYHCS-M0050-C	1.2
CYHCS-M0100-C	1.4
CYHCS-M0150-C	2.0
CYHCS-M0200-C	2.0
CYHCS-M0250-C	2.0
CYHCS-M0300-C	2.0



## 输入电流和输出电压关系

以传感器 CYHCS-M0100-C 为例, 输入电流和输出电压关系如表 1、图 1 和图 2 所示。

表 1. 输入电流和输出电压关系

输入电流 (A)	-20	-15	-10	-5	0	5	10	15	20
输出电压 (V)	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0

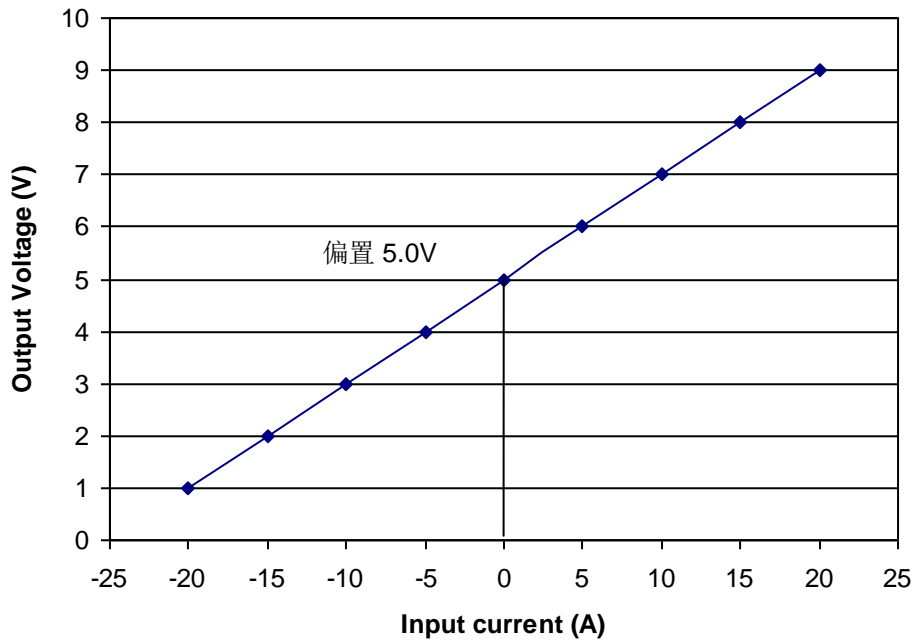


Fig. 1 输入电流(DC)与输出电压 (DC) 关系

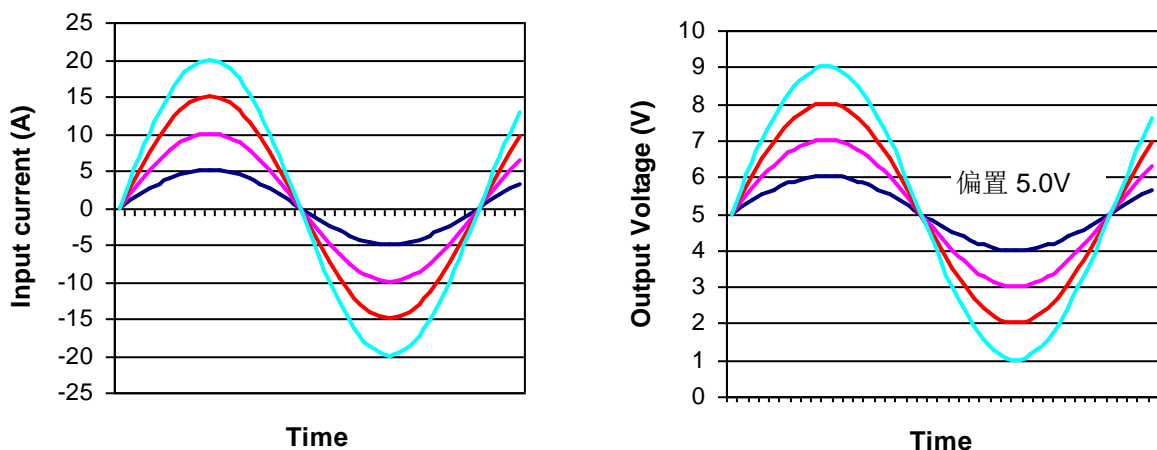


Fig. 2 输入电流 (AC) 与输出电压 (AC)关系