

## CSNE151-005

### 1. 描述

CSNE151-005 闭环电流传感器，基于磁补偿原理。原 / 副边电路之间电气绝缘的，可以测量直流、交流和脉冲电流。



25A闭环电流传感器

### 2. 电气参数

额定电流 (In):	25A.t rms ( 额定值 )	
测量范围:	0~ ± 36A.t ( DC~AC Peak )	
测量阻值 ( 在 70°C ):	Rm min	Rm max
with ± 15V, at ± 25 A.t Max:	100 Ω	320 Ω
模拟输出电流 ( 在 25A 时 ):	25mA	
匝数比率:	1/1000	
精度 ( 25°C ):	优于 ± 0.5%In	
供电电压:	± 15VDC ( ± 5% )	
原副边电气绝缘:	5KVrms/50Hz/1 分钟	

### 3. 精确性 - 动态参数

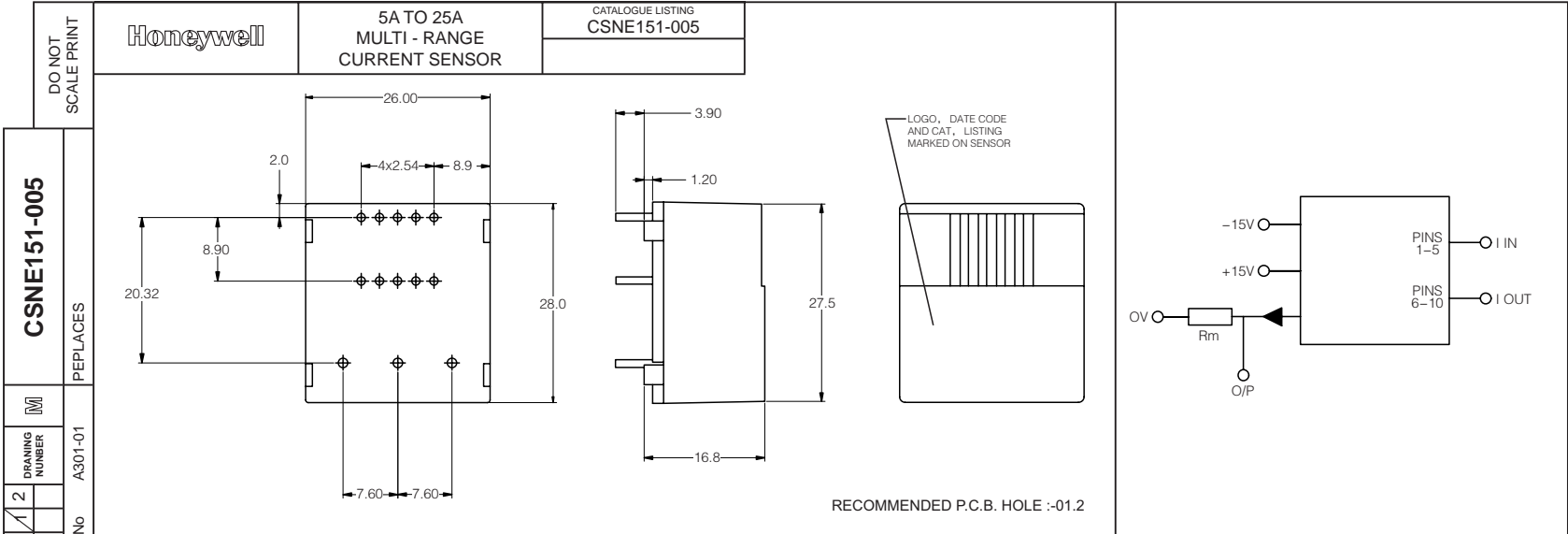
零点失调电流 ( 25°C ):	优于 ± 0.15mA
失调电流温飘 ( 0~70°C ):	优于 ± 0.60mA
线性度:	优于 ± 0.20%
响应时间:	优于 1μs
频带宽度:	DC~150KHz
di/dt 精确跟随:	优于 50A/ μ s

### 4. 技术指标

工作温度范围:	0~70°C
储存温度范围:	-40~90°C
耗电流:	10mA 加上输出电流
副边内阻 ( +70°C ):	110 Ω
传感器外壳:	玻纤的 PBT ( UL94-V0 级 )
连接形式 ( 初级 ):	10X1.20mm 焊脚
连接形式 ( 次级 ):	3X1.2mm PCB 焊脚

### 附注

1. 上述参数都在 25°C 和 +/-15V 供电的情况下，除非另外说明；
2. “输入 - 输出” 传感信号，要在 O/P 端子处得到正的测量电流，电流必须按照箭头方向流动。



**CSNE151-005**  
 PEPLACES  
 DRIVING NUMBER A301-01  
 ISSUE 2  
 RELEASE No

REVISIONS  
 2 WJ 1/96  
 1/96  
 DRAWN M. LOCH  
 CHECK  
 DESIGN  
 AUTHORN

DESCRIPTION		ELECTRICAL DATA				
CSNE151-005 IS A MULTI-RANGE CURRENT SENSOR MODULE BASED ON THE 'NULL BALANCE' HALL EFFECT PRINCIPLE, 5, 6, 8, 12 OR 25A APPROPRIATE 1 TO 5 PRIMARY TURNS.		NOMINAL PRIMARY CURRENT $I_{pn}$ : - 25A rms MEASURING RANGE $I_p$ : - 0 TO $\pm 36A$ LOAD RESISTANCE : - $R_m$ min $R_m$ max $\pm 25A$ . $\uparrow$ max 100 $\Omega$ 320 $\Omega$ $+36A$ . $\uparrow$ max 100 $\Omega$ 190 $\Omega$				
SUPPLY VOLTAGE : - $\pm 15V$ ( $\pm 5\%$ ) DIELECTRIC STRENGTH : - 5.0KVrms/50Hz/ImIn. CURRENT CONSUMPTION : - $10 + I_s$ mA PRIMARY INTERNAL RESISTANCE : - 1.25m $\Omega$ /TURN SECONDARY INTERNAL RESISTANCE : - 110 $\Omega$ MAX AT $+70^\circ C$		ACCURACY DATA OFFSET : - $\pm 0.05$ mA TYP. $\pm 0.15$ mA MAX. OFFSET DRIFT WITH TEMP .: - $\pm 0.17$ mA TYP. $\pm 0.6$ mA MAX. LINEARITY : - $\pm 0.2\%$ $I_{pn}$ RESPONSE TIME : - $< 1\mu S$ FREQUENCY : - DC TO 150KHz				
PRIMARY TURNS	PRIMARY CURRENT		NOM. OUTPUT CURRENT $I_s$ (mA)	PRIMARY RESISTANCE(m $\Omega$ )	PRIMARY INSERTION INDUCTANCE ( $\mu H$ )	PIN CONNECTIONS
	NOM. $I_{pn}$ (A)	MAX. $I_p$ (A)				
1	25	36	25	0.3	0.023	
2	12	18	24	1.1	0.09	
3	8	12	24	2.5	0.21	
4	6	9	24	4.4	0.37	
5	5	7	25	6.3	0.58	

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THIRD ANGLE PROJECTION

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SCALE:-2:1

DIMENSIONS ARE IN MILLIMETRES