Honeywell

50A Closed Loop Current Sensor

CSNE151-204

Preliminary Specification

2000 Turn 50Arms Current Sensor

1. DEFINITION.

The CSNE151-204 is a current transducer based on the principle of magnetic compensation. It provides electronic measurement of DC, AC or pulsed currents, and their combinations, with galvanic isolation between the primary (high current) and secondary circuits.

2. ELECTRICAL DATA.

Nominal current (In)		: 50 A.t rms	
Measuring range (Continuous)		: 0 to ± 50 A.t	
Measuring range (AC Peak)		: 0 to ± 90 A.t[3]	
Measuring resistance (at +70°C)		: Rm min	Rm max
with ±15V	at ± 50 A.t max	: 0 ohm	250 ohm [1]
	at ± 90 A.t max[3]	: 0 ohm	54 ohm[1]
Nominal analogue output current at 50A		: 25 mA	
Turns ratio		: 1,2,3,4 / 2000	
Accuracy at +25°C		: maximum ±0.5% at In	
Supply voltage		: ±15V dc (±5%)	
Galvanic isolation		: 5 kV rms / 50 Hz / 1 minute	

3. ACCURACY - DYNAMIC PERFORMANCE.

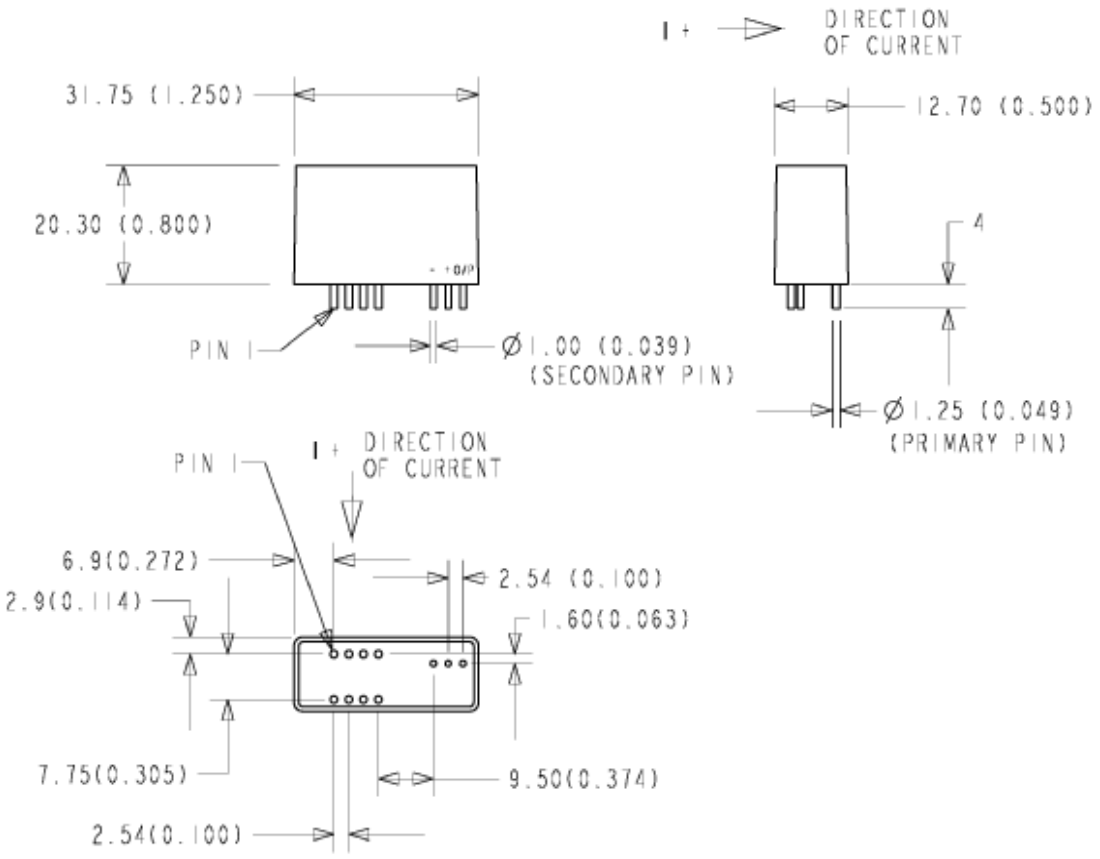
Zero offset current at +25°C	: better than ±0.3 mA
Thermal drift of offset current 0°C to 70°C	: better than ±0.6 mA
Linearity	: better than ±0.3 %
Response time	: better than 1µs
Bandwidth	: DC to 100 kHz
dI/dt	: better than 50A/µs

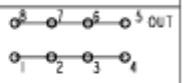
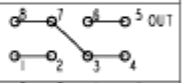
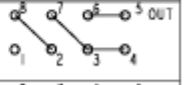
4. GENERAL DATA.

Operating temperature	: -40°C to +75°C
Storage temperature	: -40°C to +90°C
Current consumption	: 10 mA plus output current
Secondary internal resistance (at +70°C)	: 190 ohm
Sensor housing	: Insulated plastic case
Connection (Primary)	: 4 x 1.25mm busbars
Connection (Secondary)	: 3 x 1.0mm pcb pins

Notes.

1. Values to be confirmed
2. All specifications are at +25°C and ±15V supply unless otherwise stated.
3. For 2s only. All 4 primary pins connected in parallel. Accuracy at ±90A TBD



PRIMARY TURNS	PRIMARY CURRENT NOM. Ipn(A)	NOM. OUTPUT CURRENT (mA) Is	PIN CONNECTIONS
1	50	25	
2	25	25	
3	12	18	
4	12	24