

DATA SHEET

Hall Effect Current Sensor

PN : HC S151-104/204

IPN = 25A - 50A

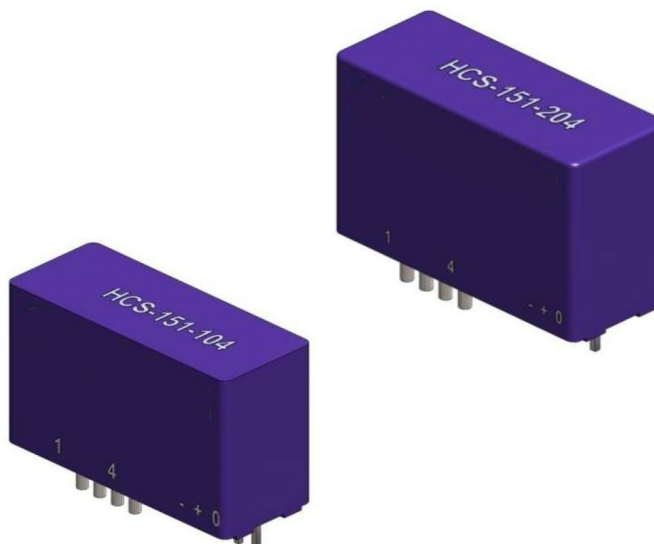
Features

- Closed loop
- High accuracy
- Supply voltage : $\pm 15V$ DC
- Current output
- Small PCB mounting
- Can be customized

Very good linearity
 Low power consumption
 Good over-current capability

Applications

- Frequency drive control home appliances
- Solar power management system
- Inverter applications
- Uninterruptible power supplies (UPS)
- Current monitoring



ELECTRICAL DATA

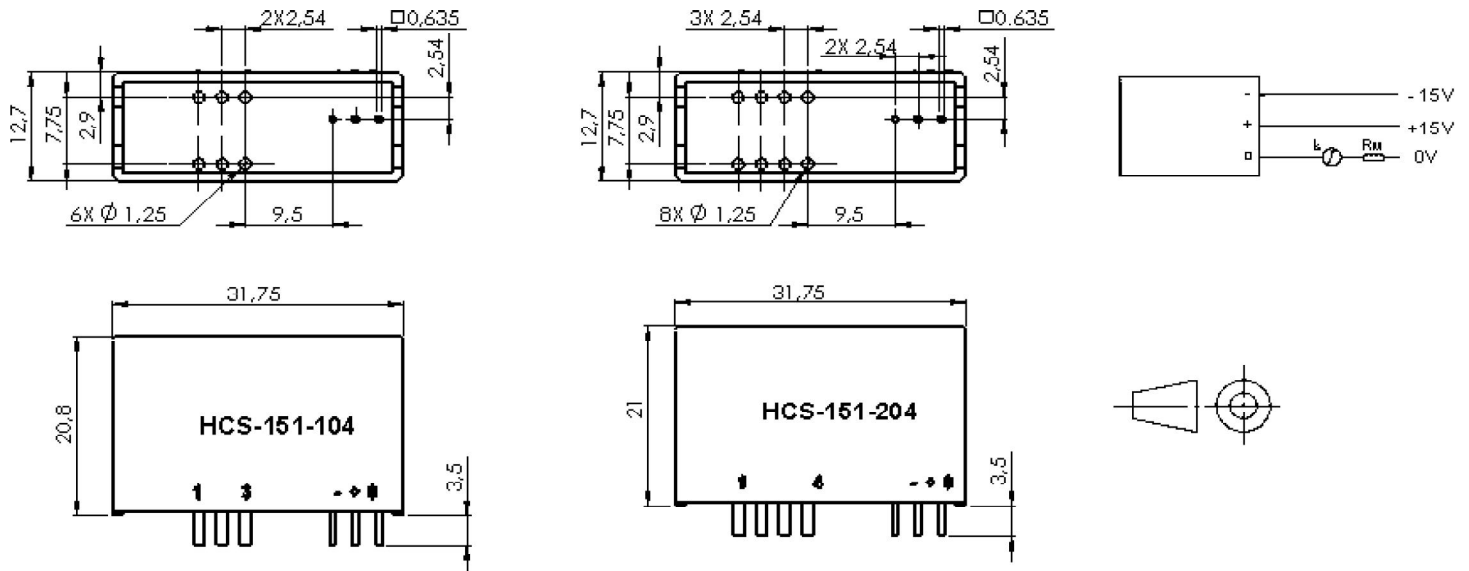
HCS-151-...	104	204
Nominal rms current I_{PN} (A)	25	50
Sensed current range I_{PM} (A)	± 55	± 120
Measuring resistance R_M (Ω) with $V_C = \pm 15$ V	270 to 730	54 to 250
Coil turns ratio K ($P^N:S^N$)	1 - 2 - 3 : 2000	1 - 2 - 3 - 4 : 2000
Secondary coil resistance (Ω)	180	
Nominal analog output current I_{SN} (mA)	12,5	25
Static current consumption I_{CO} (mA)	≤ 15	
Supply voltage V_C (Vdc)	$\pm 15^{\pm 5\%}$	

ACCURACY DYNAMIC PERFORMANCE

GENERAL & ISOLATION CHARACTERISTICS

Accuracy X_G @ I_{PN} , $T=25^\circ C$	$\pm 0,5\%$	%	Operating temperature	-40 to +85	$^\circ C$
Zero offset Current I_0 @ $I_P=0$, $T=25^\circ C$	$\leq \pm 0,2$	mA	Storage temperature	-40 to +125	$^\circ C$
Zero current drift @ - 40 $^\circ C$ to 85 $^\circ C$	$\leq \pm 0,5$	mA	Weight	18	g
Linearity error ϵ_L	$\leq 0,1$	% FS	Insulation voltage (50Hz, 1mn)	5	KV
di/dt accurately followed	> 50	A/ μs			
Response time t_r	≤ 1	μs			
Bandwidth (- 3db)	DC to 100	kHz			

DIMENSIONS



WIRING DIAGRAM

Number of Primary turns	P ^y current I _{PN} (A)		Peak Current I _{PM} (A)		Output Current I _{SN} (mA)		Primary pin
	104	204	104	204	104	204	
	HCS-151-104 & 204						
1	25	50	55	90	12,5	25	
2	12	24	27	45	12	24	
3	8	16	18	30	12	24	
4	6	12	13	22	12	24	

MECHANICAL CHARACTERISTICS

General tolerance	± 0,2 mm
Primary pins	6 or 8 x Ø 1,25 mm
Terminal connection	3 x 0,635*0,635

Cautions :

Do respect the wiring diagram in accordance with the current value and its direction.

WARNING : Incorrect wiring may cause damage to the sensor.