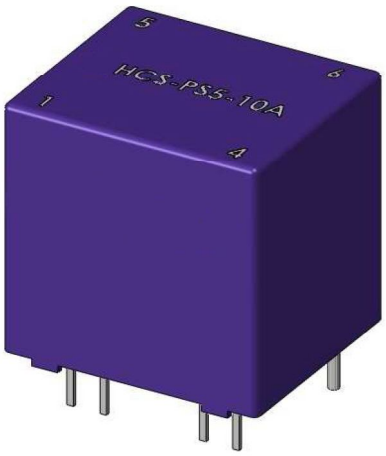
DATA SHEET
Hall Effect Current Sensor

PN : HCS-PS5 | **IPN = 5A - 6A - 10A - 15A - 25A**

Features

- **Closed loop**
- **High accuracy**
- **Supply voltage : +5V DC**
- **Voltage output**
- **Small PCB mounting**
- **Can be customized**

Very good linearity
Low response time
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-PS5-…	05A	06A	10A	15A	25A
Nominal rms current I_{PN} (A)	5	6	10	15	25
Sensed current range I_{PM} (A)	±16	±19,2	±32	±48	±80
Coils turns ration K (P^{ry}:S^{ry})	2:1600	2:1920	1:1600	1:1200	1:1000
Sampling resistor R_M (Ω)	100	100	100	50	25
Rated output voltage Vo (V)	V_{OE} ± 0,625				
Supply voltage V_C (Vdc)	+5 $^{\pm 5\%}$				
Static current consumption Ic (mA)	12				

ACCURACY DYNAMIC PERFORMANCE

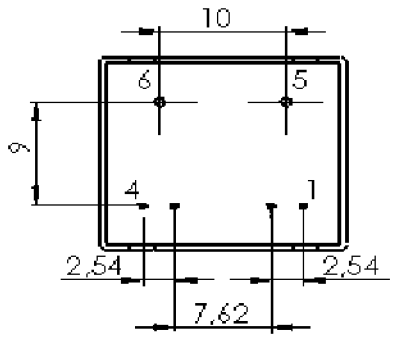
Total accuracy	± 0,7	%
Zero offset voltage V_{OE} @ I_P=0, T=25℃	2,5$^{\pm 0,02}$	V
Offset voltage drift V_{OE} @ - 40℃ to 85℃	≤ ±0,5	mV/℃
Linearity error ε_L	≤0,1	%FS
di/dt accurately followed	> 50	A/µs
Response time tr	≤500	ns
Bandwidth (- 1db)	DC to 200	kHz

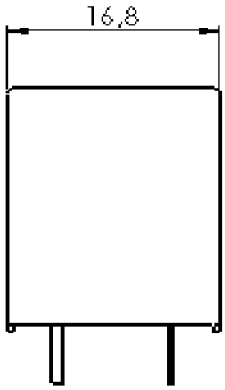
GENERAL & ISOLATION CHARACTERISTICS

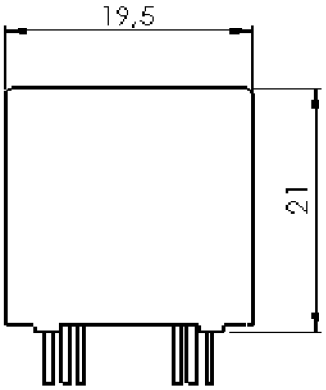
Operating temperature	-40 to +85	℃
Storage temperature	-40 to +125	℃
Weight	12	g
Insulation voltage (50Hz, 1mn)	2,5	KV

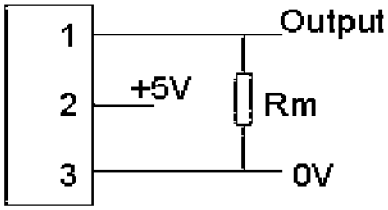
DIMENSIONS

1: Out
2: +5V
3: GND
4: GND
5: - In
6: +In







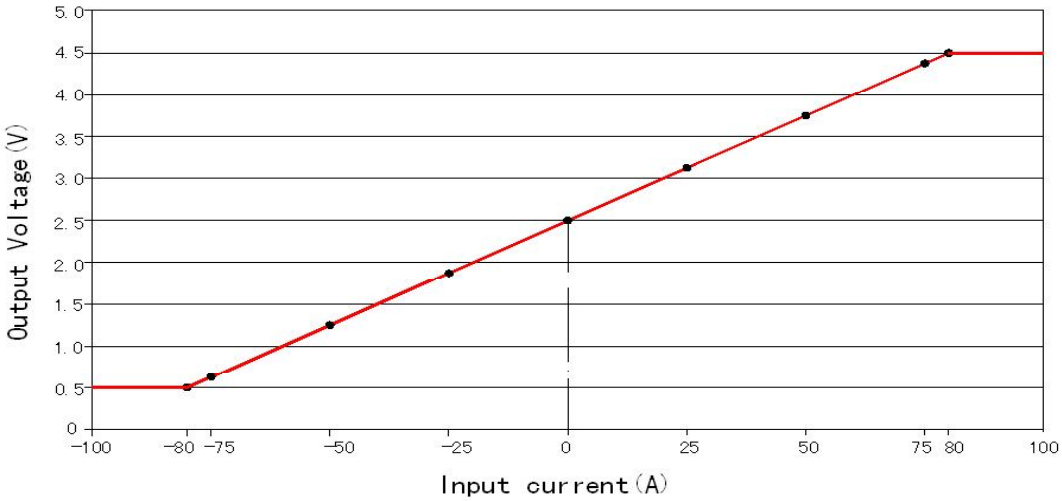


MECHANICAL CARACTERISTICS

HCS-PS5-...	05A	06A	10A	15A	25A
Input pin (mm)	Ø1,0	Ø1,0	Ø1,0	Ø1,0	Ø1,4
Terminal connection	4 pins, size 0,25 mm x 0,5 mm				
General tolerance	± 0,2 mm				

HCS-PS5-25A : Relation between Input Current and Output voltage :

Input current (A)	- 80	- 75	- 50	- 25	0	25	50	75	80
Output voltage (V)	0,5	0,625	1,25	1,875	2,5	3,125	3,75	4,375	4,5



WARNING : Incorrect wiring may cause damage to the sensor.