

$I_{PN} = 10...30A$

Features

- ◆ Open loop transducer using the Hall effect
- ◆ Low voltage application
- ◆ Unipolar +5V_{DC} power supply
- ◆ Primary current measuring range up to ±10..±30A
- ◆ Operating temperature range: -40°C < T_A < +85°C
- ◆ Output voltage: fully ratio-metric (gain and offset)

Advantages

- ◆ High accuracy
- ◆ Excellent linearity
- ◆ Low temperature drift
- ◆ Hermetic package

Industrial applications

- ◆ DC motor drives
- ◆ Switched Mode Power Supplies (SMPS)
- ◆ AC variable speed drives
- ◆ Uninterruptible Power Supplies (UPS)
- ◆ Battery supplied applications
- ◆ Power supplies for welding application

TYPES OF PRODUCTS		
Type	Primary nominal current	Primary current measuring range
	r. m. s I_{PN} (A)	I_P (A)
SIOPS10V1	10	±10
SIOPS15V1	15	±15
SIOPS20V1	20	±20
SIOPS25V1	25	±25
SIOPS30V1	30	±30

General Description

For the electronic measurement of currents: DC, AC, pulsed.

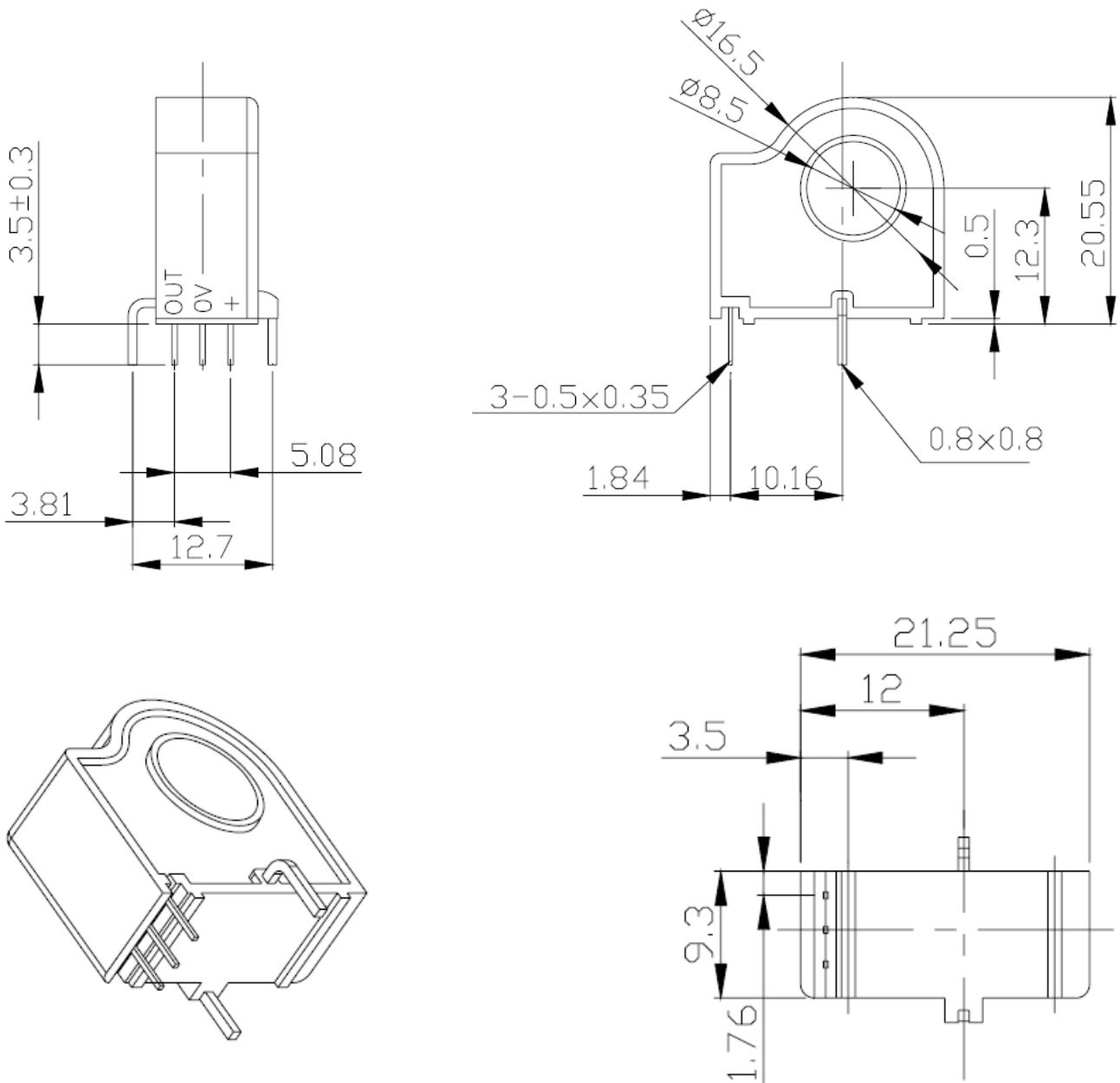
Parameters Table

PARAMETERS	SYMBOL	UNIT	VALUE			CONDITIONS
			Min.	Typ.	Max.	
Electrical data						
Supply voltage(±5%)	V _C	V	4.5	5	5.5	
Current consumption	I _C	mA	-	9.2	12	@ T _A = 25°C
Isolation resistance	R _{IS}	MΩ	4.7	-	-	@ 500 VDC
Output Load Resistance	R _L	KΩ	4.7	-	-	@V _{OUT} to V _{CC}
	R _L	KΩ	4.7	-	-	@V _{OUT} to GND
Output Load Capacitance	C _L	nF	-	-	10	@V _{OUT} to GND
Output voltage	V _{out}	V	V _c /5 (2.5+0.2×I _p)@10A			@T _A = 25° C V _{cc} =5V
			V _c /5 (2.5+0.1333×I _p)@15A			
			V _c /5 (2.5+0.1×I _p)@20A			
			V _c /5 (2.5+0.08×I _p)@25A			
			V _c /5 (2.5+0.0666×I _p)@30A			
Accuracy - Dynamic performance data						
Linearity	ε _L	% of I _{PN}		<±1		@T _A = 25°C
Accuracy (I _{PN} = 10...15A)	X	% of I _{PN}		<±2		@T _A = 25°C
Accuracy (I _{PN} = 20...30A)	X	% of I _{PN}		<±1.5		@T _A = 25°C
Quiescent Output Voltage ⁽¹⁾	V _{OUTQ}	V		2.5±20mV		@T _A = 25°C B=0
Sensitivity Temperature Coefficient	TCS _{ENS}	%/°C		<±0.025		
Output Resistance	R _{OUT}	Ω		<1		
Output Bandwidth	BW	kH		<50		@-3dB
Response time	t _r	μS		>5 And <8		@ 90% of I _{PN}
Rms voltage isolation test	V _d	kV		<2		@AC 50Hz 1Min
General data						
Ambient operating temperature	T _A	°C		-40 ~ +85		
Ambient storage temperature	T _S	°C		-40 ~ +105		
Mass	m	g		300		

Notes:

- 1) The indicated offset voltage is the one after the core hysteresis is removed.

Dimensions SIOPSV1 (in mm. 1 mm = 0.0394 inch)



Instructions of use

- 1) When the test current passes through the sensors you can get the size of the output voltage.(Warning: wrong connection may lead to sensors damage)
- 2) Based on user needs, the sensors output range can be appropriately regulated.
- 3) According to user needs, different rated input currents and output voltages of the sensors can be customized.

RESTRICTIONS ON PRODUCT USE

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