

# Thousand Hundred Industrial Co., Ltd.

# **Hall Current Sensor-TB102-OCS**

I<sub>PN</sub>=200..1000A

For the electronic measurement of currents:DC,AC,pulsed,mixe with a galvanic isolation between the primary(high power) circuit and the secondary(electronic) circuit.







#### Operating performance (AT= 25<sup>o</sup>C)

M	lodel	TB201	TB401	TB601	TB801	TB102
Performance		ocs	ocs	ocs	ocs	ocs
Primary nominal r.m.s. current	I <sub>PN</sub> (A)	200	400	600	800	1000
Primary current measuring range	I <sub>P</sub> (A)	0~±400	0~±800	0~±1200	0~±1600	0~±2000
Supply voltage	$V_{CC}$	±15V (±5%)				
Output voltage	$V_{OUT}$	$4V \pm 1\%$ @± $I_{PN}$ , $R_L$ = 10KΩ				
Current consumption	I <sub>C</sub>	$\leq \pm 15$ mA @ $\pm I_{PN}$				
Offset voltage	Vo	<±20mV @I <sub>P</sub> =0,T <sub>A</sub> =25°C				
Thermal drift of $V_0$	$V_{OT}$	<±0.5mV/°C				
Thermal drift of $V_{OUT}$	TCε <sub>G</sub>	<±0.03%/℃				
Response time	$t_r$	<5µs				
di/dt accurately followed	di/dt	>50A/µs				
Linearity	$\epsilon_{L}$	<±1% @0~±I <sub>PN</sub>				
Accuracy	Χ	$<$ ±1% @I $_{PN}$ , $T_{A}$ =25 $^{\circ}$ C				
Isolation voltage	$V_d$	2.5KV @50(60)HZ/1min				
Isolation resistance	R <sub>IS</sub>	500MΩ @500V <sub>DC</sub>				
Hysteresis offset voltage	$V_{OH}$	$\leq \pm 20$ mV @ $\pm 2$ I <sub>PN</sub> $\rightarrow 0$				
Frequency bandwidth	f	0~25KHz				

#### **General data**

Operating temperature	T <sub>O</sub>	-25∼+85℃
Storage temperature	Ts	-40∼+85℃
Mass	m	265g
Note		Insulated plastic case recognized according to UL 94-V0

#### Applications

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

## Advantages

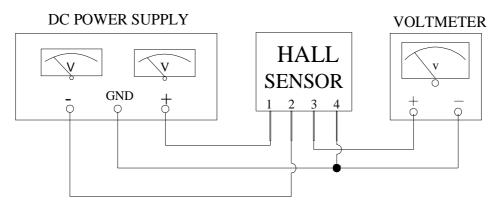
◆Easy mounting

- ◆Small size and space saving
- ◆Only one design for wide current ratings range ◆High immunity to external interference

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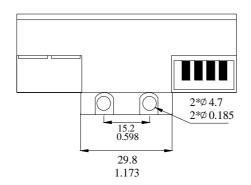
## Connection



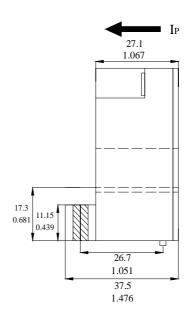
## Dimensions (Unit:mm/inch)

72.2 2.843 OFS GIN 1 4 1.614 55.3 2.177 14.2 0.559

Front View



**Bottom View** 



Right View

Secondary terminals				
Terminal 1	+15V			
Terminal 2	-15V			
Terminal 3	OUTPUT			
Terminal 4	GND			

Tol: ±0.5mm/0.02inch connector of secondary Molex 22-04-1041

#### Remarks

- ♦V<sub>OUT</sub> is positive when I<sub>P</sub> flows in the direction of the arrow.
- ullet Temperature of the primary conductor should not exceed 100  $^{\circ}$ C.
- ◆These are standard models. For different versions(supply voltages, secondary connections, unidirectional measurements, operating temperatures, etc.)please contact us.