

**Speciality Magnetic Components** Qualified to ISO 9001:2008

## **Open Loop Hall Effect Current Transformer Type HOB**



The HOB series are Open Loop Hall Effect Current Transformers covering the range of 25A to 400A. The product provides a voltage output which is galvanically isolated from the primary circuit. All contacts, including the primary are designed to be PCB mounted.

## **Features**

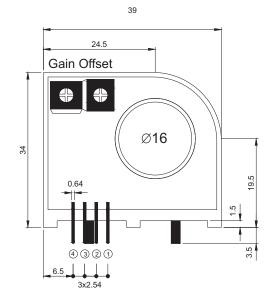
- ◆ Compact and light weight
- ◆ Fast response time
- ◆ Excellent linearity of the output voltage over a wide input range
- ◆ Excellent frequency response (> 50 kHz)
- ◆ Low power consumption (12 mA nominal)
- ♦ Capable of measuring both DC and AC, both pulsed and mixed
- ♦ High isolation voltage between the measuring circuit and the current-carrying conductor (AC2.5KV)
- ◆ Flame-Retardant plastic case and silicone encapsulate, using UL classified materials, ensures protection against environmental contaminants and vibration over a wide temperature and humidity range ◆ Power supply for laser processing machines

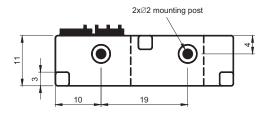
## **Applications**

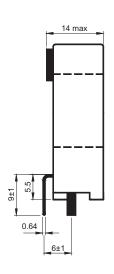
- ♦ UPS systems
- ♦ Industrial robots
- ♦ NC tooling machines
- ◆ Elevator controllers
- ♦ Process control devices
- ♦ AC and DC servo systems
- ♦ Motor speed controller
- ♦ Electrical vehicle controllers
- ◆ Inverter-controlled welding machines
- ♦ General and special purpose inverters
- ◆ Controller for traction equipment e.g. electric trains
- ♦ Other automatic control systems

## **Specifications**

Parameter	Symbol	Unit	HOB 25	HOB 50	HOB 75	HOB 100	HOB 125	HOB 150	HOB 175	HOB 200	HOB 250	HOB 300	HOB 350	HOB 400
Nominal Input Current	I <sub>fn</sub>	A DC	25	50	75	100	125	150	175	200	250	300	350	400
Linear Range	I <sub>fs</sub>	A DC	±75	±150	±225	±300	±375	±450	±525	±525	±550	±550	±550	±600
Nominal Output Voltage	$V_{hn}$	V	4 V±1% at If=I <sub>fn</sub> ( $R_L$ =10 $k\Omega$ )											
Offset Voltage	Vos	mV	Within ±35 mV @ I₁=0, T₂=25°C											
Output Resistance	R <sub>OUT</sub>	Ω	< $100\Omega(50\Omega$ nominal)											
Hysteresis Error	V <sub>oh</sub>	mV	Within ±35 mV @ I <sub>f</sub> =I <sub>fn</sub> →0											
Supply Voltage	V <sub>CC</sub> /V <sub>EE</sub>	V	±15V ±5%											
Linearity ( Within ±I <sub>fn</sub> )	ρ	%	Within ±1% of I <sub>fn</sub>											
Consumption Current	Icc	mA	±12 mA nominal, ±15 mA max											
Response Time (90%V <sub>hn</sub> )	Tr	µsec	7µsec max. @ d I <sub>f</sub> / dt = I <sub>fn</sub> / µsec											
Frequency Bandwidth (-3dB)	$f_{\text{BW}}$	Hz	DC to 50kHz											
Thermal Drift of Output	-	%	Within ±0.05 %/°C @ I <sub>fn</sub>											
Thermal Drift of Zero Current Offset	-	mV/°C	Within ±1.5 mV/°C @ I₅											
Dielectric Strength	-	V	AC2.5KV X 60 sec											
Isolation Resistance @ 1000 VDC	R <sub>IS</sub>	ΜΩ	>1000 MΩ											
Operating Temperature	T <sub>a</sub>	°C	-15°C to 80°C											
Storage Temperature	Ts	°C	-20°C to 85°C											
Mass	W	g	28g											







Pin Out					
1	+15V				
2	-15V				
3	Vоит				
4	0V				