

# **DATA SHEET DC AC Leakage Current Sensor**

## PN: CHD\_SCAC12D5

## **IPN=10~300mA**

### **Feature**

- AC Leakage Current Sensor develops on base of magnetic modulation closed loop principle
- Apply unique patented technology for measure tiny current (mA level) •
- Supply voltage: DC ±12 V •

## Advantages

- High accuracy •
- Easy installation
- Wide current measuring range •
- Optimized response time •
- Low power consumption •
- High immunity to external interference •

## **Applications**

- The current detection of the lift •
- DC panel detection •
- The signal system •
- Current differential detection •
- AC variable-speed drive/ Servo drive •
- UPS and Inverter applications

- Very good linearity
- Can be customized



**RoHS** 



Electrical data:						
	CHD10 SCAC12D5-B	CHD20 SCAC12D5-B	CHD50 SCAC12D5-B	CHD100 SCAC12D5-B	CHD300 SCAC12D5-B	
Rated input Ipn (DC/AC)	±10mA	±20mA	$\pm 50 \text{mA}$	±100mA	±300mA	
Measuring range Ip (DC/AC)	0~±20mA	0~±40mA	0~±100mA	0~±200mA	0~±350mA	
Load impedance (at rated current)	≥10K Ω					
Output voltage Vo(V)	DC terminal M1: 0~±5.0V AC terminal M2: 0~5V					
Supply voltage VC(V)	DC ±12V (±5%)					
Accuracy XG(%)	@IPN,T=25°C ±1%					
Linearity	$\pm 1\%$					
Offset voltage VOE(mV)	<±100mV					
Temperature variation of VOE VOT(mV/°C)			<±3			
Resolution	10uA					
Anti-interference characteristics	@H=50A DC/m		$<\pm 5 mV$			
Power consumption IC(mA)	<20mA					
Insulation voltage	@50/60Hz, 1min 3kV rms					



Cheemi Technology Co., Ltd *Tel: 025-85996365 E-mail: info@cheemi-tech.com* www. cheemi-tech.com Add:N22, Xianlongwan, Xianyin South Road, Qixia District, Nanjing - China.

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General data:				
Parameter	Value			
Operating temperature TA(°C)	-25 ~ +85			
Storage temperature TS(°C)	-25~ +85			
Mass	135g			
Plastic material	PBT G30/G15, UL94- V0;			
	IEC60950-1:2001			
Standards	EN50178:1998			
	SJ20790-2000			

### **Dimensions(mm):**



General tolerance:  $\leq \pm 0.5$ mm

Primary through-hole: D35+0.2mm

#### Instructions:

1. CHD\_SCAC12D5 series leakage current sensors are used for isolation and thru-hole measurement of DC and AC mA micro-currents in a non-contact way. M1 is the output of DC measurements and M2 is the output of AC measurements.

- 2. The output and zero position of the sensor can be adjusted appropriately according to the user's needs.
- 3. AC-GIN is used to adjust AC output value and DC-OFS is used to adjust DC zero.
- 4. The measured AC frequency is 50 Hz.

#### **Remarks:**

- > When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.
- > Custom design is available for the different rated input current and the output voltage.
- > The dynamic performance is the best when the primary hole if fully filled with.
- > The primary conductor should be  $<100^{\circ}$ C.

WARNING : Incorrect wiring may cause damage to the sensor.



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