



# DATA SHEET

## DC Leakage Current Sensor

**PN: CHD\_EB15D5**

**IPN=10~1000mA**

### Feature

- CHD\_EB15D5 series DC leakage current sensor is a series of new device developed according to principle of electromagnetic induction.
- Its low current is stable. It is highly insulating between its primary coil and secondary coil.
- This sensor is used to measure current of signal system, circuit, and leakage monitoring system, as well as to measure current difference.
- Supply voltage: DC  $\pm 12\sim 15$  V

### Advantages

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

- Very good linearity
- Can be customized

### Applications

- The current detection of the lift
- DC panel detection
- The signal system
- Current differential detection
- Smart electric vehicle charging stations
- UPS and Inverter applications



**CE RoHS**

### Electrical data:

Ref	CHD10 EB12D5	CHD20 EB12D5	CHD40 EB12D5	CHD100 EB12D5	CHD200 EB12D5	CHD500 EB12D5	CHD1000 EB12D5
Rated input I <sub>pn</sub> (DC)	10mA	20mA	30mA	40mA	50mA	500mA	1000mA
Measuring range I <sub>p</sub> (DC)	0~±15mA	0~±30mA	0~±45mA	0~±60mA	0~±75mA	0~±750mA	0~±1500mA
Turns ratio(N <sub>p</sub> /N <sub>s</sub> ) (T)	1:50	1:100	1:150	1:200	1:250	1:250	1:250
Rated output voltage	@I <sub>p</sub> =±I <sub>pn</sub> ±5V±1%						
Supply voltage V <sub>cc</sub>	DC±12V~±15V(±5%)						
Current consumption I <sub>c</sub>	20mA+I <sub>p</sub> X(N <sub>p</sub> /N <sub>s</sub> )						
Offset voltage	@I <sub>p</sub> =0 ≤±50mV						
Offset voltage drift	@ -40°C ~ 85°C ≤±1.5mV/°C						
Linearity	@I <sub>p</sub> =0-±I <sub>pn</sub> < 1% FS						
Response time	≤50mS						
Galvanic isolation V <sub>d</sub>	@ 50HZ,AC,1min 2.5KV						



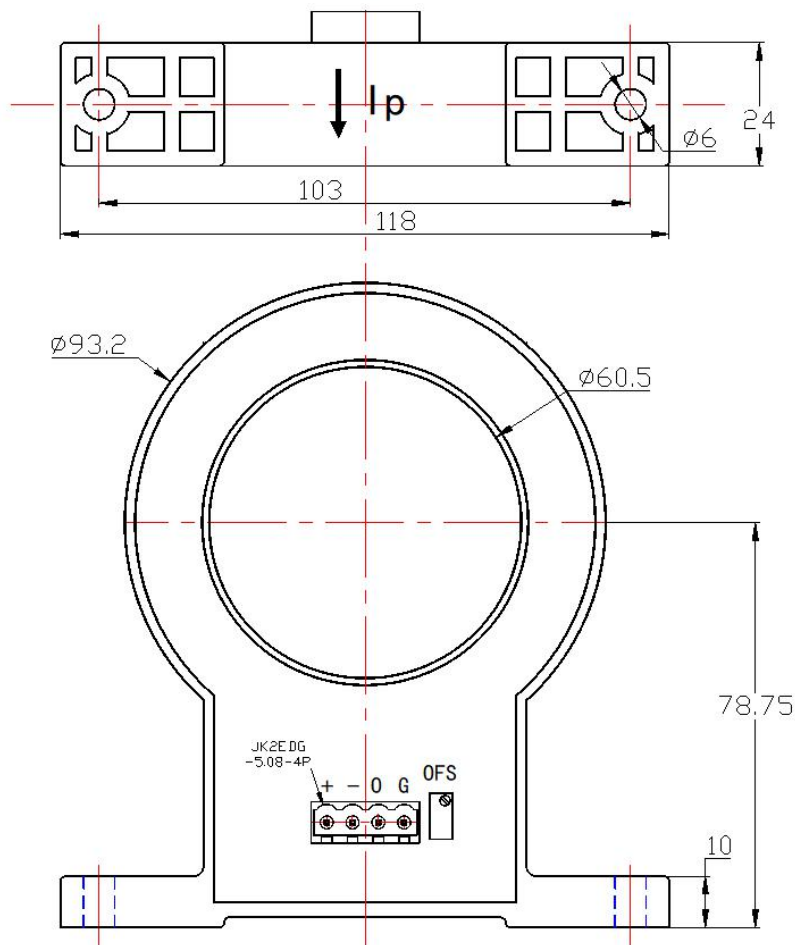
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## General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-40 ~ +125
Mass M(g)	350
Standards	UL94-V0
	EN60947-1:2004
	IEC60950-1:2001
	EN50178:1998
	SJ 20790-2000

## Dimensions(mm):



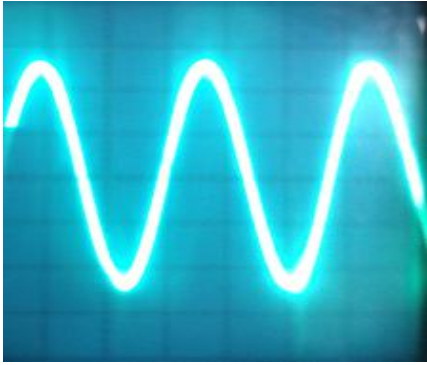
pin	connected
+	+15V
-	-15V
0	OUT
G	GND

All dimensions are in mm.  
 General tolerance:  $< \pm 1$  mm  
 Primary through-hole:  $\phi 60.5$  mm



## Characteristics chart:

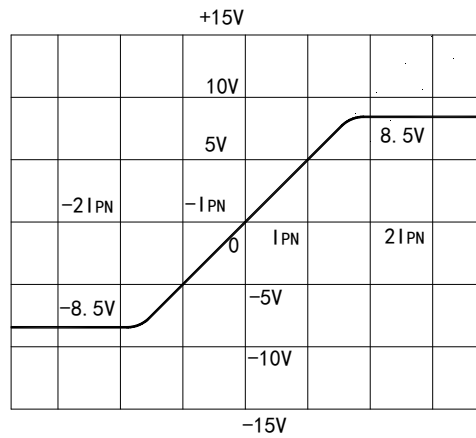
Characteristic of Output Noise Voltage



(Noise voltage)

Input Current-Output Voltage

Primary Current ( $I_p$ ) -- Output (V)



## 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 is fully filled with.
- The primary conductor should be  $<100^{\circ}\text{C}$ .

**WARNING : Incorrect wiring may cause damage to the sensor.**

