

# DATA SHEET

## DC Leakage Current Sensor



**PN: CHD\_LH15D5**

**IPN=05~100mA**

### Feature

- DC 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  $\pm 12\sim 15$  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
- AC variable-speed drive/ Servo drive
- UPS and Inverter applications



RoHS

### Electrical data: ( $T_a=25^\circ\text{C}$ , $V_c = \pm 15\text{VDC}$ , $R_L=10\text{K}\Omega$ )

Parmeter \ Ref	CHD05 LH15D5	CHD10 LH15D5	CHD20 LH15D5	CHD40 LH15D5	CHD50 LH15D5	CHD100 LH15D5
Rated input $I_{pn}$ (mA) DC	05	10	20	40	50	100
Measuring range $I_p$ (mA)	0 $\sim$ $\pm 10$	0 $\sim$ $\pm 20$	0 $\sim$ $\pm 40$	0 $\sim$ $\pm 80$	0 $\sim$ $\pm 100$	0 $\sim$ $\pm 200$
Output voltage $V_o$ (V)	$\pm 5.0 * (I_p / I_{PN})$					
Supply voltage $V_C$ (V)	$(\pm 12 \sim \pm 15) \pm 5\%$					
Accuracy $X_G$ (%)	@ $I_{PN}, T=25^\circ\text{C}$		$\leq \pm 1$			
Offset voltage $V_{OE}$ (mV)	@ $I_p=0, T=25^\circ\text{C}$		$< \pm 30$			
Temperature variation of $V_{OE}$ $V_{OT}$ (mV/ $^\circ\text{C}$ )	@ $I_p=0, -20 \sim +80^\circ\text{C}$		$\leq \pm 1.5$			
Hysteresis offset voltage $V_{OH}$ (mV)	@ $I_p=0$ , after $1 * I_{PN}$		$\leq \pm 30$			
Linearity error $\varepsilon_r$ (%FS)	$\leq 1.0$					
Response time $t_{ra}$ (ms)	@90% of $I_{PN}$		$\leq 20$			
Power consumption $I_C$ (mA)	$15 + I_s$					
Bandwidth $BW$ (KHZ)	@-3dB, $I_{PN}$		DC			
Insulation voltage $V_d$ (KV)	@50/60Hz, 1min, AC		3.0			

## General data:

Parameter	Value
Operating temperature TA(°C)	-20 ~ +80
Storage temperature TS(°C)	-40 ~ +85
Mass M(g)	75
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

## Dimensions(mm):

Connection

端子说明		
+	1	+15V
-	2	-15V
M	3	Out
G	4	GND

General tolerance

General tolerance: <math>\leq \pm 0.5\text{mm}</math>  
 Primary through-hole:  $D20 \pm 0.15\text{mm}$   
 Secondary pin: 2EDG5.08-04P

## 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.**