



# DATA SHEET

## DC Leakage Current Sensor

**PN: CHD\_LCT15D5**

**IPN=10~100mA**

### 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: ( $T_a=25^\circ\text{C}$ , $V_c=\pm 15\text{VDC}$ )

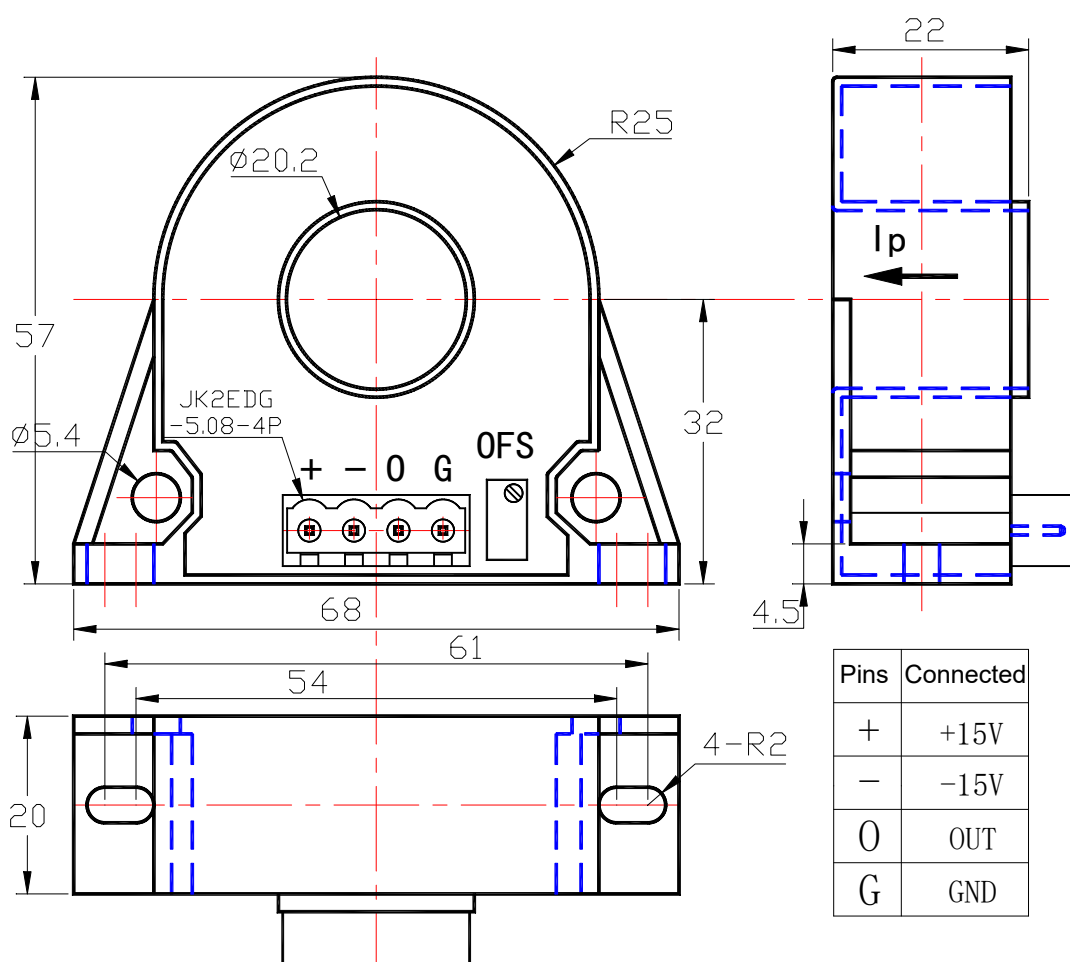
Parmeter Ref	CHD10 LCT15D5	CHD20 LCT15D5	CHD30LC T15D5	CHD40L CT15D5	CHD50L CT15D5	CHD100 LCT15D5
Rated input $I_{pn}$	$\pm 10\text{mA DC}$	$\pm 20\text{mA DC}$	$\pm 30\text{mA DC}$	$\pm 40\text{mA DC}$	$\pm 50\text{mA DC}$	$\pm 100 \text{mA DC}$
Measuring range $I_p$	$0 \sim \pm 15\text{mA}$	$0 \sim \pm 30\text{mA}$	$0 \sim \pm 45\text{mA}$	$0 \sim \pm 60\text{mA}$	$0 \sim \pm 75\text{mA}$	$0 \sim \pm 150\text{mA}$
Turns ratio( $N_p/N_s$ ) (T)	1:50	1:100	1:150	1:200	1:250	1:400
Output voltage $V_o(V)$	@ $I_p = \pm I_{pn}$ $\pm 5 \pm 0.5\%$					
Supply voltage $V_C(V)$	$(\pm 12 \sim \pm 15) \pm 5\%$					
Accuracy $XG(\%)$	@ $IPN, T=25^\circ\text{C}$ $\leq \pm 1$					
Offset voltage $VOE(mV)$	@ $IP=0, T=25^\circ\text{C}$ $< \pm 50$					
Offset voltage drift $VOT(mV/^\circ\text{C})$	@ $IP=0, -40 \sim +85^\circ\text{C}$ $\leq \pm 1.5$					
Linearity error $\varepsilon_r(\%FS)$	$\leq 1.0$					
Response time $\tau_{ra}(mS)$	$\leq 60$					$\leq 35$



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Consumption current (mA)	20+IpX(Np/Ns)	
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	2.5
<b>General data:</b>		
<b>Parameter</b>	<b>Value</b>	
Operating temperature TA(°C)	-40 ~ +85	
Storage temperature TS(°C)	-40~ +125	
Mass M(g)	99	
Plastic material	PBT G30/G15, UL94- V0;	
Standards	IEC60950-1:2001	
	EN50178:1998	
	SJ20790-2000	

**Dimensions(mm):**



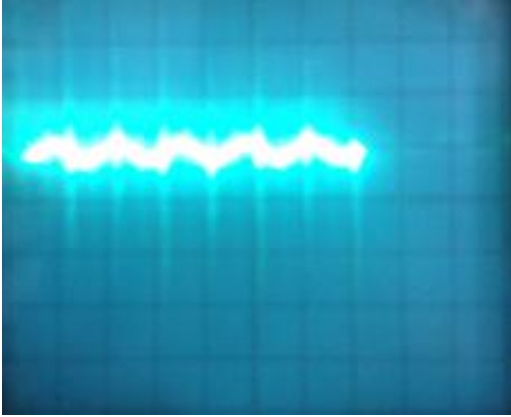
General tolerance: <math>\pm 0.5\text{mm}</math>

Primary through-hole:  $D20.2 \pm 0.15\text{mm}$



## Characteristics chart:

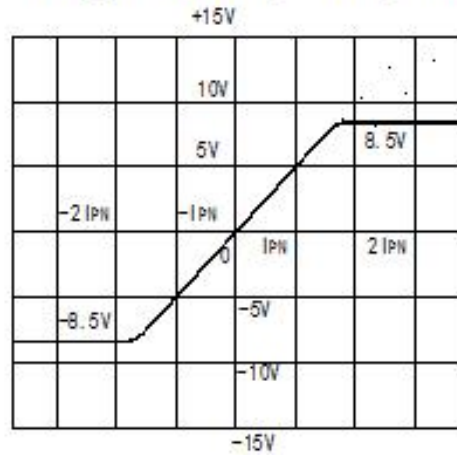
Characteristic of Output Noise Voltage



输出噪声电压  
(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.**



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