



# DATA SHEET

## DC Leakage Current Sensor

**P/N: CHD\_LCT15D5**

**I<sub>PN</sub>=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)
- 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
- AC variable-speed drive/ Servo drive
- UPS and Inverter applications



RoHS

### Electrical data: (Ta=25°C, Vc= $\pm 15$ VDC)

Parameter Ref	CHD10 LCT15D5	CHD20 LCT15D5	CHD30L CT15D5	CHD40L CT15D5	CHD50L CT15D5	CHD100 LCT15D5	CHD1000 LCT15D5
Rated input I <sub>pn</sub>	$\pm 10$ mA DC	$\pm 20$ mA DC	$\pm 30$ mA DC	$\pm 40$ mA DC	$\pm 50$ mA DC	$\pm 100$ mA DC	$\pm 1000$ mA DC
Measuring range I <sub>p</sub>	0~ $\pm 15$ mA	0~ $\pm 30$ mA	0~ $\pm 45$ mA	0~ $\pm 60$ mA	0~ $\pm 75$ mA	0~ $\pm 150$ mA	0~ $\pm 1500$ mA
Turns ratio(N <sub>p</sub> /N <sub>s</sub> ) (T)	1:50	1:100	1:150	1:200	1:250	1:400	1:400
Output voltage V <sub>o</sub> (V)	@I <sub>p</sub> = $\pm$ I <sub>pn</sub> $\pm 5 \pm 0.5\%$						
Supply voltage V <sub>c</sub> (V)	( $\pm 12 \sim \pm 15$ ) $\pm 5\%$						
Accuracy X <sub>G</sub> (%)	@I <sub>PN</sub> , T=25°C $\leq \pm 1$						
Offset voltage V <sub>OE</sub> (mV)	@I <sub>P</sub> =0, T=25°C $< \pm 50$						
Offset voltage drift V <sub>Or</sub> (mV/°C)	@I <sub>P</sub> =0, -40 ~ +85°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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## Characteristics chart:

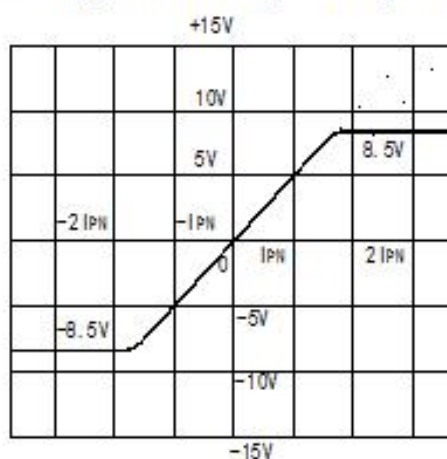
Characteristic of Output Noise Voltage



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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