

DATA SHEET

Closed-loop DC Leakage Current Sensor

PN: CHD_ES15D5

IPN=20/200/500mA

Feature

- DC leakage current sensor using the Flux-gate principle
- Capable measurement of tiny DC current signal, with galvanic separation between primary circuit and secondary circuit
- Supply voltage: DC $\pm 12 \sim 18 \text{ V}$

Advantages

- Easy installation
- Only one design for wide current ratings range
- Low power consumption
- High immunity to external interference

Applications

- The current detection of the lift
- DC panel detection
- The signal system
- Current differential detection







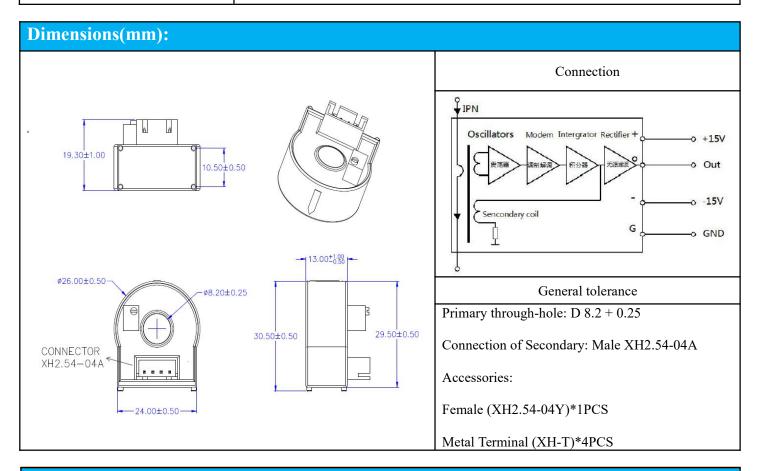
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Electrical data: (Ta=25°C, Vc= \pm 15VDC,RL=10K Ω)				
Ref Parmeter	CHD20ES15D5	CHD200ES15D5	CHD500ES15D5	
Rated input Ipn(mA) DC	20	200	500	
Measuring range Ip (mA)	0~±28	0~±280	0~±700	
Output voltage Vo(V)		±5.0*(IP/IPN),DC		
Load resistance $R_L(K\Omega)$		>10		
Supply voltage VC(V)		(±12 ∼±18) ±5%		
Accuracy XG(%)	@IPN,T=25°C	\leq ± 2.0		
Offset voltage VOE(V)	@IP=0,T=25°C	<±0.3		
Temperature variation of VOE VOT (V/°C)	@IP=0,-40 ~ +85°C	<±0.8		
Hysteresis offset voltage VOH(mV)	@IP=0,after 1*IPN	≤±25		
Linearity error εr(%FS)		<1.0		
Response time tra(ms)	@90% of IPN	<200		
Power consumption IC(mA)		15+Is		
Bandwidth BW(KHZ)	@-3dB,IPN	DC		
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	3.0		



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General data:			
Parameter	Value		
Operating temperature TA(°C)	- 20 ∼ +85		
Storage temperature TS(°C)	- 40∼ +125		
Mass M(g)	13		
Plastic material	PBT G30/G15, UL94- V0;		
	IEC60950-1:2001		
Standards	EN50178:1998		
	SJ20790-2000		



Remarks:

- ➤ 1. Setting the jump value of the door valve is about 1.3V.
- ≥ 2. The primary current is 10mA, that is to say, if the primary current is 2mA, 5 T or more will be needed.
- 3. When environment (temperature) offset + normal temperature zero offset is 1.1V, @10mA, the sensor output is 2.5V (relative zero output), then the actual voltage output is 2.5V-1.1V = 1.4V > 1.3V, the product will jump trigger, but in fact the maximum offset will not exceed 0.8V.
- ➤ 4. When the ambient (temperature) offset + normal temperature zero offset is greater than 0, the output of the sensor is 2.5V (relative zero output) at 10mA, and the actual output of the voltage is 2.5V + positive >= 2.5V > 1.3V, the jump trigger will occur.
- > 5. All environmental impacts and product self-effects can be avoided through the above-mentioned settings.

WARNING: Incorrect wiring may cause damage to the sensor.

