



# DATA SHEET

## DC Leakage Current Sensor

**PN: CHFK10LTD15D4C-S1**

**I<sub>PN</sub>=10A**

### Feature

- DC Leakage Current Sensor develops on base of the Flux-gate principle
- For the electronic measurement of currents: small DC single, with galvanic separation between primary circuit and secondary circuit
- Supply voltage: DC  $\pm 12 \dots 15V$

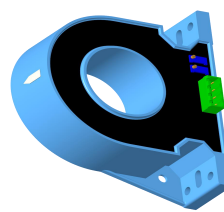
### Advantages

- Easy installation
- Low power consumption
- 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



RoHS



**Electrical data: (T<sub>a</sub>=25°C, V<sub>c</sub>=±15VDC, R<sub>L</sub>=10KΩ)**

Parmeter \ Ref	CHFK10LTD15D4C-S1
Rated input I <sub>pn</sub> (mA) DC	10
Measuring range I <sub>p</sub> (A)	0~±12
Output current I <sub>o</sub> (mA)	@I <sub>p</sub> , T=25°C 4.0±16.0*I <sub>p</sub> /I <sub>PN</sub>
Load resistance R <sub>L</sub> (Ω)	>300
Supply voltage V <sub>c</sub> (V)	(±12~±15) ±5%
Accuracy X <sub>G</sub> (%)	@I <sub>PN</sub> , T=25°C ≤ ±1.0
Offset current I <sub>OE</sub> (mA)	@I <sub>p</sub> =0, T=25°C <±0.2
Temperature variation of I <sub>OE</sub> I <sub>OT</sub> (mA/°C)	@I <sub>p</sub> =0, -40 ~ +85°C ≤ ±0.005
Hysteresis offset current I <sub>OH</sub> (mA)	@I <sub>p</sub> =0, after 1*I <sub>PN</sub> ≤ 0.05
Linearity error ε <sub>r</sub> (%FS)	≤1.0
Response time τ <sub>ra</sub> (ms)	@90% of I <sub>PN</sub> ≤300
Power consumption I <sub>c</sub> (mA)	15+I <sub>o</sub>
Bandwidth BW(KHZ)	@-3dB, I <sub>PN</sub> DC



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Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	3.0
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## General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-40~ +125
Mass M(g)	65
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

## Dimensions(mm):

Technical drawings showing dimensions (mm):

- Top view:  $\phi 5,20$ ,  $6,20$ ,  $20,80$ ,  $90,80$ ,  $103,20$
- Front view:  $\phi 90,00$ ,  $\phi 45,00$ ,  $57,00$ ,  $85,60$ ,  $120,00$ ,  $18,50$
- Side view:  $34,00$ ,  $33,00$ ,  $102,00$

### Connection

Block diagram showing internal components: IPN, Oscillators, Modem, Intergrator, Rectifier, Secondary coil, and output terminals (+15V, Out, -15V, GND).

### General tolerance

General tolerance:  $< \pm 1.0\text{mm}$   
Primary through-hole:  $D45.0 \pm 0.5$   
Connection of Secondary : 2EDG5.08-04P

## Remarks:

- When the current will be measured goes through the primary pin of a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage the sensor).
- Custom design in the different rated input current and the output voltage are available.
- The dynamic performance is the best when the primary hole if 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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