# DATA SHEET
# Hall Effect Current Sensor

**PN: CHK_QD35S2L** | **$I_{PN}$=400-1000A**

## Feature

- Open- loop
- Capable measurement of currents: DC, AC, pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC +5.0V
- Automotive grade hall chip.

## Advantages

- Small size, space saving
- Easy installation
- Optimized response time, no insertion losses
- High immunity to external interference

## Applications

- Electric vehicle
- AC variable frequency governor
- DC motor driven static converter
- Communication power supply
- Uninterruptible power supply
- Switching Mode Power Supply
- Application of welding machine power supply

CE RoHS

**Electrical data：（Ta=25°C，Vc=+5.0VDC,RL=10.0KΩ）**

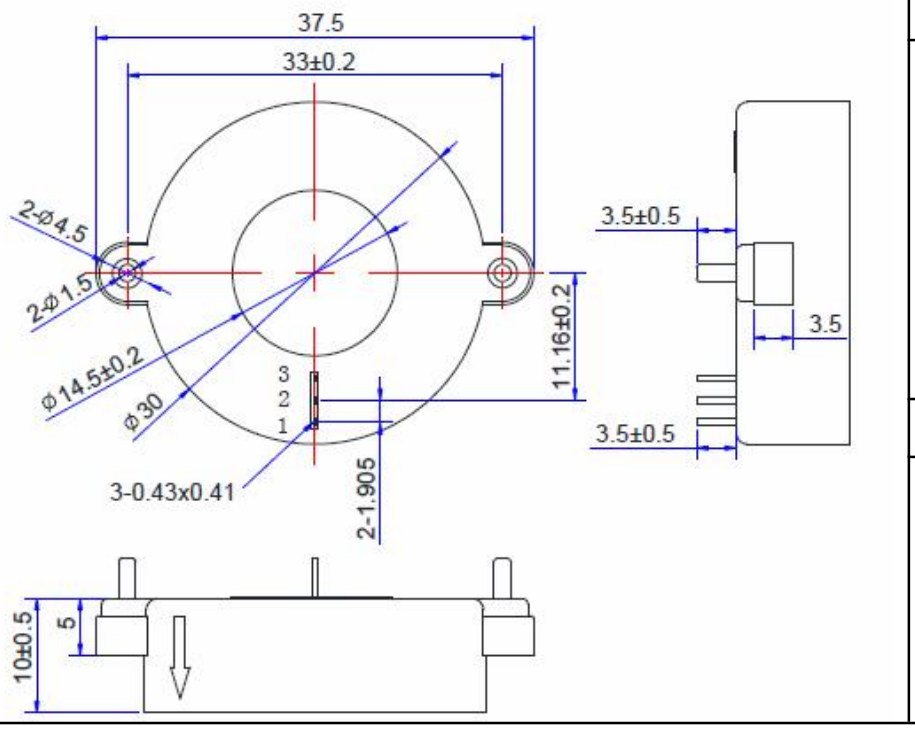
| Parameter Ref | CHK400 QD35S2L | CHK500 QD35S2L | CHK600 QD35S2L | CHK700 QD35S2L | CHK800 QD35S2L | CHK900 QD35S2L | CHK1000 QD35S2L |
|---|---|---|---|---|---|---|---|
| Rated input Ipn(A) | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| Measuring range Ip(A) | 0~±400 | 0~±500 | 0~±600 | 0~±700 | 0~±800 | 0~±900 | 0~±1000 |
| Rated measurement output (V) | $V_C$/2±2V | | | | | | |
| Output offset voltage Vo(V) | $V_C$/2±0.025 | | | | | | |
| Load resistance $R_L$ (kΩ) | ≥ 4.7 | | | | | | |
| Power supply voltage (V) | +5V (± 5%) | | | | | | |
| Current consumption $I_C$ (mA) | ≤10 | | | | | | |
| Accuracy $X_G$(%) | ≤1 (-40℃~ +105℃) | | | | | | |
| | ≤1.5 (+105℃~ +125℃) | | | | | | |
| Linearity error εr(%FS) | ≤1 | | | | | | |
| Zero offset voltage coefficient $TCV_{OE}$ (mV/°C) | ≤±0.15 | | | | | | |
| Output voltage temperature coefficient $TCV_{out}$ (%/°C) | ≤±0.05 | | | | | | |
| Di/dt accurately followed （A/μs） | > 100 | | | | | | |

| | |
|---|---|
| Response time $t_{ra}$(μs) | ≤7 |
| Bandwidth (-3db) Bw(KHZ) | DC-17 |
| Withstand voltage between primary circuit and secondary circuit Vd(KV) | @50Hz/60s/0.1mA 3.0 |

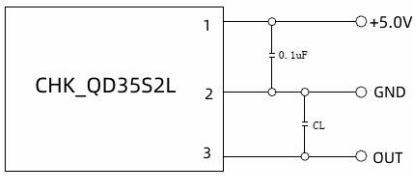
## General data:

| Parameter | Value |
|---|---|
| Operating temperature $T_A$(°C) | -40 ~ +125 |
| Storage temperature $T_S$(°C ) | -55~ +125 |
| Mass M(g ) | 22 |
| Standards | High and low temperatures meet the testing requirements of EN50178 standard 9.4.2.1. |
| | Damp heat meets the testing requirements of EN50178 standard 9.4.2.2. |
| | Vibration meets the testing requirements of EN50178 standard 9.4.3.2. |
| | Electromagnetic compatibility meets the testing requirements of EN50178 standard 9.4.6.1 and 9.4.6.2. |

## Dimensions(mm):




Connection




1. +5.0V
2. GND
3. OUT

General tolerance

General tolerance:< ±0.5mm

Primary through-hole：D 14.5± 0.2mm

## Remarks:

- When the current to be measured flows through the input pin of the sensor, it can be measured at the output end measure the magnitude of the current.
- Dynamic performance (di/dt and noise) when the busbar is fully filled with primary perforation
- Different rated input current and output voltage can be customized according to user requirements the sensor.

**WARNING : Incorrect wiring may cause damage to the sensor.**