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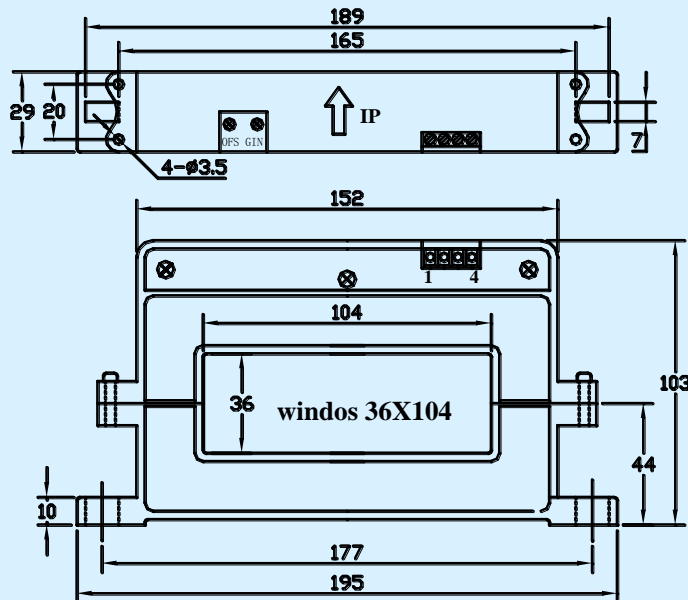
# CS5000KA Hall-effect Current Sensor Series



Open loop current sensor based on the principle of Hall-effect. It can be used for measuring AC,DC,pulsed and mixed current.

| Electrical characteristics |                                    |                                  |          |          |          |         |       |
|----------------------------|------------------------------------|----------------------------------|----------|----------|----------|---------|-------|
| Type                       | CS600KA                            | CS1000KA                         | CS2000KA | CS3000KA | CS5000KA |         |       |
| $I_{PN}$                   | Primary nominal input current      | 600                              | 1000     | 2000     | 3000     | 5000    | A     |
| $I_P$                      | Measuring range of primary current | 0~±1200                          | 0~±2000  | 0~±4000  | 0~±6000  | 0~±7500 | A     |
| $V_{OUT}$                  | Nominal output voltage             | 4±1%                             |          |          |          |         | V     |
| $V_C$                      | Supply voltage                     | ±12~±15(±5%)                     |          |          |          |         | V     |
| $I_C$                      | Current consumption                | $V_C=±15V$                       | <25      |          |          |         | mA    |
| $V_D$                      | Insulation voltage                 | AC/50Hz/1min                     | 6        |          |          |         | kV    |
| $\epsilon_L$               | Linearity                          | <1                               |          |          |          |         | %FS   |
| $V_O$                      | Offset voltage                     | $T_A=25^\circ C$                 | <±25     |          |          |         | mV    |
| $V_{OM}$                   | Residual voltage                   | $I_{PN}\rightarrow 0$            | <±30     |          |          |         | mV    |
| $V_{OT}$                   | Thermal drift of $V_0$             | $I_P=0$ $T_A=-25\sim+85^\circ C$ | <±1      |          |          |         | mV/°C |
| $T_R$                      | Response time                      | ≤7                               |          |          |          |         | μs    |
| f                          | Frequency bandwidth(-3dB)          | DC~3                             |          |          |          |         | kHz   |
| $T_A$                      | Ambient operating temperature      | -25~+85                          |          |          |          |         | °C    |
| $T_S$                      | Ambient storage temperature        | -40~+100                         |          |          |          |         | °C    |
| $R_L$                      | Load resistance                    | ≥10                              |          |          |          |         | KΩ    |
| Standard                   |                                    | Q/3201CHGL02-2007                |          |          |          |         |       |

## Dimensions of drawing (mm)



Elucidation: 1:+15V 2:-15V 3:  $V_{OUT}$  4:0V(GND) OFS:Zero adjustment GIN:Gain adjustment  
 ( Red:+15V Blue:-15V Yellow: $V_{OUT}$  Black:0V )

## Remarks

Incorrect connection may lead to the damage of the sensor.  
 $V_{out}$  is positive when the  $I_P$  flows in the direction of the arrow.