Split Core Hall Effect DC Current Sensor CYHCT-S4

The sensor CYHCT-S4 is a split core Hall Effect sensor for the measurement of DC current. The sensor has a galvanic isolation between the high power primary and the secondary electronic circuits with current output and voltage output.

Features and Advantages	Applications
• DC current measurement • Split core • Output (0-20mA, 4-20mA, 0-5V, 0-10V DC) • DIN Rail mounting, easy to mount • High isolation between primary and secondary circuits • No insertion losses	• Battery banks, such as, monitoring load current and charge current, verifying operation • Transportation, measuring traction power or auxiliary loads • Phase fired controlled heaters • Directly connect to PLC • Sense motor stalls and short circuits • Industrial instrumentation

Specifications

Rated input current	30A,50A,80A,100A,150A,200A,250A,300A
Output signal	0-5V, 0-10V, 0-20mA, 4-20mA etc.
Power supply	+12V DC, +15V DC, +24V DC
Measuring accuracy	1.0%
Linearity	≤±0.75%FS
Zero offset voltage	±20mV
Hysteresis error	±10mV
Thermal drift of offset current	≤500 ppm/°C
Galvanic isolation	2.5 kV DC, 1min
Response time	≤200ms
Overload capacity	20 times
Quiescent power consumption	550mW ~ 600mW
Mounting	Din rail/screw
Case style and Window size	S4 with aperture Ø31mm
Operating temperature	-10°C ~ +60°C
Storage temperature	-25°C ~ + 70°C
Relative humidity	10% ~ 90%
Mean Time Before Failure (MTBF)	≥ 100k hours

Definition of Part number:

CYHCT	-	S4	-	M	-	x	n
(1)		(2)		(3)		(4)	(5)

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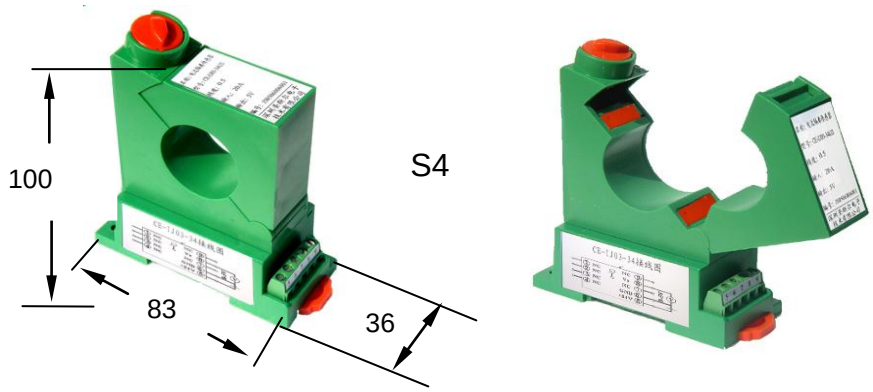
(1)	(2)	(3)	(4)	(5)
Series name	Case style	Rated Input current (M=U/B + m)	Output signal	Power supply
CYHCT	S4	m = 30A, 50A, 80A, 100A, 150A, 200A, 250A, 300A	**x=3:** 0-5V DC **x=4:** 0-20mA DC **x=5:** 4-20mA DC **x=8:** 0-10V DC	n**=2:** +12V DC n**=3:** +15V DC n**=4:** +24V DC

U: unipolar input current; **B:** bipolar input current

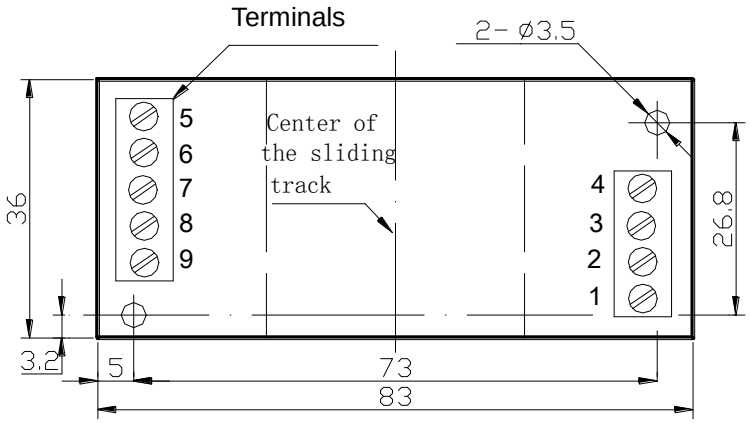
Example 1: CYHCT-S4-U100A-34, Split core Hall Effect DC Current sensor with
Output signal: 0-5V DC
Power supply: +24V DC
Rated input current: 0-100A DC (unipolar)

Example 2: CYHCT-S4-B100A-84, Split core Hall Effect DC Current sensor with
Output signal: 0-10V DC
Power supply: +24V DC
Rated input current: -100A ~ +100ADC (bipolar)

DIMENSIONS (mm)



Dimensions: 100mm x 83mm x 36mm
Aperture: Ø31 mm



Mounting Dimensions

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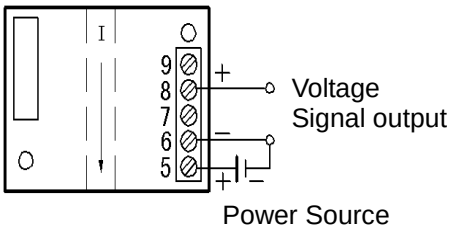
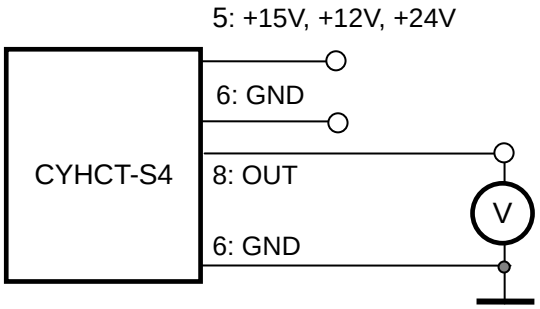
CONNECTION

The current carrying cable must pass through the window. The phase of output is the same as that of the current passing the window in the direction of the arrow indicated on the case.

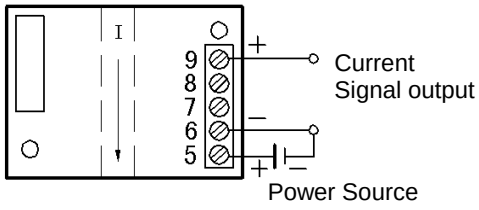
Wiring of Terminals for voltage output:

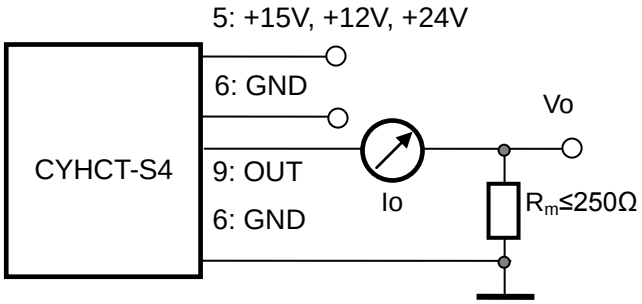




5: +15V, +12V, +24V Power Supply 6: GND 8: Voltage output

Wiring of Terminals for Current Output:





5: +15V, +12V, +24V Power Supply 6: GND 9: Current output

Notice:

1. If you want to open/ close the split core, press and move the orange bolt to the open/close direction

2. The conductor carrying the input current should pass through the center of the aperture as perpendicularly as possible. And then lock the bolt.

3. Make sure that the polarities are in right connection. The output and the power supply must be common grounded at terminal 6.

4. If a meter is used to calibrate the output of the transducer, please make sure that the accuracy of the meter is higher than the transducer.

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