ChenYang
Technologies GmbH & Co. KG

DC Current Sensor CYCT01-xnH2

The **CYCT01-xnH2** DC Current sensor adopts the modulation and demodulation isolation principle to measure the pulsating DC current in the grid or circuit in real time and convert it into standard DC voltage and current outputs, with high accuracy, high isolation, low drift and wide temperature range. The product uses 85V~265V AC/DC power supply and three isolations between power supply, input and output terminals, so it can be directly mated with various types of A/D converters to form a centralized data acquisition system. The product is suitable for real-time testing of electric power systems, post and telecommunications systems, railway monitoring systems, etc.

Specifications

Rated input current DC	1mA, 5mA, 10mA, 50mA, 100mA, 500mA, 1A, 2A, 3A, 4A, 5A DC		
Linear measuring range	0 - 1.2 times of rated input current		
Overload capacity	10 times of rated input current, 1s, time interval 300s, 5 times		
Input response	Uni-directional DC and DC impulse currents		
Input resistance	R_i=0.05V / I_x, I_x : Input current		
Output signals DC	0-5VDC, 0-10VDC, 0-20mA, 4-20mA DC		
Measuring accuracy	Voltage output: 0.2%FS; current output 0.5%FS		
Load capacity	Current output: 300Ω (6V); voltage output: 10mA		
Response time	≤350ms		
Thermal drift	200ppm/°C		
Power supply	AC/DC: 85V~265V		
Static current	Voltage output: 20mA; Current Output: 23-27mA		
Isolation	Isolation between input and output and power supply		
Isolation withstanding voltage	2.5 kV DC, 1min for Input-Output and power supply – Input, 1.5kV DC, 1min for power supply - output		
Operating temperature	-25°C ~ +70°C		
Storage temperature	-25°C ~ + 70°C		
Output ripple	<35mV (when the output load is 250Ω)		
Electromagnetic compatibility:	Surge: 1kV, Electrostatic discharge: 6KV/8KV Electric Fast transient pulse Group: 2kV		
Material of Case	ABS (According to UL94V-0)		
Mounting	DIN Rail	Case style	H2 without aperture
MTBF	50000h	Safe Standard	IEC61010-1
Protection of Case	IP20	Unit weight	150g

Definition of Part number:

CYCT01	-	x	n	H2	-	0.2	-	m
(1)		(2)	(3)	(4)		(5)		(6)

(1)	(2)	(3)	(4)	(5)	(6)
Series name	Output signal	Power supply	Case style	Accuracy class	Input current range (m)
CYCT01	**x=3:** 0-5V DC **x=4:** 0-20mA DC **x=5:** 4-20mA DC **x=8:** 0-10V DC	n**=8:** 85V~265VAC n**=9:** +85V~265VDC	H2	0.2% 0.5%	1mA, 5mA, 10mA, 50mA, 100mA, 500mA, 1A, 2A, 3A, 4A, 5ADC

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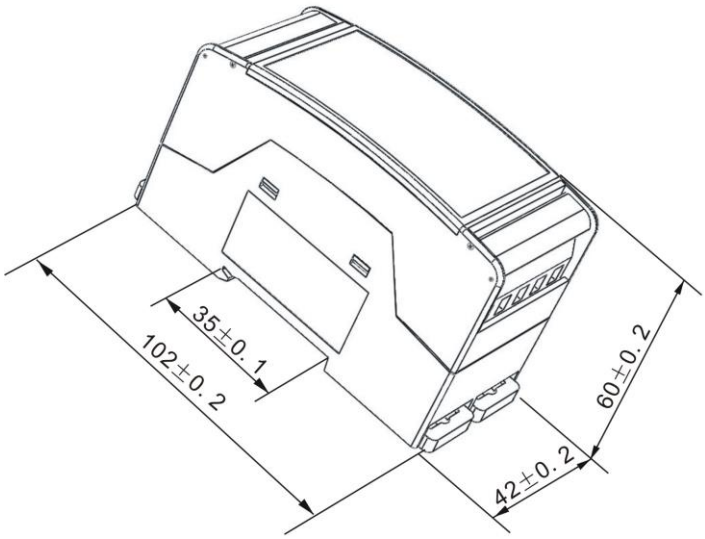
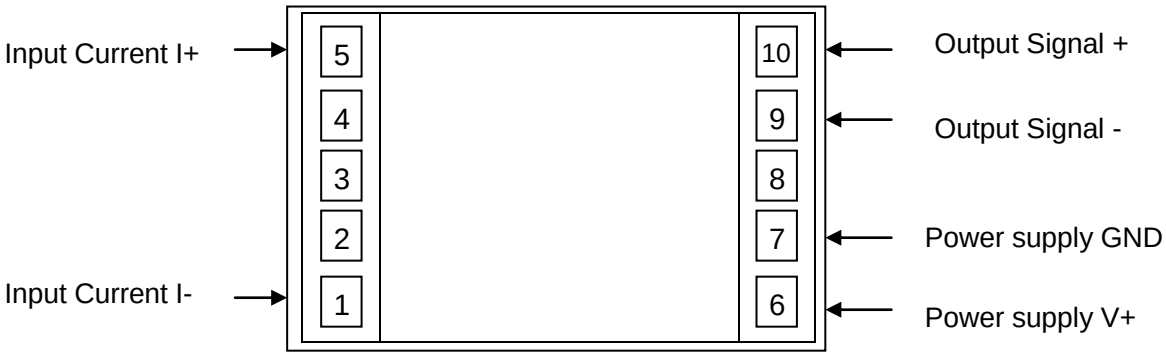
Example 1: CYCT01-38H2-0.2-100mA, DC Current sensor with
Output signal: 0-5V DC
Power supply: 85V~265V AC
Rated input current: 0-100mA DC

Example 2: CYCT01-59H2-0.5-100mA, DC Current sensor with
Output signal: 4-20mA DC
Power supply: +85V~265V DC
Rated input current: 0 -100mA DC

DIMENSIONS (mm)



Dimensions: 102mm x 42mm x 60mm



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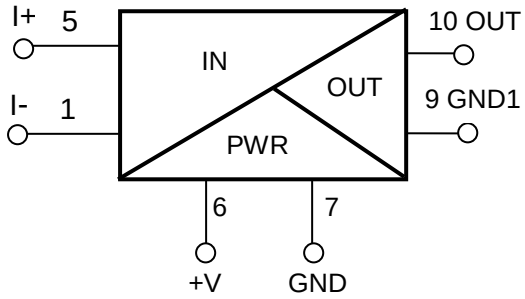
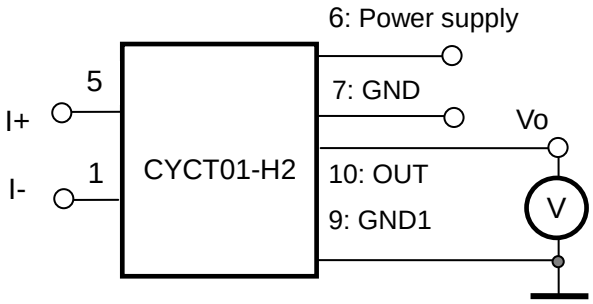
CONEECTIONS

Wiring of Terminals for voltage output:



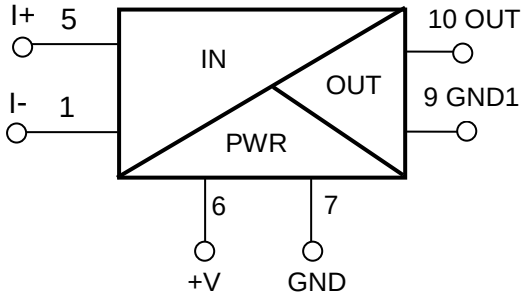


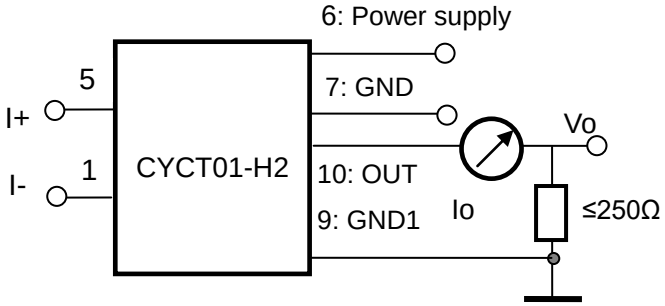
1, 5: Input Current; 6: Power Supply 7, 9: GND 10: Voltage Output

Relation between Input and Output:

Sensor CYCT01-38H2-0.2-100mA	
Input current (mA)	Output voltage (V)
0	0
25	1.25
50	2.5
75	3.75
100	5

Wiring of Terminals for Current Output:





1, 5: Input Current; 6: Power Supply 7, 9: GND 10: Current Output

Relation between Input and Output (for R_m=250 Ω):

Sensor CYCT01-59H2-0.5-100mA		
Input current (mA)	Output current Io(mA)	Output voltage Vo (V)
0	4	1
25	8	2
50	12	3
75	16	4
100	20	5

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