ChenYang
Technologies GmbH & Co. KG

AC/DC Current Sensor CYCS-xnS0

The **CYCS-xnS0** AC/DC current sensor/transducer works according to Linear Photoelectrical Isolation and is designed for applications to the measurement and monitoring of AC/DC current and DC impulse current. The output signal of this transducer is tracing voltage or AC/DC voltage, which is proportional to the input AC/DC current. They are suitable for measurements and long-time monitoring of DC, AC and impulse currents.

Specifications

Rated input current	1mA, 5mA, 10mA, 50mA, 100mA, 500mA, 1A, 2A, 3A, 4A, 5A (DC calibration, option: AC calibration)		
Linear measuring range	0 - 1.2 times of rated input current		
Overload capacity	10 times of rated input current, sustained for 1 second, with a 300-second interval, repeated 5 times		
Input frequency	±DC, 20Hz ~ 10kHz		
Input resistance	R_i=0.05V / I_x, I_x: Input current		
Output signals	Tracing output ±5V, 0-5V, 0-10V		
Measuring accuracy	±0.2%	Thermal drift	160ppm/°C
Load capacity	5mA	Response time	≤15μs
Power supply	±12VDC, ±15VDC	Static current	30mA
Isolation	Isolation between input and output, power supply at the output		
Isolation withstanding voltage	2.5 kV DC, 1min, leakage current 1mA		
Surge (Impulse) Immunity	GB/T 17626.5, Level 2, 1kV		
Electrostatic Discharge Immunity	GB/T 17626.2 Contact or Air Discharge Level 2, 4kV		
Electrical Fast Transient Burst Immunity	GB/T 17626.4, Signal Port Level 3, 1kV; Power Port Level 2, 1kV		
Operating temperature	-25°C ~ +70°C	Storage temperature	-40°C ~ + 85°C
Relative humidity	10% ~ 90%	Protection of Case	IP20
Mounting	DIN Rail 35mm	MTBF	50000h
Material of Case	ABS (according to UL94V-0)		
Case Style	S0 without aperture		
Unit weight	90g		

Definition of Part number:

CYCS	-	x	n	S0	-	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)
CYCS	**x=1:** ±5V AC/DC **x=3:** 0-5V AC/DC	n**=5:** ±12V DC n**=6:** ±15V DC	S0	0.2%	1mA, 5mA, 10mA, 50mA, 100mA, 500mA, 1A, 2A, 3A, 4A, 5A
	x=8: 0-10V AC/DC	n**=6:** ±15V DC			

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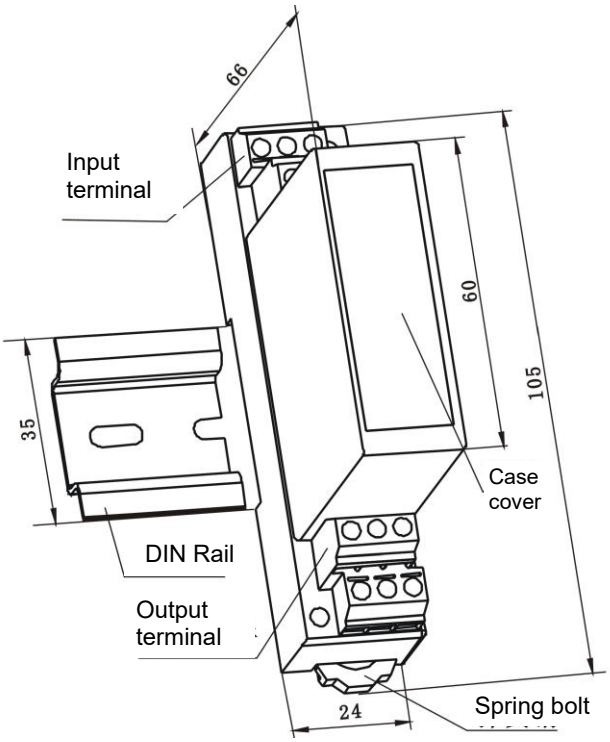
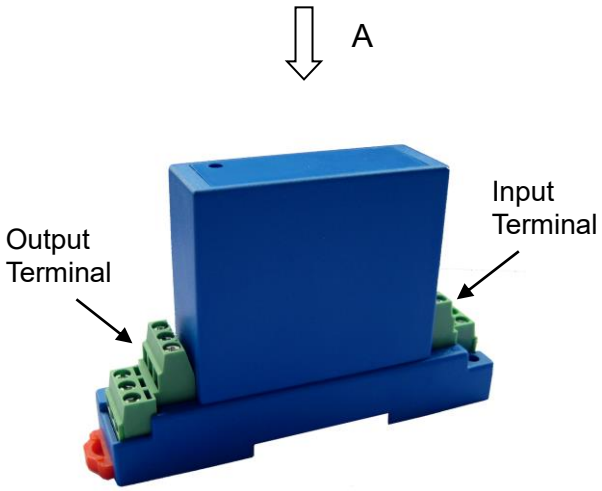
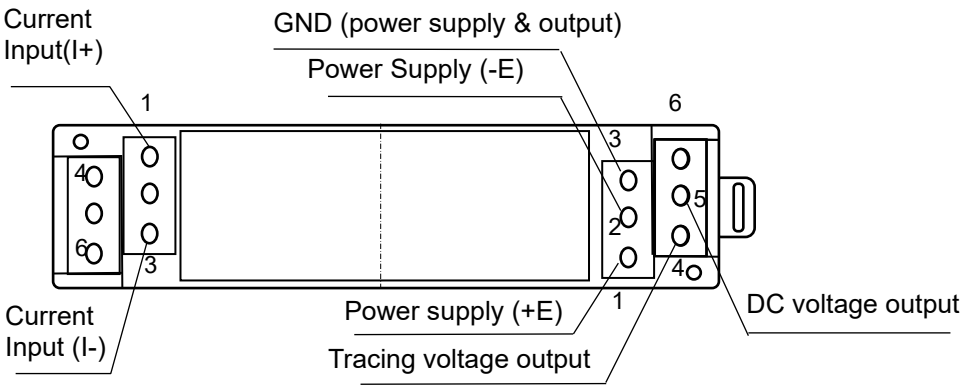
Example 1: CYCS-15S0-0.2-100mA, AC/DC Current sensor with
Output signal: ±5V AC/DC
Power supply: ±12V DC
Rated input current: ±100mA AC/DC

DIMENSIONS (mm)





View of A Direction



Please don't use the undefined terminals

Dimensions: 105mm x 24mm x 66mm

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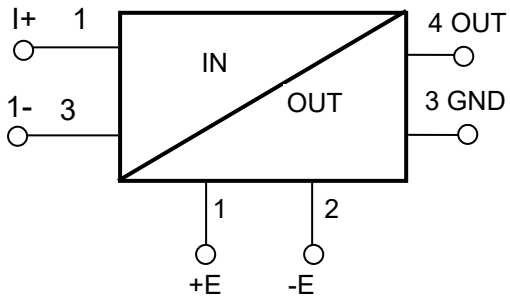
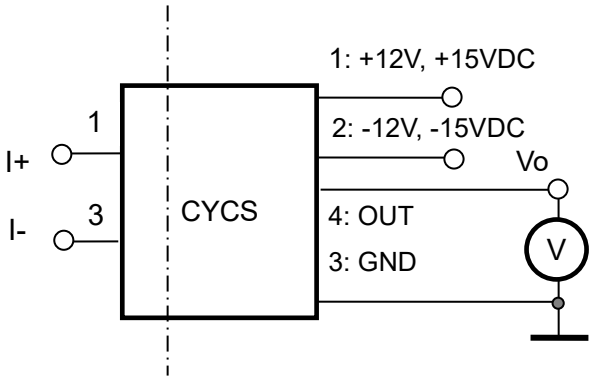
CONNECTION

Wiring of Terminals for Tracing Voltage Output:





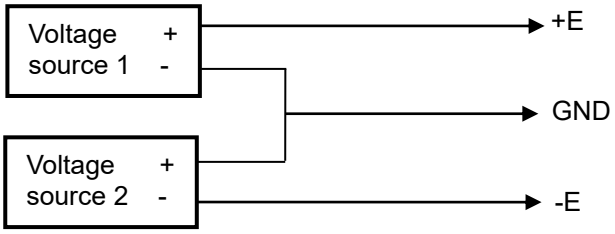
Input Terminals:

1, 3: Input Current I+ and I-;

Output Terminals:

1, 2: Power Supply +E and -E
3: GND (for power supply and output)
4: Tracing Voltage Output

The power supply +E and -E can be generated by using two voltage sources:



Relation between Input and Output:

Sensor CYCS-15S0-0.2-100mA	
Input current (mA)	Output voltage (V)
-100	-5
-50	-2.5
0	0
50	2.5
100	5

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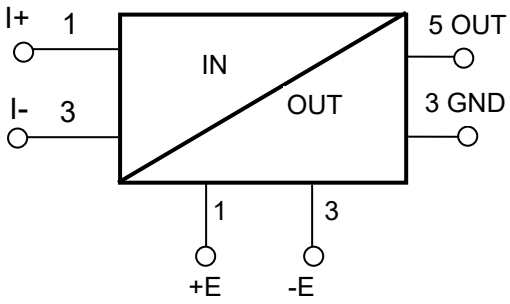
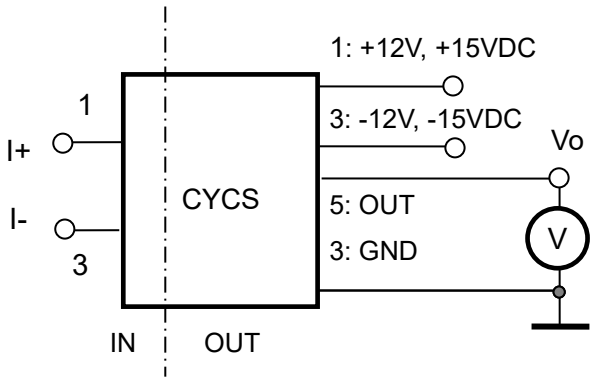
Wiring of Terminals for voltage output:





Input Terminals:

1, 3: Input Current I+ and I-;

Output Terminals:

1, 2: Power Supply +E and -E
3: GND (for power supply and output)
5: Voltage Output

Relation between Input and Output:

Sensor CYCS-36S0-0.5-100mA	
Input Current (mA)	Output voltage (V)
0	0
25	1.25
50	2.5
75	3.75
100	5

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