



AC Current Sensor CYCS11-xnWS4

The **CYCS11-xnWS4** AC current Sensor/Transducer works according electromagnetic induction and is designed for applications to measurement and monitoring of single phase AC current. The output signal (voltage or current) of this transducer is proportional to the rectified average value of input AC current or reflects the input current wave. They are suitable for general applications such as fixed frequency voltage supplies etc.

Specifications

Rated input current AC	0.5A, 1A, 2A, 3A, 4A, 5A, 6A, 7A, 8A AC
Linear measuring range	0 - 1.2 times of rated input current
Overload capacity	20 times of rated input current, 5s
Input frequency	25Hz ~ 5kHz
Output signals	Tracing voltage 5VAC, 0-5VDC, 0-10VDC, 0-20mADC, 4-20mADC
Measuring accuracy	Tracing voltage: 0.1%; DC voltage output: 0.2%; DC current output: 0.5%
Load capacity	voltage output: 5mA; current output: 6V
Response time	Tracing output: 15 μ s ; DC voltage and current output : 300ms
Thermal drift	Tracing voltage: 50ppm/ $^{\circ}$ C; DC voltage output: 150ppm/ $^{\circ}$ C DC current output: 300-350ppm/ $^{\circ}$ C
Power supply	\pm 12VDC, \pm 15VDC, +12VDC, +24VDC
Static current	Voltage output: 3-5mA; Current output: 3-7mA
Isolation	Isolation between input and output, power supply at the output
Isolation voltage	2.5 kV DC, 1min
Operating temperature	-10 $^{\circ}$ C ~ +60 $^{\circ}$ C
Storage temperature	-25 $^{\circ}$ C ~ + 70 $^{\circ}$ C
Relative humidity	10% ~ 90%
Protection of Case	IP20
Material of Case	ABS (According to UL94V-0)
Mounting	DIN Rail
Case Style	WS4 with aperture Φ 4mm
MTBF	50000h
Unit weight	90g

Definition of Part number:

CYCS11	-	x	n	WS4	-	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)
CYCS11	x=1: 5VAC tracing**	n=5: \pm 12V DC n=6: \pm 15V DC	WS4	0.1% 0.2% 0.5%	0.5A, 1A, 2A, 3A, 4A, 5A, 6A, 7A, 8A
	x=3: 0-5V DC	n=2: +12V DC			
	x=4: 0-20mA DC	n=4: +24V DC			
	x=5: 4-20mA DC				
	x=8: 0-10V DC	n=4: +24V DC			

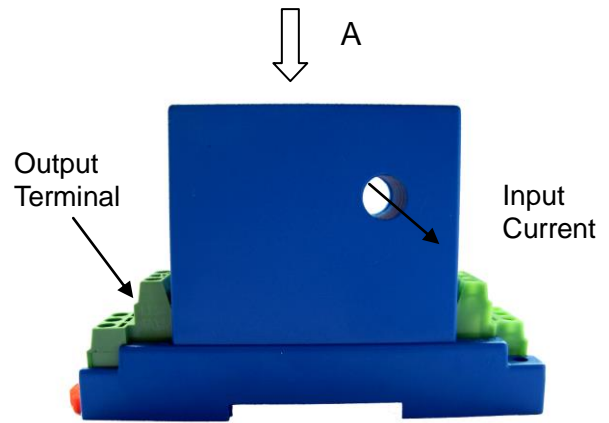
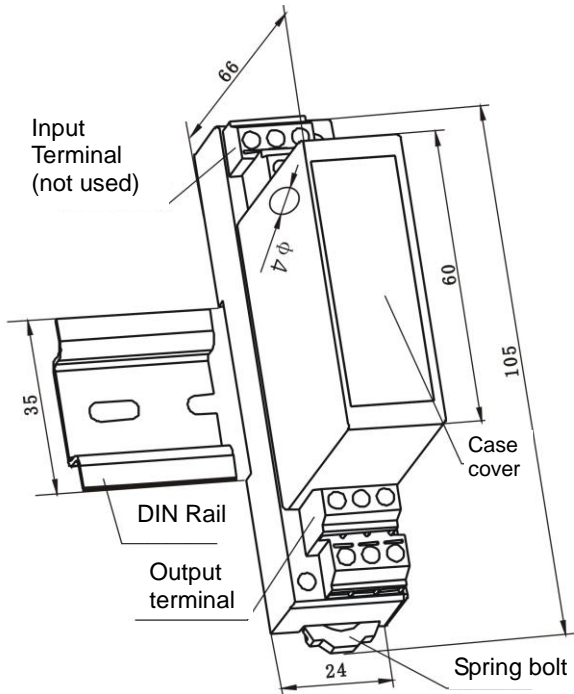


Example 1: CYCS11-15WS4-0.1-1A, AC Current sensor with
Tracing output voltage: 5V AC
Power supply: $\pm 12V$ DC
Rated input current: 0 -1A AC

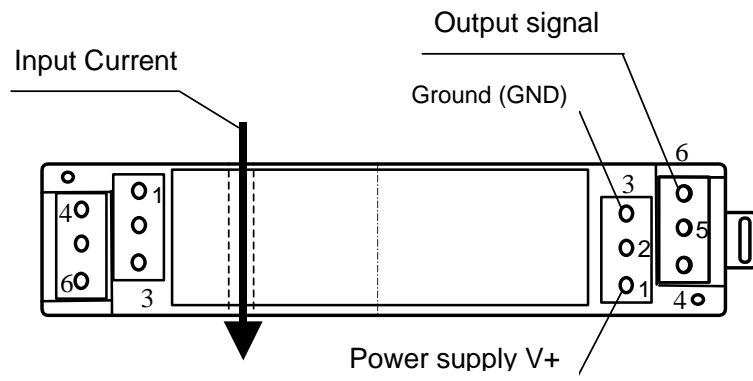
Example 2: CYCS11-32WS4-0.2-1A, AC Current sensor with
Output signal: 0-5V DC
Power supply: +12V DC
Rated input current: 0-1A AC

Example 3: CYCS11-54WS4-0.5-1A, AC Current sensor with
Output signal: 4-20mA DC
Power supply: +24V DC
Rated input current: 0 -1A AC

DIMENSIONS (mm)



Dimensions: 105mm x 24mm x 66mm

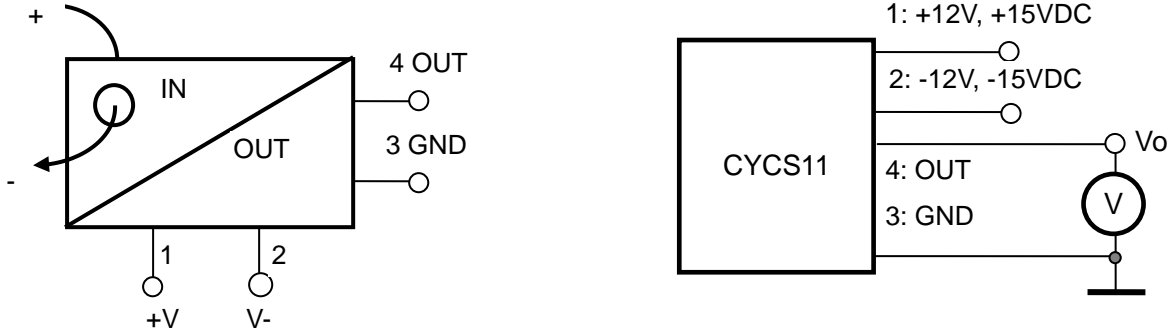


View of A Direction



CONNECTIONS

Wiring of Terminals for tracing voltage output:

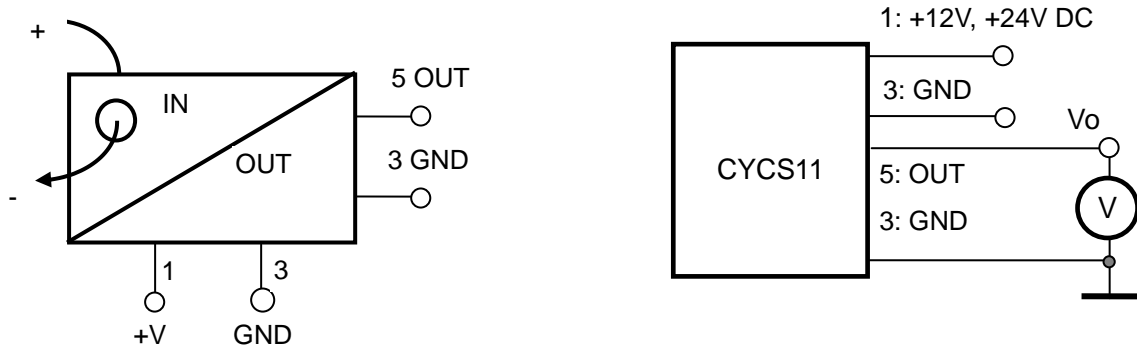


1, 2: $\pm 12V, \pm 15V$ power supply; 3: GND; 4: tracing voltage output; 5,6: NC

Relation between Input and Output:

Sensor CYCS11-15WS4-0.1-1A	
Input current (A)	Output voltage (V)
-1	-5
-0.5	-2.5
0	0
0.5	2.5
1	5

Wiring of Terminals for DC Voltage Output:



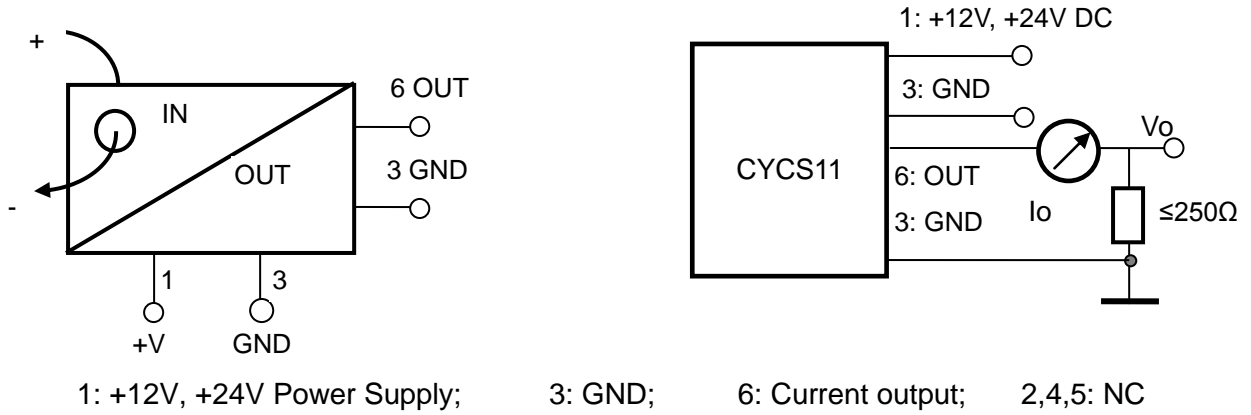
1: +12V, +24V Power Supply; 3: GND; 5: Voltage Output; 2,4,6: NC

Relation between Input and Output:

Sensor CYCS11-32WS4-0.2-1A	
Input current (A)	Output voltage (V)
0	0
0.25	1.25
0.5	2.5
0.75	3.75
1	5



Wiring of Terminals for DC Current Output:



Relation between Input and Output (for $R_m=250 \Omega$):

Sensor CYCS11-54WS4-0.5-1A		
Input current (A)	Output current I_o (mA)	Output voltage V_o (V)
0	4	1
0.25	8	2
0.5	12	3
0.75	16	4
1	20	5