



## AC Current Sensor CYCS11A-xnWS9

The **CYCS11A-xnWS9** AC current Sensor/Transducer works according electro-magnetic induction and is designed for applications to measurement and monitoring of single phase AC current. The output current of this transducer is proportional to the rectified value (absolute 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	5A, 10A, 15A, 20A, 25A, 30A, 35A, 40A, 45A, 50A AC
Linear measuring range	0 - 1.2 times of rated input current
Overload capacity	30 times of rated input current, 5s
Input frequency	25Hz ~ 5kHz
Output signals	0-20mADC, 4-20mADC
Measuring accuracy	0.5%
Load capacity	6V
Response time	300~350ms
Thermal drift	Output 0-20mA : 300ppm/°C; Output 4-20mA : 350ppm/°C
Power supply	+12VDC, +24VDC, 165V~265VAC, 230V~360VDC
Static current	13mA
Isolation	Isolation between input, output and power supply
Isolation voltage	Input-Output : 2.5 kV DC, 1min, Supply-Input : 2.5 kV DC, 1min Output-Supply : 1.5kV ~2.5kV, 1 min
Operating temperature	-10°C ~ +60°C
Storage temperature	-25°C ~ + 70°C
Relative humidity	10% ~ 90%
Protection of Case	IP20
Material of Case	ABS (According to UL94V-0)
Mounting	DIN Rail
Case Style	WS9 with aperture Φ9mm
MTBF	50000h
Unit weight	90g

### Definition of Part number:

CYCS11A	-	x	n	WS9	-	0.5	-	m
(1)		(2)	(3)	(4)		(5)		(6)

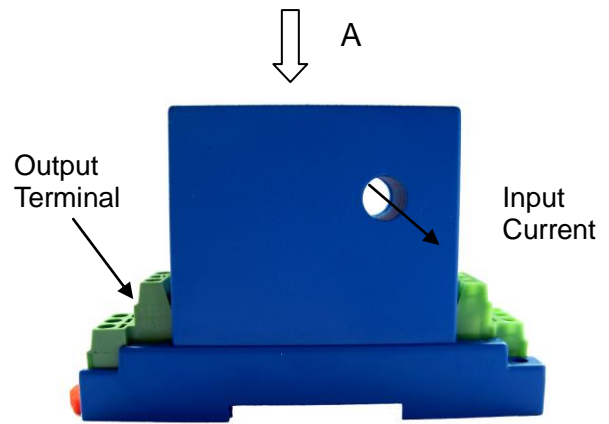
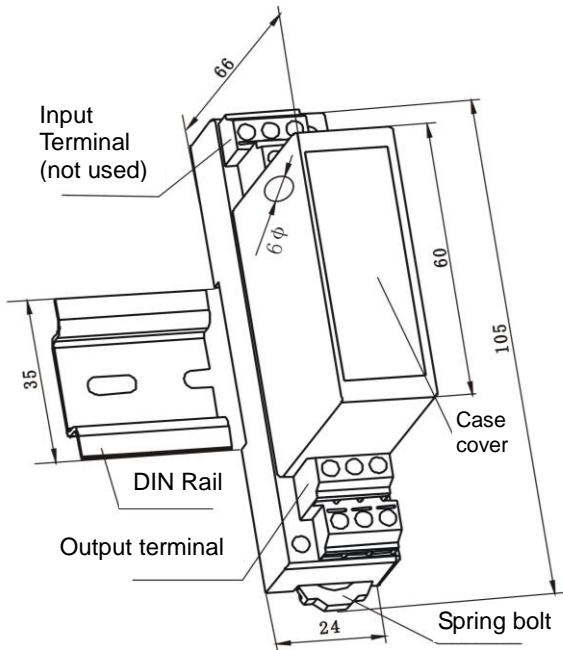
(1)	(2)	(3)	(4)	(5)	(6)
Series name	Output signal	Power supply	Case style	Accuracy class	Input current range (m)
CYCS11A	x=4: 0-20mA DC x=5: 4-20mA DC	n=2: +12V DC n=4: +24V DC n=8: 165~265V AC n=9: 230~360V DC	WS9	0.5%	5A, 10A, 15A, 20A, 25A, 30A, 35A, 40A, 45A, 50A AC



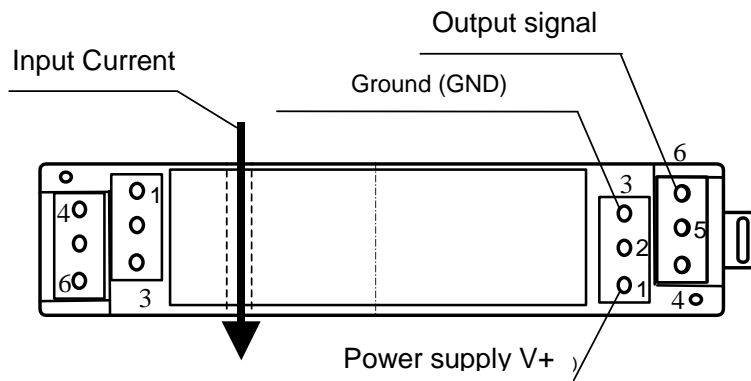
**Example 1:** CYCS11A-54WS9-0.5-10A, AC Current sensor with  
Output signal: 4-20mA DC  
Power supply: +24V DC  
Rated input current: 0 -10A AC

**Example 2:** CYCS11A-48WS9-0.5-10A, AC Current sensor with  
Output current: 0-20mA DC  
Power supply: 165~265V AC  
Rated input current: 0 -10A AC

**DIMENSIONS (mm)**



Dimensions: 105mm x 24mm x 66mm

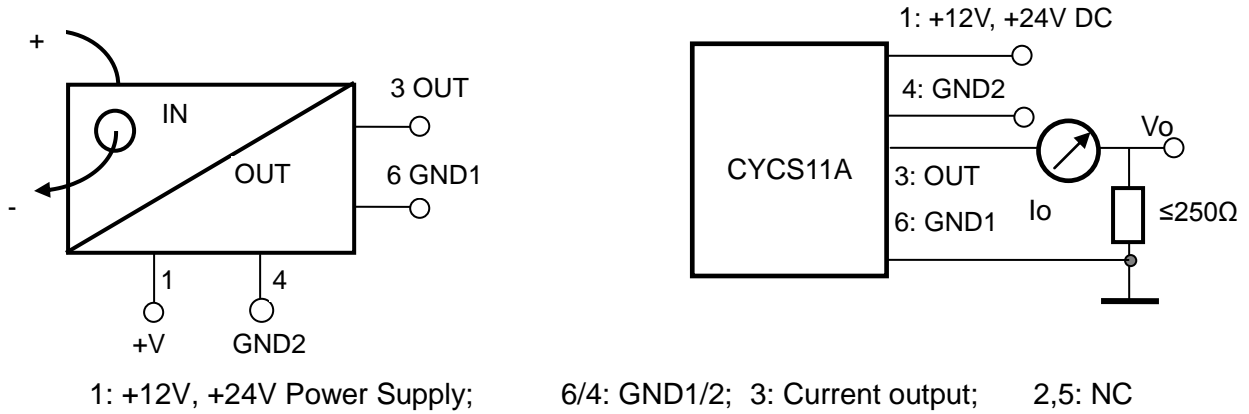


**View of A Direction**



## CONNECTIONS

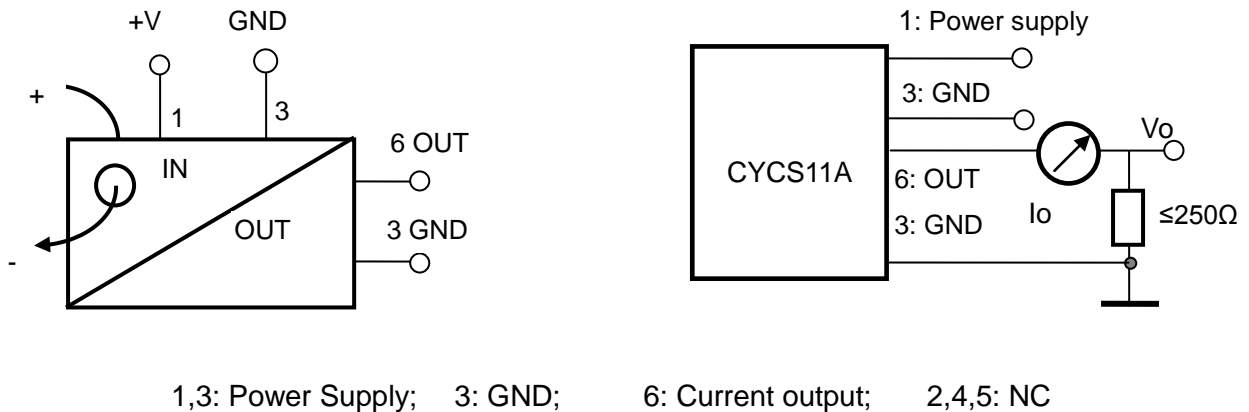
### Wiring of Terminals with Power Supply +12V and +24V:



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

Sensor CYCS11A-54WS9-0.5-10A		
Input current (A)	Output current $I_o$ (mA)	Output voltage $V_o$ (V)
0	4	1
2.5	8	2
5	12	3
7.5	16	4
10	20	5

### Wiring of Terminals with Power Supply 165~265VAC and 230~360VDC:



Relation between Input and Output:

Sensor CYCS11A-48WS9-0.5-10A		
Input current (A)	Output current $I_o$ (mA)	Output voltage $V_o$ (V)
0	0	0
2.5	5	1.25
5	10	2.5
7.5	15	3.75
10	20	5