AC Current Sensor CYCS11-xnS2

The **CYCS11-xnS2** AC Current Sensor/Transducer works according to electro-magnetic induction and is designed for applications to measurement and monitoring of single-phase AC current. The output signal (DC voltage or current) of this transducer is proportional to the average effective value (RMS) of input AC current. They are suitable for general applications such as fixed frequency voltage supplies etc.

Specifications

Rated input current range	5A,10A,15A,25A
Frequency of Input current	Typ. 50-60Hz, max. 5kHz
Output signal	5V (tracing), 0-5VDC, 0-20mA, 4-20mA, 0-10V DC
Power supply	+12V, +15V, +24V DC
Measuring accuracy	0.5%
Isolation	between input, output and power supply
Load resistance	≥2kΩ for voltage output, ≤250Ω for current output
Isolation withstanding voltage	2.5 kV DC, 1min, leakage current 1mA
Operating temperature	-10°C ~ +60°C
Storage temperature	-25°C ~ + 70°C
Relative humidity	10% ~ 90%
Response time	≤400ms
Overload capacity	20 times
Quiescent power consumption	360mW – 450mW
Mounting	Din rail
Case style and Window size	S2 with aperture Ø6.5mm

Definition of Part number:

CYCS11	-	x	n	S2	-	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)
CYCS11	**x=1:** 5V (Vp, tracing) **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	S2	0.5%	5A,10A,15A,25A

Example 1: CYCS11-32S2-0.5-10A, Single Phase AC Current sensor with
Output signal: 0-5V DC
Power supply: +12V DC
Rated input current: 10A AC/RMS

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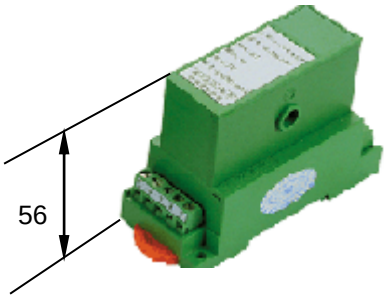
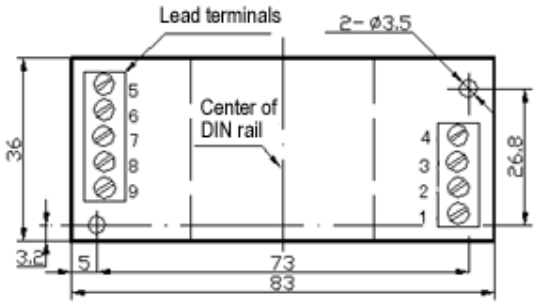
Example 2: CYCS11-54S2-0.5-10A, Single Phase AC Current sensor with
Output signal: 4-20mA DC
Power supply: +24V DC
Rated input current: 100A AC/RMS

DIMENSIONS (mm)

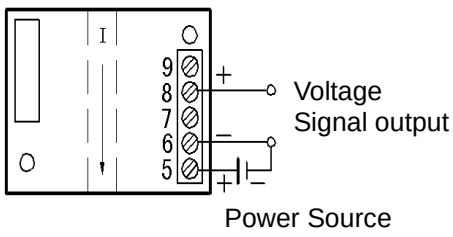


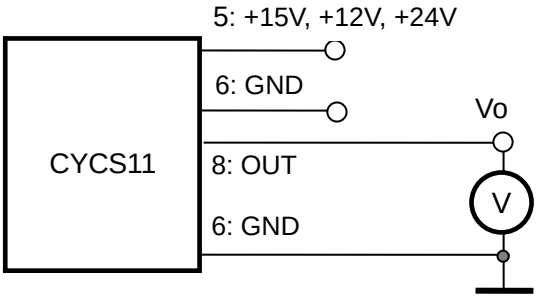


Dimensions: 56mm x 83mm x 36mm
Aperture: Ø6.5mm

CONEECTIONS

Wiring of Terminals for voltage output:





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

Relation between Input and Output:

Sensor CYCS11-32S2-0.5-10A	
Input current (A)	Output voltage (V)
0	0
2.5	1.25
5	2.5
7.5	3.75
10	5

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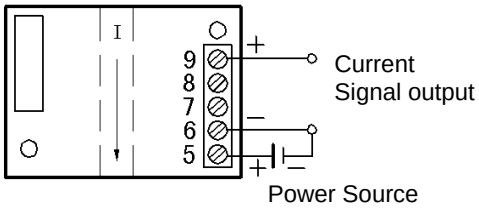
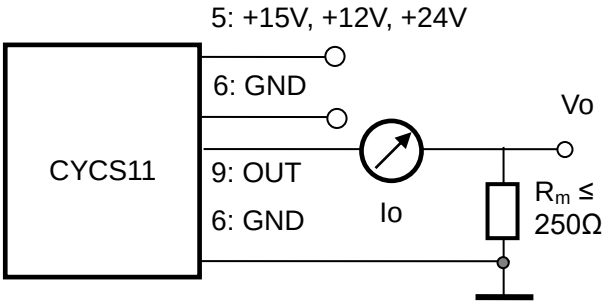
Wiring of Terminals for Current Output:





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

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

Sensor CYCS11-54S2-0.5-10A		
Input current (A)	Output current Io(mA)	Output voltage Vo (V)
0	4	1
2.5	8	2
5	12	3
7.5	16	4
10	20	5

Application:

- Multi-point current sensing and control panels
- Monitor lighting elements
- Monitor heating elements
- Remote current sensing
- Monitor motor faults

Notice:

1. The conductor carrying the input current should pass through the center of the aperture as perpendicularly as possible.

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

3. 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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