

AC Leakage Current Sensor CYCS11-xnH3

The **CYCS11-xnH3** AC current Sensor/Transducer works according electro-magnetic isolation principle and is designed for applications to measurement and monitoring of AC leakage current. The output signal of this transducer is proportional to the rectified average value of input AC current. This sensor is suitable for measuring and monitoring the leakage current in single-phase or three-phase AC systems.

Specifications

Rated input current AC	0-10mA ~ 0-500mA AC
Linear measuring range	0 - 1.2 times of rated input current
Overload capacity	20 times of rated input current, 1s, time interval 300s, repeat 5 times
Input frequency	25Hz ~ 1kHz
Output signals	0-5VDC, 0-10VDC, 0-20mADC, 4-20mADC
Measuring accuracy	DC voltage output: 0.5%; DC current output: 1.0%
Load capacity	voltage output: 5mA; current output: 6V
Response time	300ms
Thermal drift	DC voltage output: 200ppm/°C DC current output: 300-350ppm/°C
Power supply	+12VDC, +24VDC, +48VDC
Static current	Voltage output: 5mA; Current output: 3-7mA
Isolation	Isolation between input and output, power supply at the output
Isolation voltage	3 kV DC, 1min
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	H3 with aperture Φ9mm
MTBF	50000h
Unit weight	120g

Definition of Part number:

CYCS11	-	x	n	H3	-	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=3: 0-5V DC x=5: 4-20mA DC	n=2: +12V DC n=4: +24V DC n=7: +48VDC	H3	0.5% 1.0%	10mA, 20mA, 50mA, 100mA, 200mA, 300mA, 400mA 500mA AC
	x=8: 0-10V DC	n=4: +24V DC n=7: +48VDC			

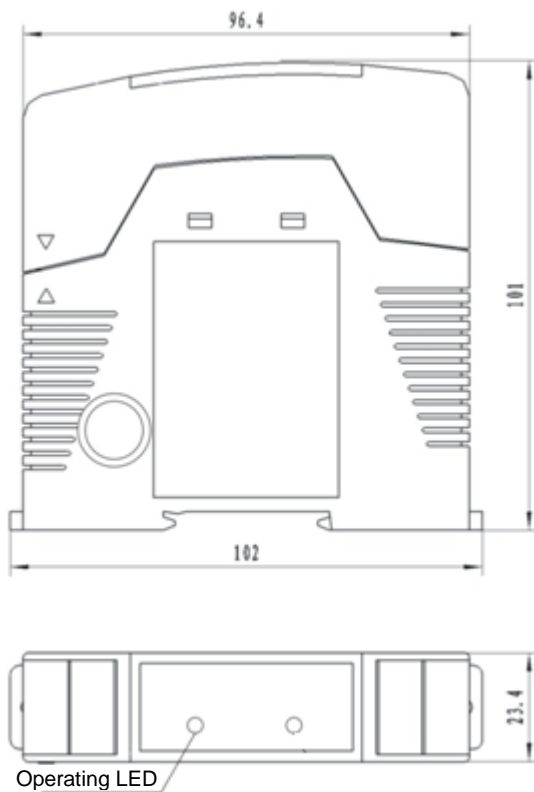


Example 1: CYCS11-87H3-0.5-100mA, AC Current sensor with
Output voltage: 0-10V DC
Power supply: +48V DC
Rated input current: 0 -100mA AC

Example 2: CYCS11-32H3-0.5-100mA, AC Current sensor with
Output signal: 0-5V DC
Power supply: +12V DC
Rated input current: 0-100mA AC

Example 3: CYCS11-54H3-1.0-100mA, AC Current sensor with
Output signal: 4-20mA DC
Power supply: +24V DC
Rated input current: 0 -100mA AC

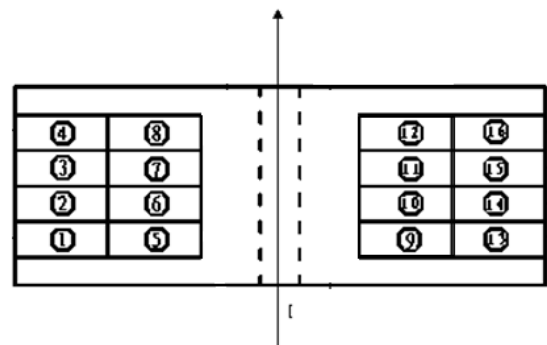
DIMENSIONS (mm)



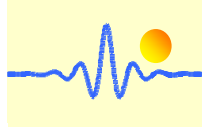
Dimensions: 101x 102 x 23.4mm,
Aperture: Ø9 mm

Terminal Arrangement

Terminal No	Symbol	Discription
9	IO+	Current output +
10	IO-	Current output -
11	VO+	Voltage output +
12	VO-	Voltage output -
13,14	+E	Power supply +
15,16	G	Power supply Ground
17	I	Input current
1-8	NC	Not defined

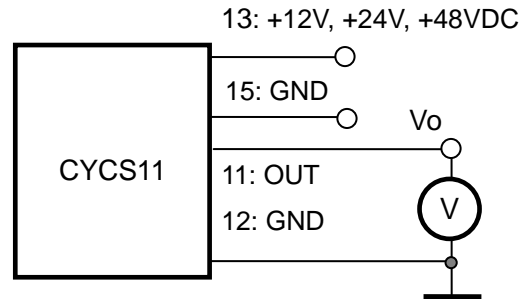
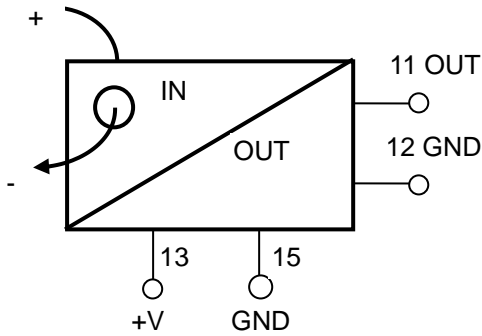


17: Input current direction



CONNECTIONS

Wiring of Terminals for DC voltage output:

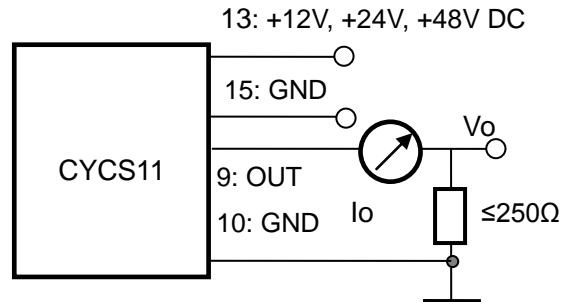
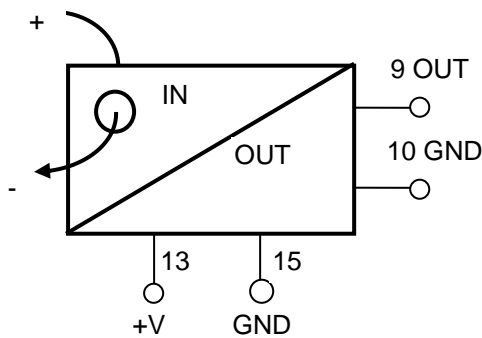


13: +12V, +24V, +48V Power Supply; 12,15: GND; 11: Voltage Output

Relation between Input and Output:

Sensor CYCS11-87H3-0.5-100mA	
Input current (mA)	Output voltage (V)
0	0
25	2.5
50	5
75	7.5
100	10

Wiring of Terminals for DC Current Output:



13: +12V, +24V, +48V Power Supply; 10,15: GND; 9: Current output

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

Sensor CYCS11-54H3-0.5-100mA		
Input current (mA)	Output current I_o (mA)	Output voltage V_o (V)
0	4	1
25	8	2
50	12	3
75	16	4
100	20	5