



## High Accurate AC Current Sensor CYCS412D41

The **CYCS412D41** AC current Sensor/Transducer works according to electro-magnetic induction principle and is designed for applications to measurement and monitoring of single phase AC current. The output signal (DC voltage) 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.

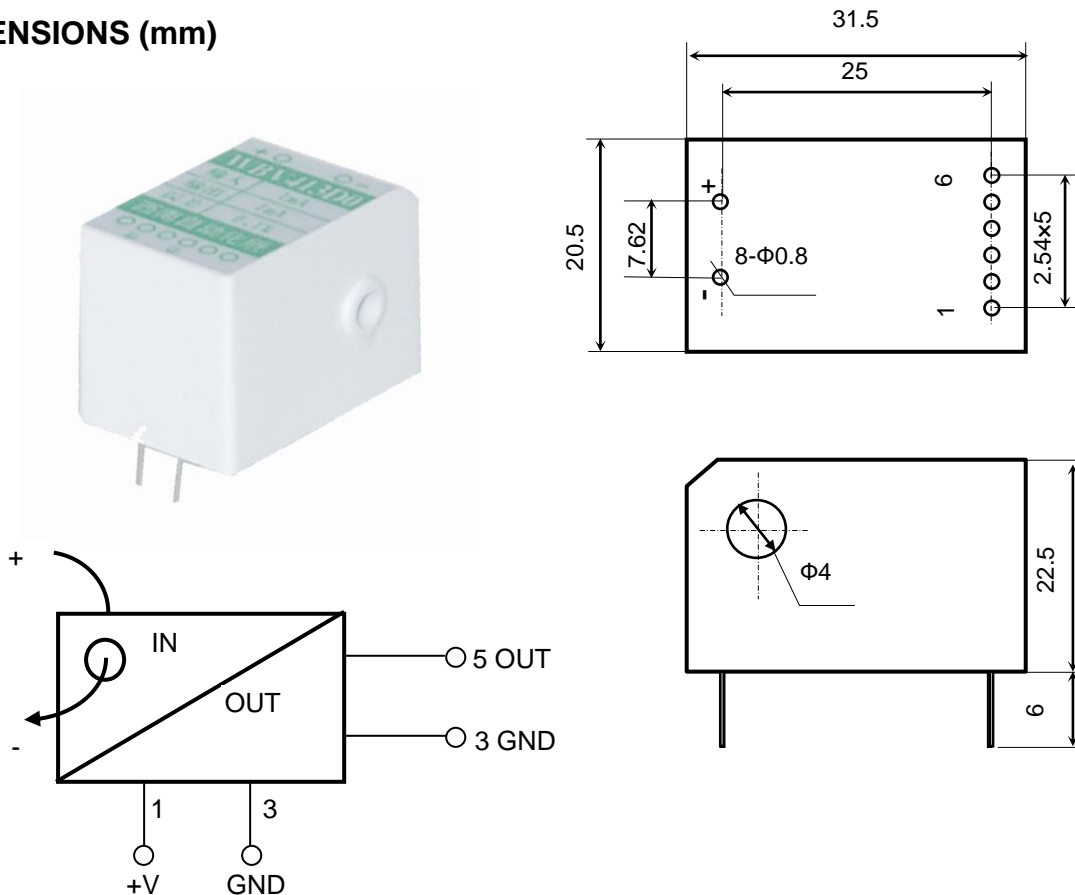
The sensor has the advantages of high measuring accuracy, high reliability, low thermal drift, low current consumption, small size, PCB mounting etc.

### Specifications

Part number	CYCS412D41-m-X, (X depends on power supply)
Rated input current range	m=0.5A, 1A, 2A, 3A, 5A, 8A
Linear measuring range	0 ~ 1.2 time of rated input current
Overload capacity	30 times
Frequency range	25Hz ~ 5 kHz
Output signals	0-5V DC (averaged effective value)
Measuring accuracy	0.2%
Load capacity	5mA
Response time	≤300ms
Thermal drift	150ppm/°C
Power supply	X=2 for +12V DC, X=4 for +24VDC
Static current	5mA
Isolation	Isolation between input and output, power supply at output
Isolation withstanding voltage	2.5 kV DC, 1min
Operating temperature	-10°C ~ +60°C
Storage temperature	-25°C ~ + 70°C
Relative humidity	10% ~ 90%
Isolation Capacity between input and output	5pF (<1kHz)
CMRR	60dB (50Hz)
Protection of Case	IP20
Material of Case	ABS (According to UL94V-0)
Mounting	PCB
Window size	Ø4mm
MTBF	50000 h
Unit weight	30g



## DIMENSIONS (mm)



Dimensions: 31.5mm x 20.5mm x 22.5mm  
Aperture:  $\varnothing$ 4mm

## 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 3.
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.