

AC Current Sensor CYCS11-LTAD

This current sensor series is based on electromagnetic induction principle and has good stability for measuring 1A ~ 100A AC current and high isolation between primary current and secondary output signal. This sensor can be used for measurement of different AC currents.

Product Characteristics

- Excellent accuracy
- Very good linearity
- Less power consumption
- Window structure
- Electrically isolating the output of the transducer from the current carrying conductor
- No insertion loss
- Current overload capability

Applications

- Various power supply
- Communication systems
- Leakage current measurement
- Numerical controlled machine tools
- Current difference measurement
- Electric circuits measurement
- Microcomputer monitoring
- Electric power network monitoring

Electrical Data

Primary Nominal Current I_r AC (A)	Measuring Range AC (A)	Output Current DC (mA)	Aperture Diameter (mm)	Part number
1	± 2	4-20mA DC $\pm 0.5\%$	$\varnothing 20.0$	CYCS11-LTAD01A
5	± 10			CYCS11-LTAD05A
10	± 20			CYCS11-LTAD10A
20	± 40			CYCS11-LTAD20A
30	± 60			CYCS11-LTAD30A
40	± 80			CYCS11-LTAD40A
50	± 100			CYCS11-LTAD50A
60	± 120			CYCS11-LTAD60A
75	± 150			CYCS11-LTAD75A
100	± 200			CYCS11-LTAD100A

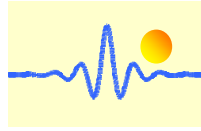
The primary nominal current can be selected between 1A und 100A AC

Supply Voltage
Current Consumption
Galvanic Isolation, 50/60Hz, 1min:
Isolation resistance @ 500 VDC
Accuracy at I_r , $T_A=25^\circ\text{C}$ (without offset),
Linearity from 0 to I_r , $T_A=25^\circ\text{C}$,
Electric Offset Current, $T_A=25^\circ\text{C}$,
Thermal Drift of Offset Current,
Response Time at 90% of I_P ($f=1\text{k Hz}$)
Frequency range:

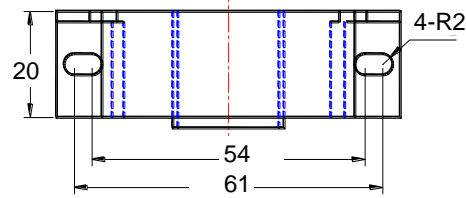
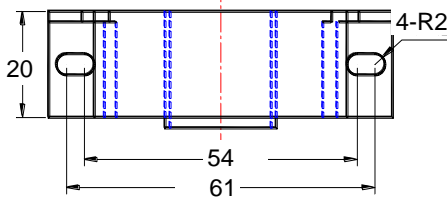
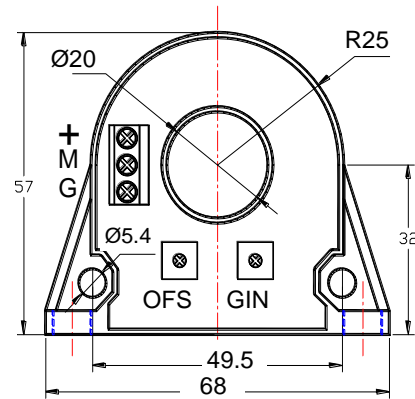
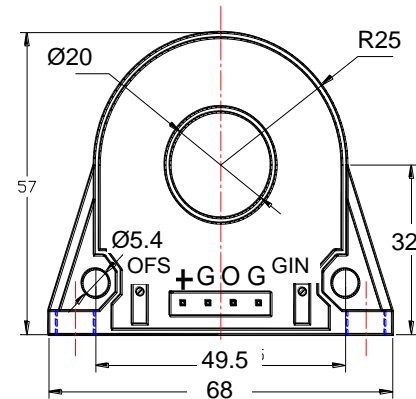
$V_{cc}= +24\text{VDC} \pm 5\%$
 $I_c < 20\text{mA}$
2.5kV
> 500 M Ω
 $X < \pm 0.5\%$
 $E_L < 0.5\% \text{ FS}$
 $V_{oe} < +4\text{mA}$
 $V_{ot} < \pm 0.05\text{mA}/^\circ\text{C}$
 $t_r < 20\text{ms}$
50~1000Hz

Ambient Operating Temperature,
Ambient Storage Temperature,

$T_A = -40^\circ\text{C} \sim +85^\circ\text{C}$
 $T_S = -40^\circ\text{C} \sim +125^\circ\text{C}$

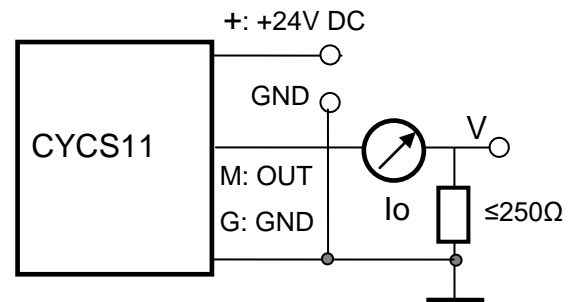
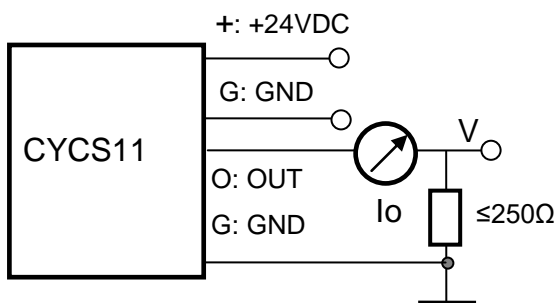


PIN Definition and Dimensions



+: +24V
G: GND
O: OUT
G: GND

+: +24V
M: OUT
G: GND



Notes:

1. Connect the terminals of power source, outputs respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with primary cable (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer

