ChenYang
Technologies GmbH & Co KG

DC Current Sensor CYCT04-LTAD

This current sensor series is based on magnetic modulation principle and has good stability for measuring 1A~100A DC current and high isolation between primary current and secondary output signal. This sensor can be used for measurement of DC 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 (A)	Measuring Range (A)	Output Voltage (V)	Aperture Diameter (mm)	Part number
1	± 2	5 ±0.5%	Ø20.0	CYCT04-LTAD01A
5	±10			CYCT04-LTAD05A
10	±20			CYCT04-LTAD10A
20	± 40			CYCT04-LTAD20A
30	± 60			CYCT04-LTAD30A
40	± 80			CYCT04-LTAD40A
50	± 100			CYCT04-LTAD50A
60	± 120			CYCT04-LTAD60A
75	± 150			CYCT04-LTAD75A
100	± 200			CYCT04-LTAD100A

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

Supply Voltage	V_{cc}= ±15V ± 5%
Current Consumption	I_c < 20mA
Galvanic Isolation, 50/60Hz, 1min:	5.0kV
Isolation resistance @ 500 VDC	> 500 MΩ

Accuracy and Dynamic performance data

Accuracy at I_r, T_A=25°C (without offset),	X <±0.5%
Linearity from 0 to I_r, T_A=25°C,	E_L <0.2% FS
Electric Offset Voltage, T_A=25°C,	V_{oe} <±10mV
Thermal Drift of Offset Voltage,	V_{ot} <±0.5mV/°C
Response Time at 90% of I_P (f=1k Hz)	t_r < 20ms

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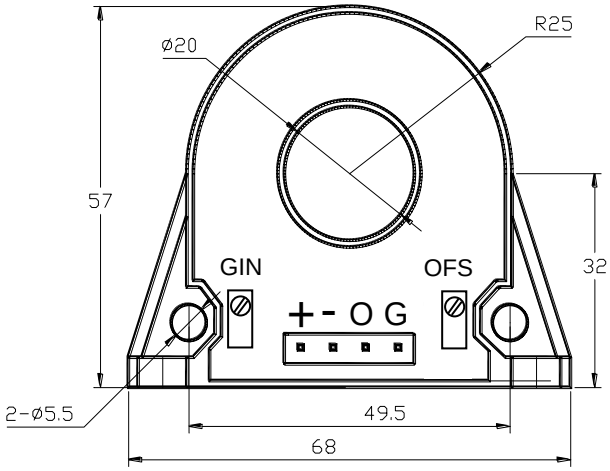
General Data

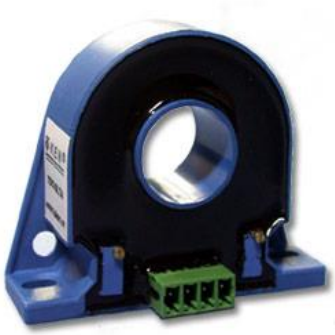
Ambient Operating Temperature,	T_A = -40°C ~ +85°C
Ambient Storage Temperature,	T_S =-40°C ~ +125°C

PIN Definition and Dimensions

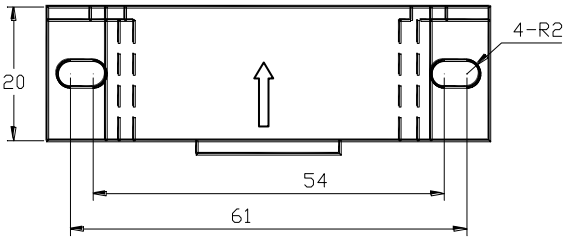
GIN: Gain

OFS: Offset





Terminal +: +15V,
Terminal -: -15V,
Terminal O: Output,
Terminal G: ground



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

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