

DC Leakage Current Sensor CYCT04-LTA

This current sensor series is based on magnetic modulation principle and has good stability for measuring small current and high isolation between primary current and secondary output signal. This sensor can be used for measurement of DC leakage currents.

Product Characteristics:

- Application of Ageing Technology
- 100% Ageing Processing and Thermal Drift Test under high operating temperature in order to guarantee the long term stability of the sensors
- Voltage output 5V
- Power supply $\pm 15\text{VDC}$
- Sensors with window for contactless measurement

Applications:

- Isolation Monitoring of DC power systems and cable selection systems,
- Measurement of small DC currents and leakage currents etc.

Electrical Data

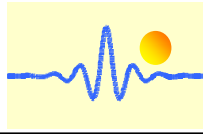
Primary Nominal Current I_r (mA)	Measuring Range (mA)	Output voltage (V)	Aperture Diameter (mm)	Part number
10	± 20	5 $\pm 0.5\%$	$\varnothing 20.0$	CYCT04-LTA10mA
20	± 40			CYCT04-LTA20mA
30	± 60			CYCT04-LTA30mA
40	± 80			CYCT04-LTA40mA
50	± 100			CYCT04-LTA50mA
100	± 200			CYCT04-LTA100mA

The primary nominal current can be selected between 10mA und 10A

Supply Voltage	$V_{cc} = \pm 15\text{V} \pm 5\%$
Current Consumption	$I_c < 20\text{mA}$
Galvanic isolation, 50/60Hz, 1min:	2.5kV
Isolation resistance @ 500 VDC	$> 500\text{ M}\Omega$

Accuracy and Dynamic performance data

Accuracy at I_r , $T_A=25^\circ\text{C}$ (without offset),	$X < \pm 0.5\%$
Linearity from 0 to I_r , $T_A=25^\circ\text{C}$,	$E_L < 1.0\% \text{ FS}$
Electric Offset Voltage, $T_A=25^\circ\text{C}$,	$V_{oe} < \pm 30\text{mV}$
Thermal Drift of Offset Voltage,	$V_{ot} < \pm 1\text{mV}/^\circ\text{C}$
Response Time at 90% of I_P ($f=1\text{k Hz}$)	$t_r < 20\text{ms}$

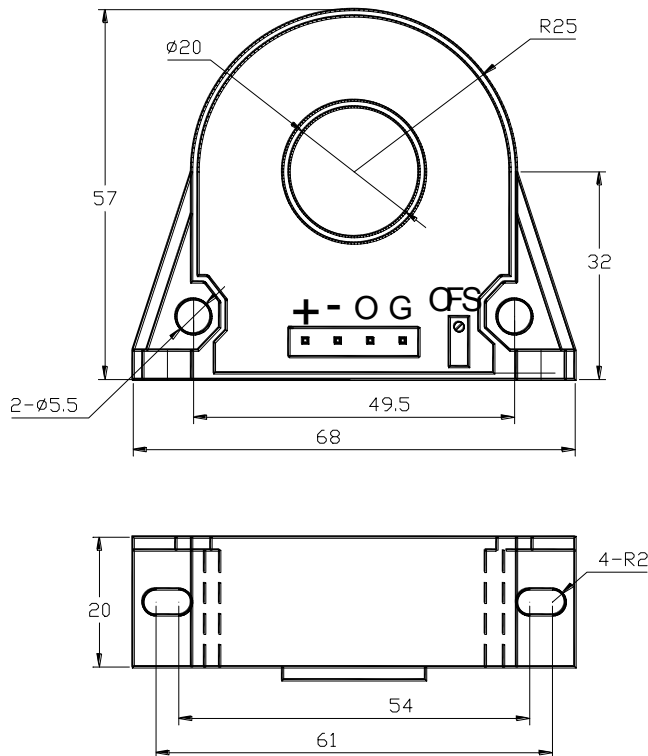


General Data

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



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