TDC-E series DC leakage current sensor is a kind of new device developed according to principle of electromagnetic induction. Its low current is stable, It is highly insulating between its primary coil and secondary coil, This sensor is used to measure current of signal system, circuit, and leakage monitoring system, as well as to measure current difference.

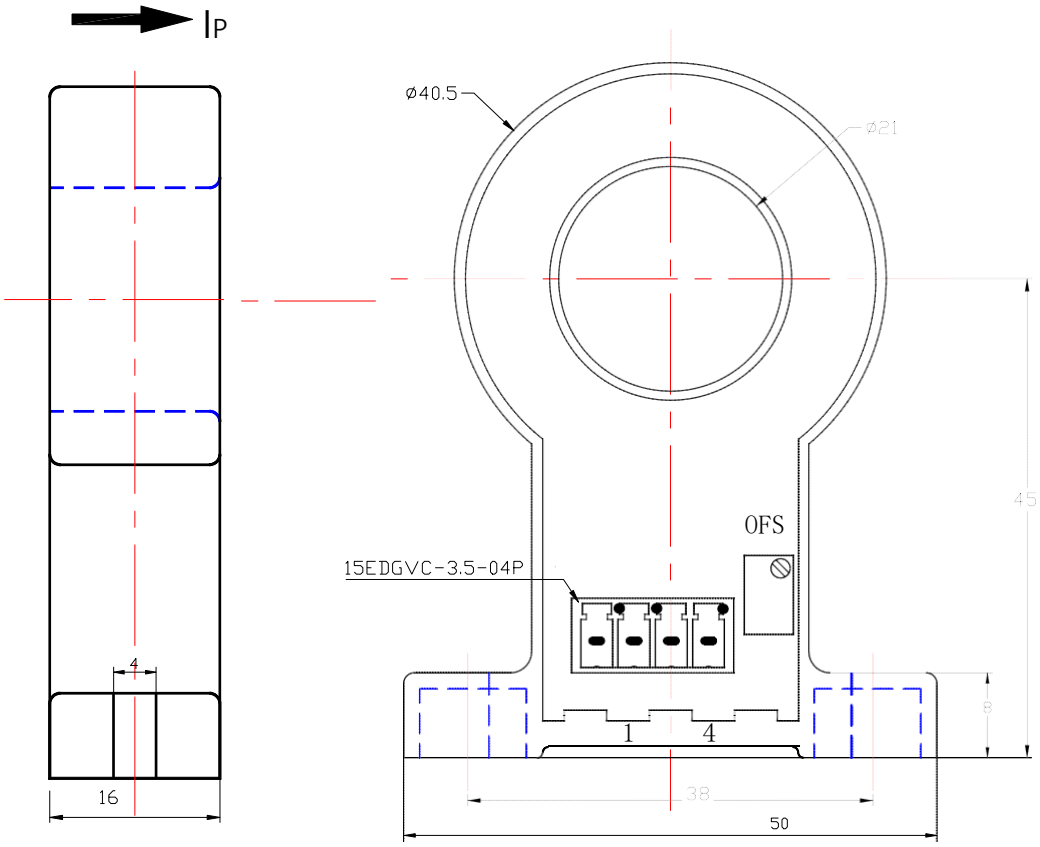
Electrical data (Ta=25℃±5℃)

Parameter \ Type	TDC10E	TDC20E	TDC30E	TDC40E	TDC50E	Unit
Rated input (Ipn)	±10	±20	±30	±40	±50	mA
Measure range(Ip)	±15	±30	±45	±60	±75	mA
Turns ratio (Np/Ns)	1:50	1:100	1:150	1:200	1:250	T
Rated output	@Ip=±Ipn	±5±1%				V
Supply voltage	±12--±15±5%					V
Consumption current	15+IpX (Np/Ns)					mA
Offset voltage	@Ip=0	≤±50				mV
Offset voltage drift	≤±1.5					mV/℃
Linearity	@Ip=0-±Ipn	≤1				%FS
Response time	≤200					mS
Galvanic isolation	@ 50Hz,AC,1min	2.5				KV

Applications

- Variable speed drives
- Welding machine
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Electrochemical

Mechanical dimension (for reference only)



PINS	CONNECTED
1	+15V
2	-15V
3	OUT
4	GND

Remarks :

1. All dimensions are in mm.
2. General tolerance ±1mm.

Directions for use

1. When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor)

2. The output amplitude of the sensor can be adjusted according to users' requirements.

3. Custom design in the different rated input current and the output voltage are available.

Standards

UL94-V0

EN60947-1:2004

IEC60950-1:2001

EN50178:1998

SJ 20790-2000

General date

	Value	Unit	Symbol
Operating temperature	-40 to +85	ºC	TA
Storage temperature	-40 to +125	ºC	TS
Mass(approx)	42	g	M

Characteristics chart

Characteristic of Output Noise Voltage

(Noise voltage)

Input Current-Output Voltage