TKC-GT1540 Series Open Loop Mode Hall Effect Current Sensor

TKC-GT1540 series current sensor is an open loop device based on the measuring principle of the hall effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

Electrical data

Type / Parameter		TKC750GT1540	Unit
Rated input current	I_{PN}	±750	A
Measure current range	I_P	4800A DC	A
Rated output voltage	VOUT	@If=IPN， VOUT＋VOE ＝40±2.0%FS（含失调电压） RL=4.4KΩ 注：*1)	mV
Supply voltage	V_C	+15±5%	V
Consumption current	I_C	≤20	mA
Offset voltage	V_{OE}	@Ta=25℃、铁芯消磁后 ≤±2	mV
Magnetic Offset voltage	V_{OH}	@ If=0,1×I_P ≤±0.1	mV
Offset voltage drift	TCV_{OE}	≤±2	mV
Output voltage drift	TCV_{OUT}	≤0.1	%/℃
Linearity	ε_L	@ If=0…±I_P ≤1.0	%FS
Response time	t_r	@ di/dt=100A/μs 2-6	μS
Galvanic isolation	V_d	@ 50HZ/60Hz,AC,1min 2.5	KV

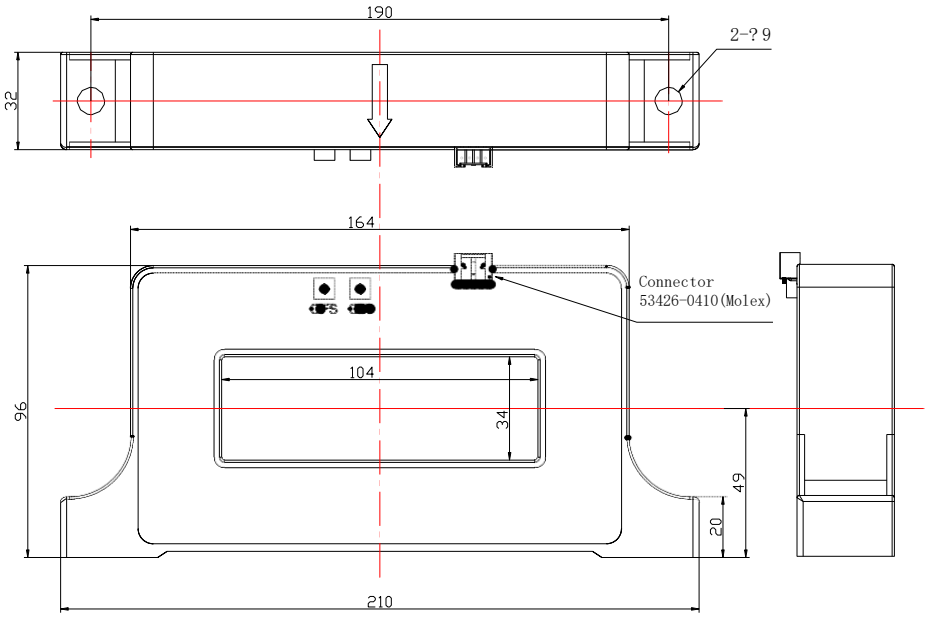
Note: *1) This parameter is calculated by reverse calculation of the output value of the load test circuit. For the detailed circuit diagram of the test, see the attached *1) Load test circuit

Applications

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

Mechanical dimension (for reference only)

PINS	
1	V_{CC}(+15V)
2	0V
3	V_{OUT} (+)
4	V_{OUT} (-)



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. Customs can adjust Output amplitude of the sensor by needs.
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

SJ20790-2000

General data

	Value	Unit	Symbol
Operating temperature	-40to +105	ºC	TA
Storage temperature	-40to +125	ºC	TS
Mass(approx)	1600	g	M

Appendix*1): Load test circuit