



TBC-C104/204 multi-range current sensor is a close loop device based on the measuring principle of the hall effect and null balance method, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.

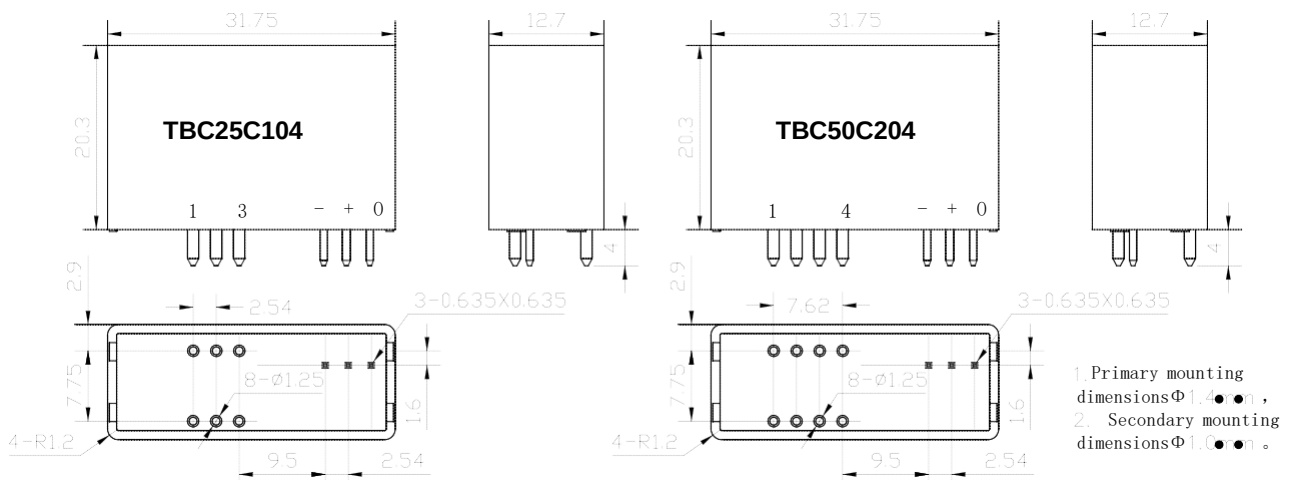
Electrical data (Ta=25°C±5°C)

Type Parameter	TBC25C104	TBC50C204	Unit
Rated input (I _{pn})	±25	±50	A
Measure range (I _p)	±55	±90	A
Measure resistor range	200 ~ 730 (±15V)	54 ~ 250 (±15V)	Ω
Turns ratio(N _p /N _s)	1-2-3:2000	1-2-3-4:2000	T
Rated output(I _{sn})	±12.5±0.5%(I _p =±I _{pn})	±25±0.5%(I _p =±I _{pn})	mA
Supply voltage	±15±5%		V
Power consumption	20+I _p X (N _p /N _s)		mA
Zero offset current	@I _p =0	≤±0.2	mA
Offset current drift		≤0.5	mA
Response time	@50A/μS,10%-90%	< 1	μs
Linearity	@I _p =0-±I _{pn}	≤0.1	%FS
Galvanic isolation	@ 50HZ/60Hz, AC,1min	5	KV
di/dt accurately followed		> 50	A/μs
Bandwidth h	@-3dB	DC-200	KHz
@70°C Secondary coil resistor	200	180	Ω

Applications

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

Mechanical dimension (for reference only)



Remarks :

1. All dimensions are in mm.
2. General tolerance $\pm 1\text{mm}$.

Pin connections

Primary turns	Rated current IPN (A)	Rated output IS	Primary resister [mΩ]	Pins connections	
				TBC25C104 6 IN 1 — 4 OUT	TBC50C204 8 IN 1 — 5 OUT
1	25, 50	12.5, 25	0.05	IN 1 — 3	IN 1 — 4
2	12, 24	12, 24	0.20	6 IN 1 — 4 OUT IN 1 — 3	8 IN 1 — 5 OUT IN 1 — 4
3	8, 16	12, 24	0.48	6 IN 1 — 4 OUT IN 1 — 3	8 IN 1 — 5 OUT IN 1 — 4
4	12	24	1.00		8 IN 1 — 5 OUT IN 1 — 4

Directions for use

1. When the current will be measured goes through a sensor, the current will be measured at the output end. (Note: The false wiring may result in the damage of the sensor)
2. Custom design in the different rated input current and the output current available.

Standards

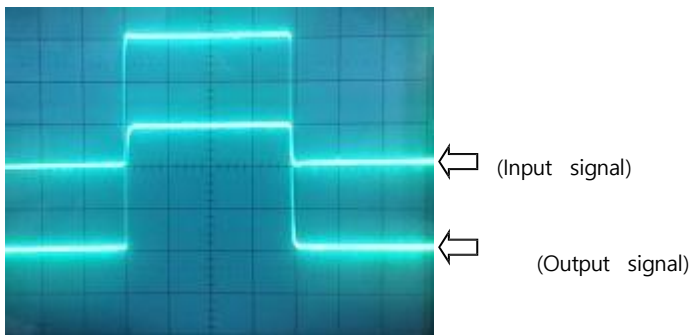
UL94-V0.
EN60947-1:2004
IEC60950-1:2001
EN50178:1998
SJ 20790-2000

General data

	Value	Unit	Symbol
Operating temperature	-40 to +85	°C	TA
Storage temperature	-40 to +125	°C	TS
Mass(approx)	15	g	M

Characteristics chart

Pulse current signal response characteristic



Effects of impulse noise

