



DATA SHEET

Hall Effect Current Sensor

PN: CHB_TAH15D

IPN=5~300A

Feature

- Closed- loop (compensated) current transducer
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC $\pm 12\sim 18V$

Advantages

- High accuracy
- Easy installation
- Low temperature drift
- Optimized response time
- High immunity to external interference

- Very good linearity
- Can be customized

Applications

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



RoHS

Electrical data $T_a=25^{\circ}C$ $V_c= \pm 15VDC$					
Parameter	Ref	CHB50 TAH15D	CHB100 TAH15D	CHB200 TAH15D	CHB300 TAH15D
Rated input $I_{pn}(A)$		5-50	10-100	20-200	30-300
Measuring range $I_p(A)$		150 ($\pm 18V$, 80 Ω)	300 ($\pm 18V$, 30 Ω)	700 ($\pm 18V$, 18 Ω)	900 ($\pm 18V$, 2.0 Ω)
Turns ratio $N_p/N_S (T)$		1:1000	1:1000	1:2000	1:3000
Output current rms $I_S(mA)$		5 (5A) - 50(50A) $\pm 0.2\%$	10 (10A) - 100(100A) $\pm 0.2\%$	10 (20A) - 100(200A) $\pm 0.2\%$	10 (30A) - 100(300A) $\pm 0.2\%$
Secondary coil resistance $R_S (\Omega)$		30	25	30	53
Measure resister with $\pm 12V$ RM (Ω)		@50Amax 180(max)	@100Amax 75(max)	@200Amax 75(max)	@300Amax 5(max)
		@150Amax 40(max)	@300Amax 10(max)	@600Amax 5.0(max)	@600Amax 2(max)
Measure resister with $\pm 15V$ RM (Ω)		@50Amax 240(max)	@100Amax 110(max)	@200Amax 110(max)	@300Amax 82 (max)
		@150Amax 60(max)	@300Amax 15(max)	@700Amax 10(max)	@750Amax 2(max)



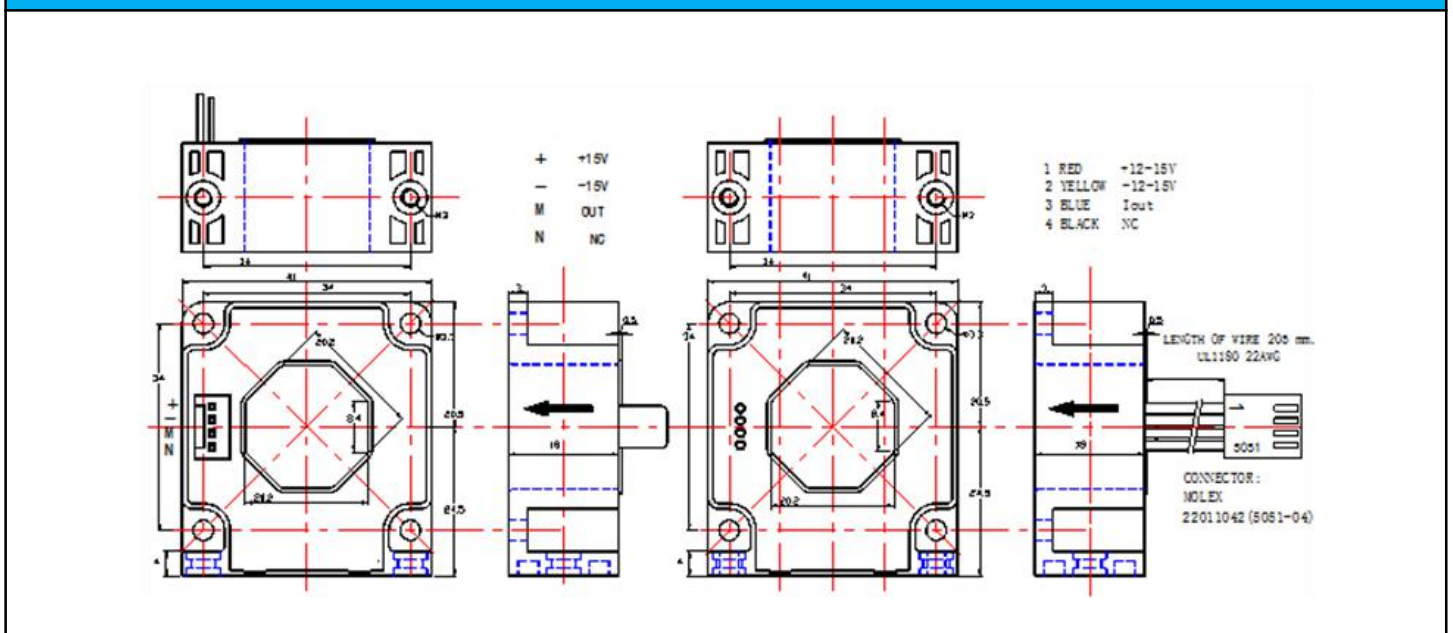
Cheemi Technology Co., Ltd

Supply voltage VC(V)		$\pm 12 \sim \pm 18$
Offset current IOE(mA)	@ $I_p=0$	$\leq \pm 0.2$
Offset drift(mA)	@ $-40^\circ\text{C} \sim 85^\circ\text{C}$	± 0.5
Accuracy XG(%)	@IPN, T=25°C	$< \pm 0.1$
Linearity error ϵ_r (%FS)	@ $I_p=0 \sim \pm I_{pn}$	≤ 0.1
Di/dt accurately followed A/ μs		> 100
Response time τ_{ra} (μs)	@100A/ μS , 10%-90%	< 1.0
Power consumption IC(mA)		$\leq 20 + I_p X(N_p/N_s)$
Bandwidth BW(KHZ)	@ -3db	DC...100
Insulation voltage Vd(KV)	@ 50HZ, AC, 1min	3

General data

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-40 ~ +125
Mass M(g)	50
Plastic material	UL94-V0.
Standards	EN60947-1:2004
	IEC60950-1:2001
	EN50178:1998
	SJ 20790-2000

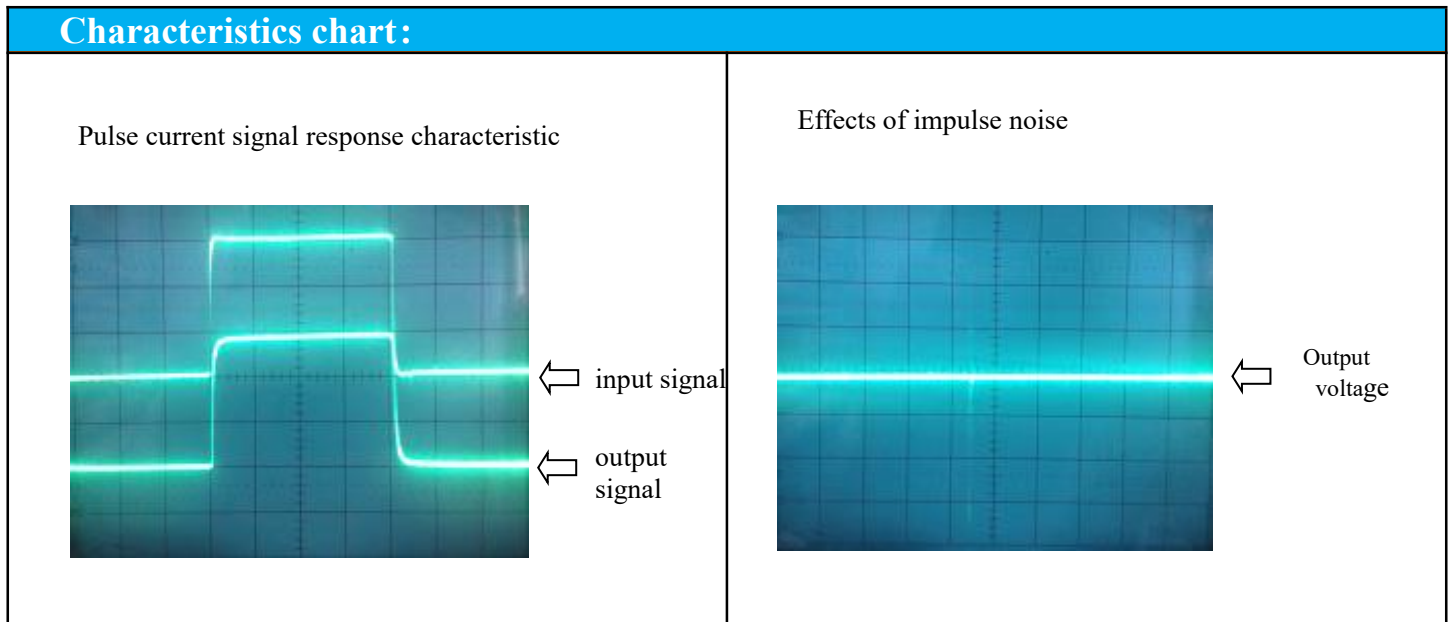
Dimensions(mm):



Remarks

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





Directions for use
<ul style="list-style-type: none">➤ When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.➤ I_s will be in a forward direction when the I_p flows according to the direction of arrowhead.➤ Custom design is available for the different rated input current and the output voltage.➤ The dynamic performance is the best when the primary hole is fully filled with.➤ The primary conductor should be $\leq 120^\circ\text{C}$.
WARNING : Incorrect wiring may cause damage to the sensor.

