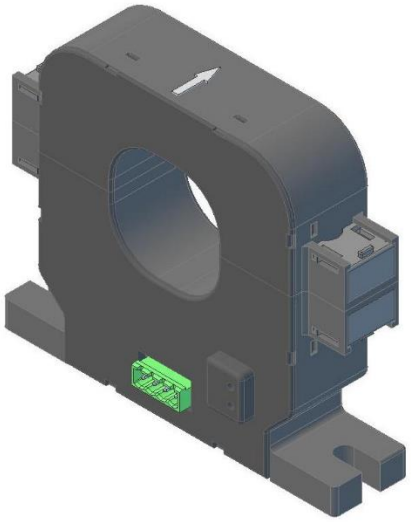
Hall Effect Current Sensor HJA780T02

I_{PN} = 780A



Features

- Split core type.
- Open loop current sensor.
- Voltage output.
- **Protection from miss-wiring in any combination.**

Applications

. Battery Monitoring
. Solar String Monitoring
. EV charger

Advantage

. Excellent accuracy
. Very good linearity
. Low temperature drift
. Optimized response time
. No insertion losses
. High immunity to external interference

Application domain

. Commercial
. Industrial

Maximum ratings

Parameter	Symbol	Value	Unit
Maximum supply voltage (working) -25 to 85°C	±Uc	+18.0	V
Primary conductor temperature	T_S	85	°C
maximum steady state primary current -25 to 85°C	I_{PN}	780	A
RMS Voltage For Ac Insulation Test,50Hz,1 Min	U_d	5.5	KV
Comparative Tracking Index	CTI	275	V
Insulation Resistance	R_{IS}	>100	MΩ

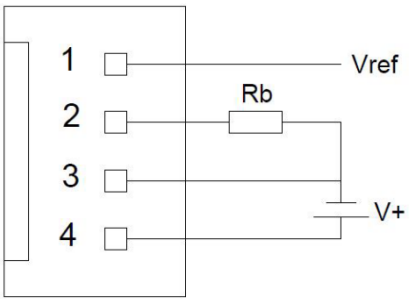
Date:27.08.2018
Rev: 01- Provisional

Electrical data

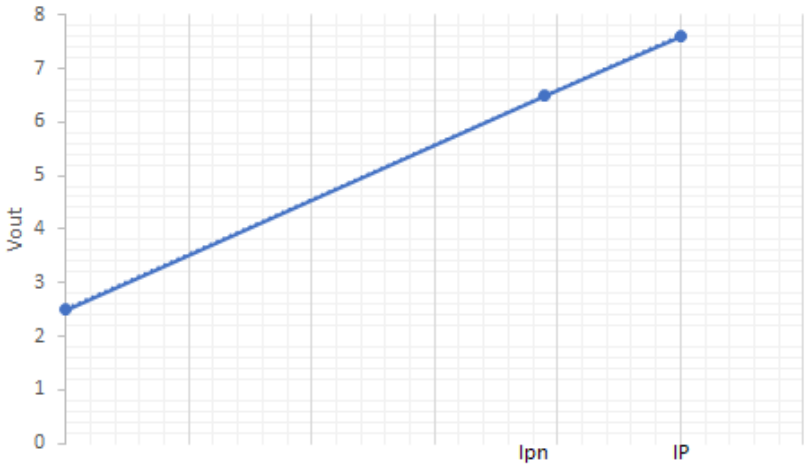
HJA780T02

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Primary current, range DC	I_P			1000		A
Burden Resistance	R_b			10000(min.)		Ω
Output Voltage @I_{PN} = 0A	V_{oFF}	R_b = 10KΩ, @25°C		2.5 ± 0.025		V
Output Voltage @I_{PN} (V_{out})	V_{out}	R_b = 10KΩ, @25°C		2.5 + 4		V
Supply Voltage	$\pm U_C$			+12 to +18		V
Current Consumption	I_C			<18Typical		mA
Overall Accuracy At I_{PN}	X_G	@25°C		1		%
Linearity Error	Σ_L	10 to 100% of I_{PN} - 25 to 85 °C		0.5		%
Output low pass filter cut off frequency (fc)	F_C			1.4		Hz
Temperature coefficient of V_{out}	TV_{OE}	-25 to +85 °C		< 500		PPM / K
AC attenuation		@ 1500Arms, 50Hz		-24		dB
Frequency Bandwidth @ -3db (fbw)	BW	-3dB, small signal bw		DC to 1.4		Hz
Ambient Operating Temperature	T_A			-25 to +85		°C
Ambient Storage Temperature	T_S			-40 to +100		°C
Mass	m			1000		g

Connection Diagram

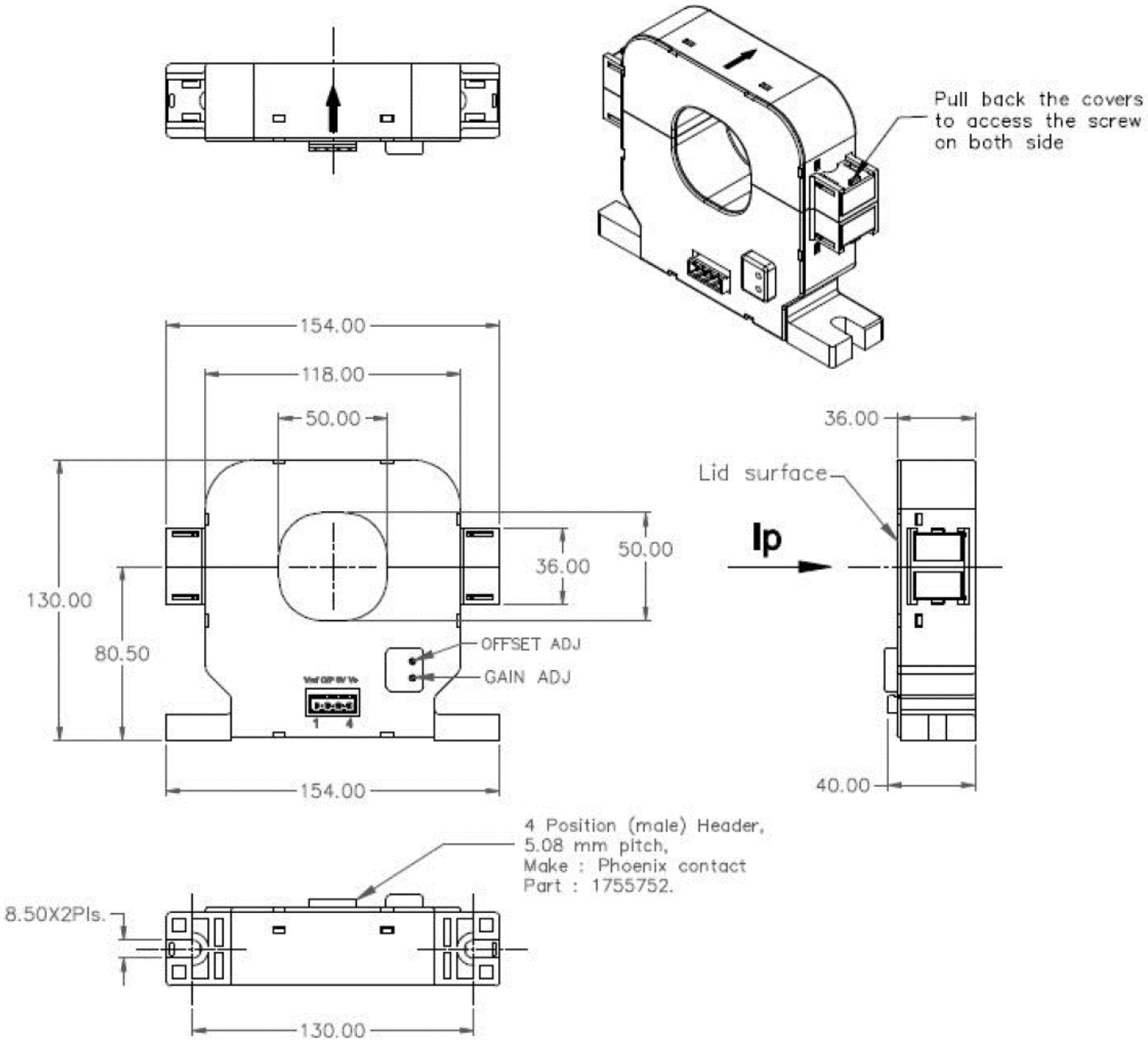


Input & Output Characteristics HJA780T02



Mechanical dimensions in mm

Tolerance: ±0.5mm



Pin Out Details	
Pin 1	V_{REF} (In / Out)
Pin 2	Output (O/P)
Pin 3	Ground (0V)
Pin 4	VCC (+V)

Safety

● This Current Transformer must be used in electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the manufacturer's operating instructions.


● Caution, risk of electrical shock
When operating the Current Transformer, certain parts of the module can carry hazardous voltage (eg. primary busbar, power supply).
● Ignoring this warning can lead to injury and/or cause serious damage.
● A protective housing or additional shield could be used.
● Main supply must be to be disconnected.
● **Ensure proper connection of Power supply to avoid damage to the Sensor.**
● If IP flows in the direction of the Arrow I_{Sek} is positive
● Over currents (»I_{PN}) or the missing of the supply voltage can cause an additional remaining magnetic offset
● The temperature of the primary conductor may not exceed 100 ˚C
● This Sensors may only be used in electrical or electronic systems which fulfil the relevant regulations (Standards, EMC Requirements…)
● Pay attention to protect non-isolated high-voltage current carrying parts against direct contact (e.g. with a protective housing)
● When installing this sensor, you must ensure that the safe separation (between primary circuit and secondary circuit) is maintained over the whole circuits and their connections
● Disconnecting the main power must be possible