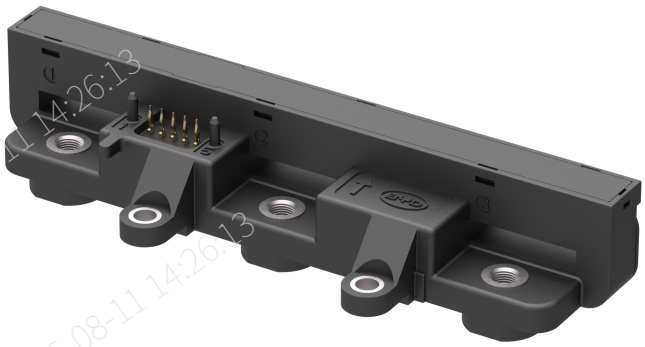
Description

For the electronic measurement of currents: DC, AC, pulsed, mixed, with a galvanic isolation between the primary circuit and the secondary circuit.

Features

- Open loop transducer using the Hall effect
- Low voltage application
- Unipolar +5VDC power supply
- Primary current measuring range up to ±200A ~ ±1100A
- Operating temperature range: -40℃< T_A <+125℃
- Output voltage: fully ratio-metric(gain and offset)



I_{PN} =±200A ~ ±1100A

Automotive Applications

- Starter Generators
- Inverters
- HEV applications
- EV application
- DC/DC converter.

Advantages

- High accuracy
- Excellent linearity
- Low temperature drift
- Wide frequency bandwith
- No insertion losses
- Very fast response time

TYPES OF PRODUCTS		
Type	**Primary nominal current I_{PN} (A)**	**Primary current measuring range I_{PM} (A)**
BCX6-200IOV1WN	200	±200
BCX6-300IOV1WN	300	±300
BCX6-400IOV1WN	400	±400
BCX6-500IOV1WN	500	±500
BCX6-600IOV1WN	600	±600
BCX6-700IOV1WN	700	±700
BCX6-800IOV1WN	800	±800
BCX6-900IOV1WN	900	±900
BCX6-1000IOV1WN	1000	±1000
BCX6-1100IOV1WN	1100	±1100

Parameters Table

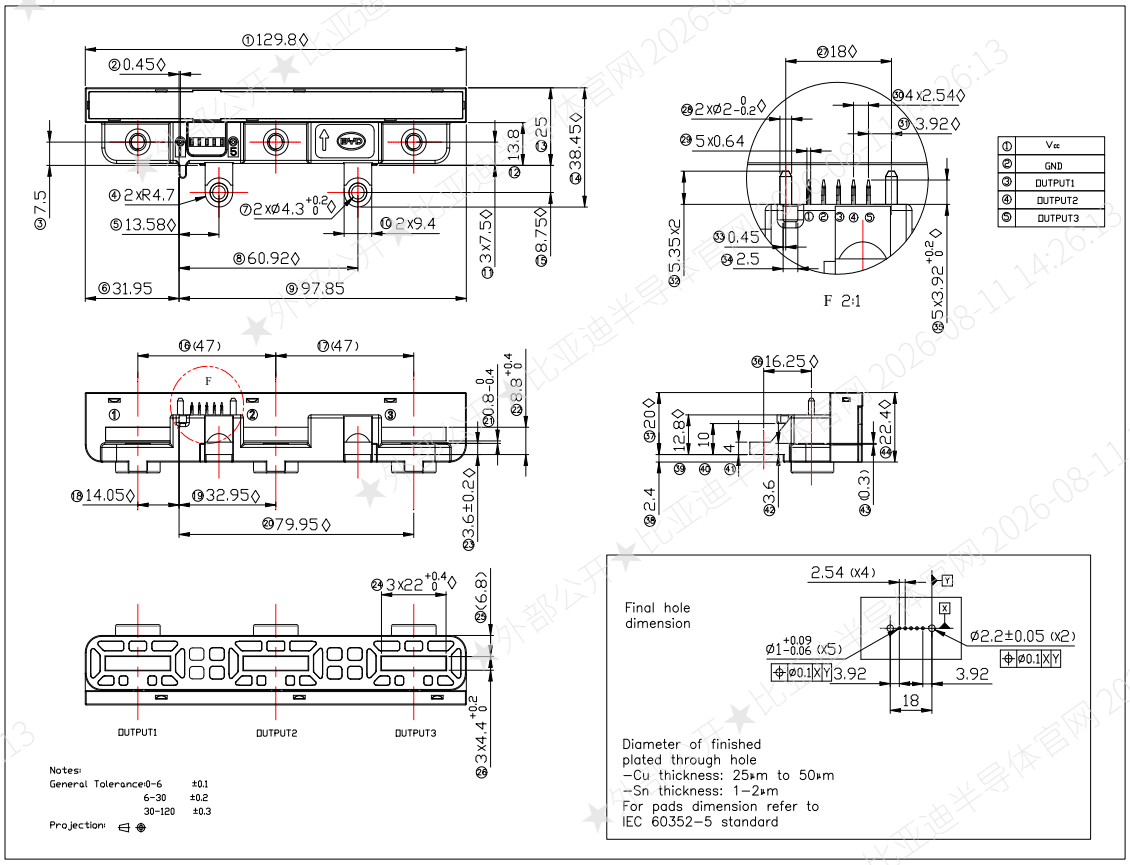
PARAMETERS	SYMBOL	UNIT	VALUE			CONDITIONS
			Min.	Typ.	Max.	
Electrical data						
Supply voltage	Vcc	V	4.75	5	5.25	
Current consumption	Icc	mA	-	30	48	@Uc=5V
Output Load Resistance	R_L	kΩ	4.7	-	-	@V_{OUT} to GND
Output Load Capacitance	C_L	nF	-	1	-	@V_{OUT} to GND
Performance data						
Output voltage	V_{OUT}	V	V_{OUT}=(Vcc/5)×(2.5+G×I_P)			@T_A = 25°C
Output Linearity	ε_L	%	-1	-	1	@T_A = 25°C ≤1000A
			-3	-	3	@T_A = 25°C >1000A
Overall Accuracy	ε_G	%	-1	-	1	@T_A = 25°C ≤1000A
			-3	-	3	@T_A = 25°C >1000A
Quiescent Output Voltage(1)	V_{OUTQ}	V	2.5V±20mV			@T_A = 25°C, B=0
Electrical offset voltage	V_{OE}	mV	-20	±10	20	@T_A = 25°C @Uc=5V
magnetic offset voltage	V_{OM}	mV	-	±3	-	@T_A = 25°C @Uc=5V

Sensitivity	G	mV/A	-	2000/I_{PN}	-	@T_A = 25°C @Uc=5V
Quiescent Output Voltage Temperature Coefficient	TC_{OUTQ}	mV/°C	-0.05	-	0.05	
Sensitivity Temperature Coefficient	TCS_{ENS}	%/°C	-0.03	-	0.03	
Step response time to 90% I_{PN}	t_r	µS	-	-	8	
RMS voltage for AC isolation test 50/60Hz/1 min	V_d	KV	-	-	3	
Output Bandwidth	BW	kHz	40	-	-	@Small signal -3dB
General data						
Ambient operating temperature	T_A	°C	-40～+125			
Ambient storage temperature	T_S	°C	-40～+125			

Notes:

(1) The indicated offset voltage is the one after the core hysteresis is removed.

Dimensions BCX6-IOV1WN (in mm. 1 mm = 0.0394 inch)



◆Instructions of use

1. When the test current passes through the sensors, you can get the size of the output voltage. (Warning: wrong connection may lead to sensors damage).
2. Based on user needs, the output range of the sensors can be appropriately regulated.
3. According to user needs, different rated input currents and output voltages of the sensors can be customized.

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