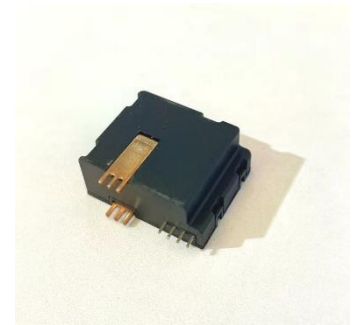




Circuit Board Mounted Flux Gate Current Sensor DXE60-B2/52

$$I_{PN} = 60 \text{ A}$$

The DXE60-B2/55 is a advanced Circuit Board Mounted flux gate current sensor that use high technology to bring the best combination of performance and reliability, It is rated for a primary current measurement range of $\pm 60\text{A}$ dc with the accuracy $\pm 0.02\%$. It is calibrated and temperature compensated for improved accuracy using multi-point temperature characterization.



DIFFERENTIATION

- Convenience: Can be directly installed on the PCB board, ensuring accuracy while saving installation space
- high-voltage isolation: Ensure the safety and reliability of electrical equipment, and avoid mutual interference of currents between electrical equipment
- Accuracy: Multi-point temperature characterization and calibration for improved accuracy over temperature range.
- Magnetic immunity: Flux gate configuration and optimized magnetic circuit allow for excellent performance in diverse magnetic environments.
- Flexible: Customizable on-board firmware to meet specific application requirements.

Features

- Easy installation
- Excellent accuracy
- Very good linearity
- Low temperature drift
- Wide frequency bandwidth
- Optimized response time

Application Domain

- Battery testing equipment
- Battery production equipment
- DC power supply equipment
- Electronic load equipment
- Power control



Electrical data

Parameter	specifications			Condition
	Minimum value	Standard value	Maximum value	
Rated input current $I_{PN=}$		± 60 Adc		/
Measure range $I_{PM=}$			± 72 Adc	1Min/Hour
Power supply voltage V_c	± 11 Vdc		± 16 Vdc	Full range
Current consumption I_c	± 20 mA	± 80 mA	± 92 mA	I_{PM} range
Current change K_N	1000:1			Input : Output
Rated output current I_{SN}		60 mA		Rated input current
Measuring resistance R_M		30 Ω	50 Ω	

Accuracy- Dynamic Parameter

Project	Symbol	Test conditions	Numerical value			Unit
			minimum	standard	maximum	
Accuracy	X_e	@0%~50% I_{PN}	--	--	0.006	A
		@50% I_{PN} ~ I_{PM}	--	--	0.02	%RD
Ratio error	X_{Ge}	@0%~50% I_{PN}	--	--	0.006	A
		@50% I_{PN} ~ I_{PM}	--	--	0.02	%RD
Angle error	X_{Pe}		--	--	0.02	crad
Linearity	ϵ_L	--	--	--	100	ppm
Temperature drift coefficient	TCI	--	--	--	5	ppm/K
Time drift coefficient	TT	--	--	--	5	ppm/month
Power supply anti-interference	TV	--	--	--	5	ppm/V
Zero offset current	I_o	25 \pm 10 $^{\circ}$ C	--	--	0.006	mA
Zero offset current	I_{oT}	Within the full operating temperature range	--	--	± 0.01	mA
Ripple current	I_n	DC-10Hz	--	--	5	ppm
Dynamic response time	T_r	di/dt=100A/us	--	--	1	us
		rise to 90% I_{PN}				
Current following speed	di/dt	--	100	--	--	A/us
Bandwidth(- 3 dB)	F	--	0	--	100	kHz



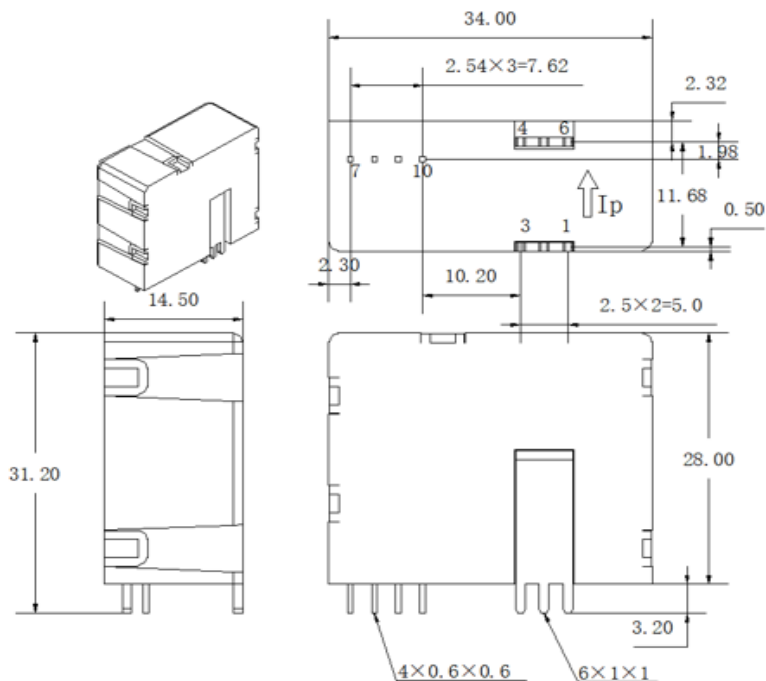
General characteristics

Project	Symbol	Test conditions	Numerical value			Unit
			minimum	standard	maximum	
Operating temperature range	T _A	--	-40	--	85	°C
Storage Temperature Range	T _s	--	-45	--	85	°C
Weight	m		20g±5g			g

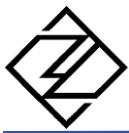
Safety characteristics

Project		Symbol	Test conditions	Numerical value			Unit
				minimum	standard	maximum	
Withstand voltage	Between primary and secondary edges	V _d	50Hz,1min		2.5		KV
Transient isolation withstand voltage	Between primary and secondary edges	V _w	50us		5		KV

Mechanical dimension (mm)



接线定义					
1..3	I _{p+}	7	OUT	8	+15V
4..6	I _{p-}	9	-15V	10	GND



Mechanical characteristics

- General tolerance: ± 0.5 mm
- Connector: 2510-4P (spacing 2. 54MM)

NOTE

- When the direction of the input current I_P is consistent with the direction indicated by the arrow in the outline drawing, the output current I_S is in the forward direction.
- Please try to locate the primary conductor at the center of the probe aperture as much as possible.
- The through-hole is made of metal material, so the through-hole wire cannot be an exposed cable. The through-hole wire must be insulated.
- This module is a standard sensor, please contact us for special applications.
- We reserve the right to modify this sensor manual without prior notice.