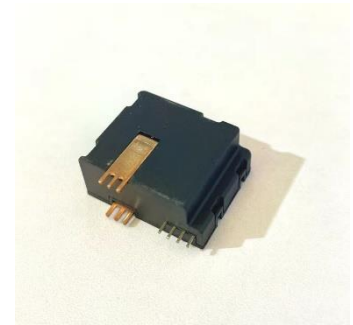




## Circuit Board Mounted Flux Gate Current Sensor DXE60-B2/55

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

The DXE60-B2/55 is an advanced Circuit Board Mounted flux gate current sensor that uses 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  $\pm 0.05\%$ . 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 $I_{PN=}$		$\pm 60$ Adc		/
Measure range $I_{PM=}$			$\pm 72$ Adc	1Min/Hour
Power supply voltage $V_c$	$\pm 11$ Vdc		$\pm 16$ Vdc	Full range
Current consumption $I_c$	$\pm 20$ mA	$\pm 80$ mA	$\pm 92$ 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 $\Omega$	50 $\Omega$	

Accuracy- Dynamic Parameter

Project	Symbol	Test conditions	Numerical value			Unit
			minimum	standard	maximum	
Accuracy	$X_e$	@0%~40% $I_{PN}$	--	--	0.012	A
		@40% $I_{PN}$ ~ $I_{PM}$	--	--	0.05	%RD
Ratio error	$X_{Ge}$	@0%~40% $I_{PN}$	--	--	0.012	A
		@40% $I_{PN}$ ~ $I_{PM}$	--	--	0.02	%RD
Angle error	$X_{Pe}$		--	--	0.02	crad
Linearity	$\epsilon_L$	--	--	--	100	ppm
Temperature drift coefficient	TCI	--	--	--	10	ppm/K
Time drift coefficient	TT	--	--	--	10	ppm/month
Power supply anti-interference	TV	--	--	--	10	ppm/V
Zero offset current	$I_o$	25 $\pm$ 10 $^{\circ}$ C	--	--	0.012	mA
Zero offset current	$I_{oT}$	Within the full operating temperature range	--	--	$\pm 0.02$	mA
Ripple current	$I_n$	DC-10Hz	--	--	20	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



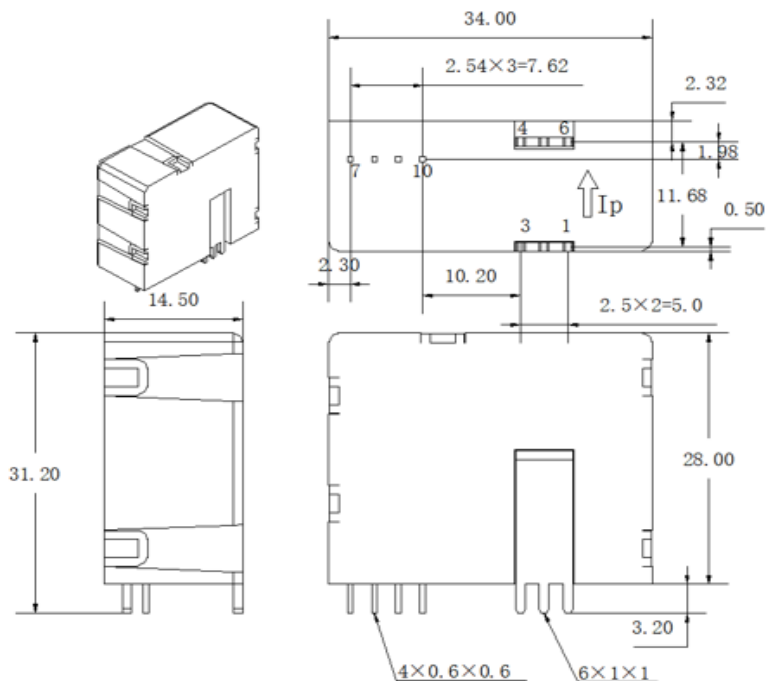
General characteristics

Project	Symbol	Test conditions	Numerical value			Unit
			minimum	standard	maximum	
Operating temperature range	T <sub>A</sub>	--	-40	--	85	°C
Storage Temperature Range	T <sub>s</sub>	--	-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 <sub>d</sub>	50Hz,1min		2.5		KV
Transient isolation withstand voltage	Between primary and secondary edges	V <sub>w</sub>	50us		5		KV

Mechanical dimension (mm)



接线定义					
1..3	I <sub>p+</sub>	7	OUT	8	+15V
4..6	I <sub>p-</sub>	9	-15V	10	GND



## Mechanical characteristics

- General tolerance:  $\pm 0.5$  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.