Product Description

Hall Sensor Series

Hall Zero Flux Sensor

AEGA

ATRAK ENERGY GOSTAR ARAS

Hall zero Flux Sensor

Introduction

Conductive bus bar I through the sensor core, when the measured current through the core to produce a current with the measured current proportional to the magnetic field, installed in the core air gap in the magnetic induction Hall element and the magnetic field proportional to the voltage signal, this signal is processed by the amplifier, the output of a DC current with the measured DC current proportional to the output voltage.

Operating principle of Hall zero flux current sensor

Hall zero-flux principle of Hall closed-loop current sensors fundamentally solve the inherent shortcomings of Hall components.

Hall zero-flux current sensor (also known as Hall zero-flux current comparator) is the use of iron core to the magnetic field generated by the bus current aggregation, through the Hall components of the detected magnetic field is converted into a voltage signal, through the amplification of the voltage signal and the current converter output current, so that the current through the wire packet on the role of the poly-magnetic core, so that the wire packet in the core of the magnetic field produced by the bus current in the core produced by the magnetic field of equal size and opposite direction, the iron core, the magnetic field produced by the bus current in the core When the size is equal and the direction is opposite, the magnetic flux in the core is zero, and the number of ampere-turns of the wire package is always equal to the number of ampere-turns on the bus.

Common external dimensions			
Model number specification	HLA-I	HLA-II	HLA-III
Measuring current	Bidirectional DC/pulsating/AC	Unidirectional DC/Pulsating	Unidirectional DC
Structural form	Removable through-hole type		
Accuracy	0.2、0.1%		
Linearity	0.02%	@ 5%~120%F.S	
Turns error	＜±0.04%		
Typical ratio	5KA/1A		
Response time	≤1uS	≤1uS	≤10mS
Temperature effect	＜20*10-6/℃		
Typical power consumption	＜10VA/KA		
Supply voltage	AC220V/50HZ、60HZ（±5%）		
Operating temperature	Operating temperature		
electrical insulation resistance	＞20MΩ		
Effect of external magnetic fields	Tolerance <0.1%/IN at 100GS/m		
Output signal	0-75mV/0-5V/4-20mA or according to the user's requirements		