HENGLI HYDRAULICS

Universal Miniature Controller

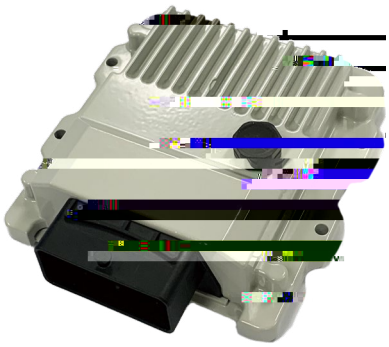
Closed-loop and open-loop control for hydraulic components

HLEC6448A

Universal Miniature Controller

Features:

- Outstanding current control accuracy and response time for the electromagnetic coil.
- High-performance 32-bit ARM Cortex-M4 MCU, master frequency up to 168MHz.
- Wide voltage range: 8V~36V.
- Suitable for harsh operating temperatures: -40 ~+75 .
- Port protection and fault detection .
- IP66/ IP67 protection grade .
- Rigorous EMC and reliability testing standards .
- C/ Simulink development environment available.



Technical data:

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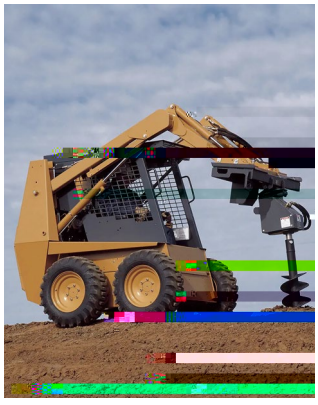
Working voltage	8V~36V DC
Working temperature	-40 ~+75
Storage temperature	-40 ~+85
Relative temperature	45%~90%
Preventive grade	IP66/67
Electrical protection	Power port input anti-reverse protection, output overcurrent short circuit protection.
	Signal port input/ output overvoltage and overcurrent protection.
Communication mode	CAN2.0B/RS232
Unit dimensions	141.7mm*123mm*40.4mm
Port resources	IG ignition key wakes up
	CAN2.0B*2
	10HZ~15KHZ frequency input *4
	Resistive analog input *4
	Analog input, 0~5 V or 4~20 mA*7
	Analog input 0~32V*2
	Switch input *8
	3.2A Lower side PWM Current closed loop output *4
	2A High side PWM 50~1000Hz output or switching output*8
	0~5V analog output *2
	5V/ 150mA fxed analog output *2
	13mA low level drive *3
Connector	2209129-1/TE/64PIN
Type of product test	High and low temperature test, temperature and humidity test, vibration test, impact test, drop test, salt spray test, EMC test.

Test standard:

Test standard	
Electromagnetic compatibility test	Test item: Radiated emissions, transient anti-interference conduction of power supply end, high current injection, anti-interference radiation, ESD, power input surge anti-interference, power input fast pulse anti-interference. Testing standard: ISO 7637-2; ISO 11452; ISO 13766.
High temperature operating test	Test item: Continuous operation test at high temperature, High temperature start-stop test . Testing standard: GB/T2423; IEC60068.
Low temperature operating test	Test item: Continuous operation test at low temperature, Low temperature start-stop test. Testing standard: GB/T2423; IEC60068.
High and low temperature impact test	Test item: High and low temperature shock (low temperature at -40 , high temperature at 85), high and low temperature conversion time of 2 min. Testing standard: GB/T2423; IEC60068.
Temperature and humidity cycle test	Test item: Temperature range -40 ~85 , Rate of temperature change 3 /min. Testing standard: GB/T2423; IEC60068.
Vibration test	Test item: Sinusoidal vibration, variable frequency sinusoidal vibration, random vibration. Testing standard: GB/T2423; IEC60068.
Salt spray test	Test item: Salt spray test. Testing standard: GB/T2423; IEC60068.
Drop test	Test item: Drop test to simulate transportation conditions . Testing standard: GB/T2423; IEC60068.

Areas of application:

Small construction machinery and small agricultural machinery (such as skid loaders, reach stackers, small sized loaders, tractors, etc.)



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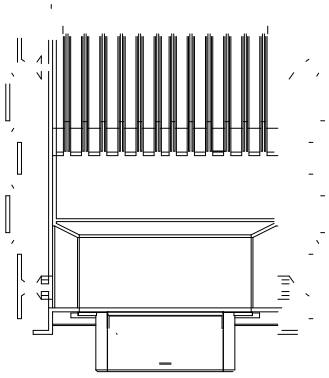
Due to the sophisticated nature of the networked world of today, increasingly higher demands are now being placed on your mobile machinery. Modern requirements include equipment intelligence, informatization, e f ciency, reduced energy consumption, safety and reliability. Mobile machinery manufacturers have also racked their brains to create new technical innovations and personalized products in order to stand out in the f erce competition of global markets.

In line with this trend, and based on our extensive experience in the field of controllers, we provide customers with a variety of tailor-made solutions and competitive products. The HLEC6448A universal miniature controller is designed for closed-loop and open-loop control of hydraulic components; it features fast processing speeds, powerful functionality and absolute safety and reliability even in extremely harsh working conditions. All connections and ports are designed on the basis of universal application.

The HLEC6448A universal miniature controller has been fitted with a flexible I/O terminal, to support all manner of communications, including CAN and RS232, in order to satisfy customer demands.

Controller dimensions: