ZDRV.C14-200S2-R-A

PRODUCT MANUAL

Features

- Simple wiring,quick operation,knob speed adjustment
- Sensorless,sensorless vector control
- Motor line distance can reach up to 50 meters
- Support 485 Modbus (RTU) protocol
- Comprehensive fault detection and protection functions

Driver

Model Definition

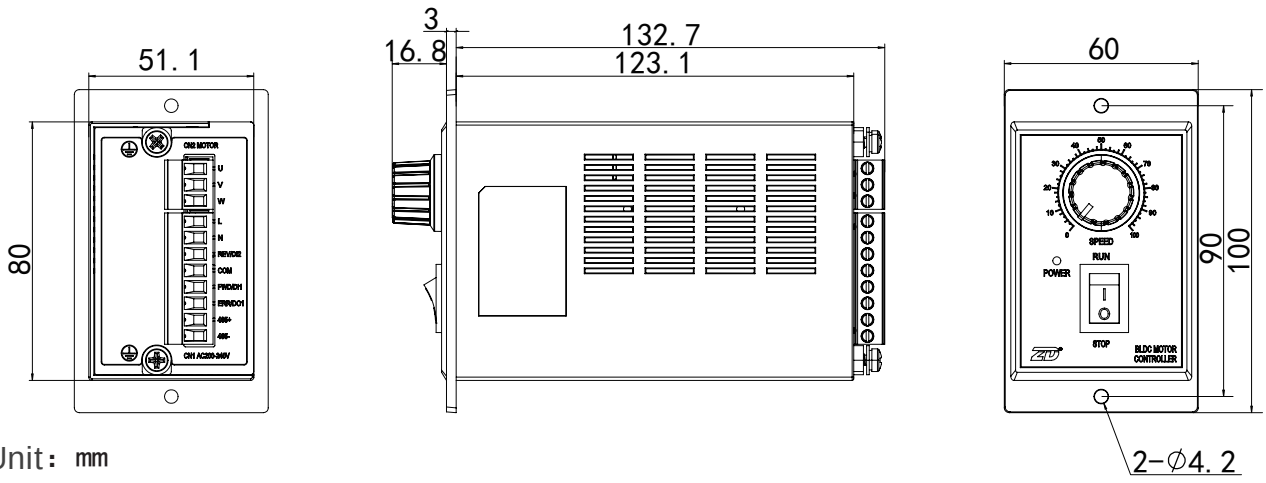
Z DRV. C14 -200 S2 - R - A

① ② ③ ④ ⑤ ⑥ ⑦

Mark	Description	Content
①	Company	Z:Zhongda
②	Model	DRV:Brushless Motor Driver
③	Version	C14:C14 Series
④	Power	200:Max. output power 200W
⑤	Voltage	S2:高压AC220V
⑥	Communication	R:Support 485_MODBUS (RTU)
⑦	Structure	A:Panel Type

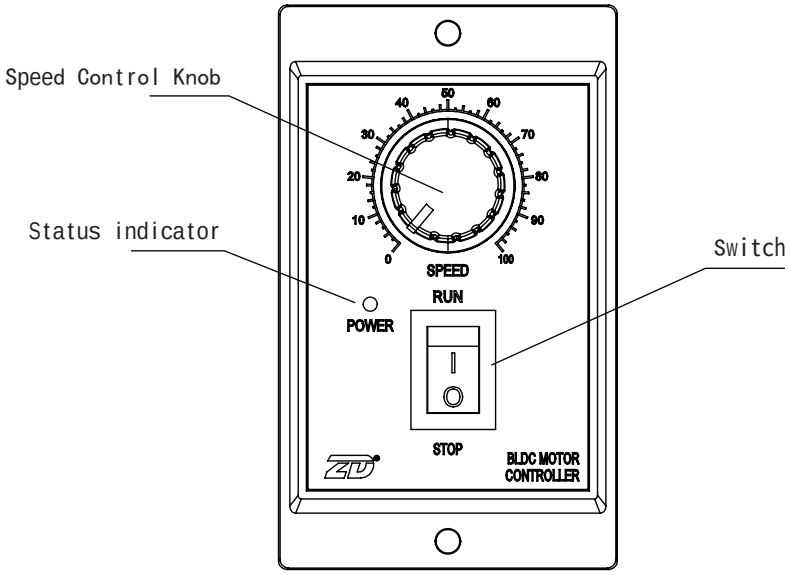
Compatible Motor

Dimensions



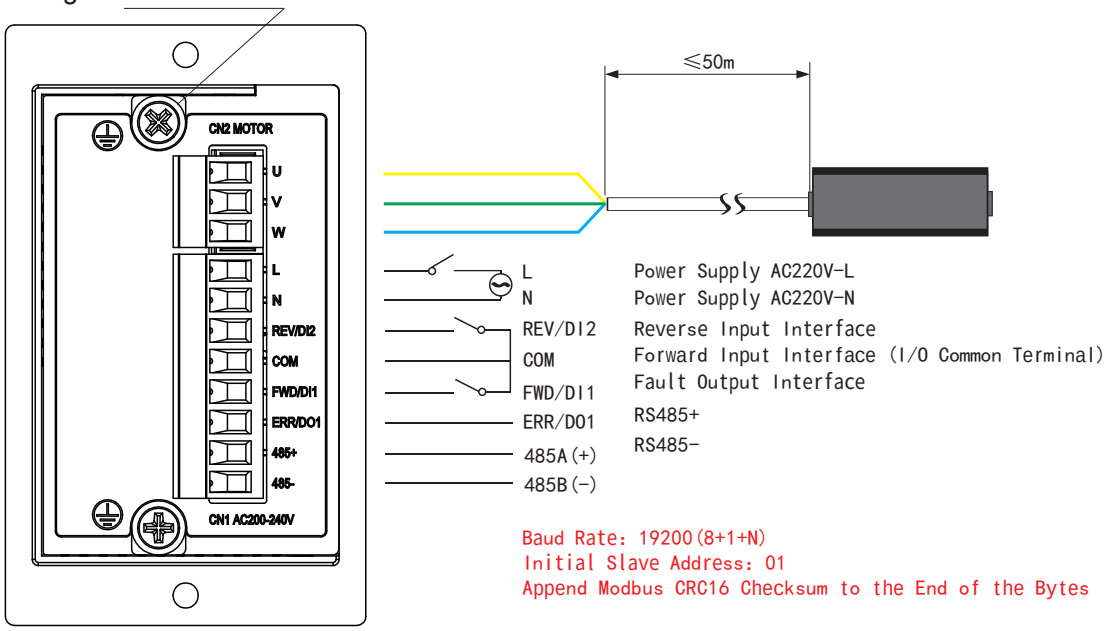
Unit: mm

Panel Instruction



Wiring Definition

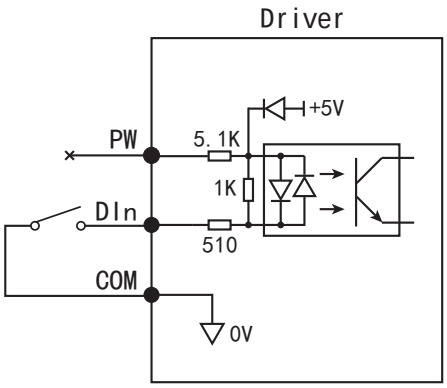
The driver grounding screw must be grounded before use



Baud Rate: 19200(8+1+N)
Initial Slave Address: 01
Append Modbus CRC16 Checksum to the End of the Bytes

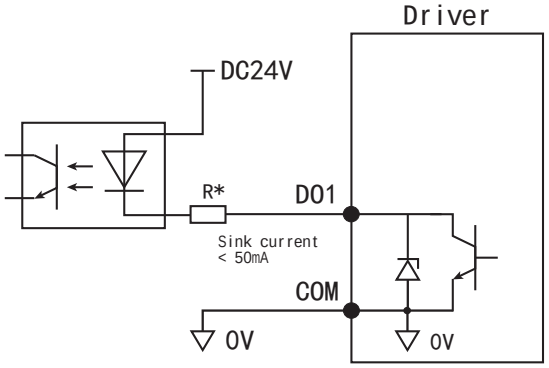
Note: There is no order for U, V and W Different line sequences will only change the running direction.

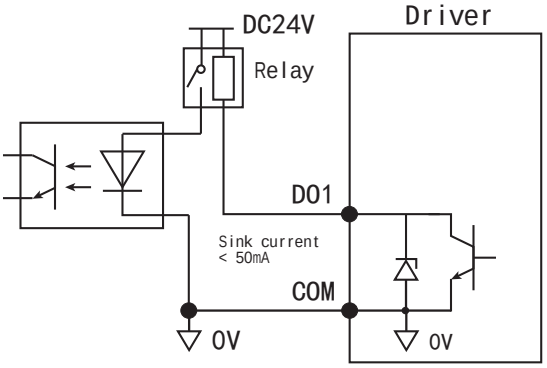
Input signal circuit



- The switch quantity wiring method requiresthe customer to preparetheir own power supply (5V) or use an internal power supply;
- To preventthe motor from switchingdirectionsathighspeeds, it isbestto stop the motor for switching;
- The GND of other controllersneedsto be connectedto the COM of the driver.

Output signal circuit





- The signal output of the driver is an open-drain output. The state of the signal doesn't indicate the voltage level of the signal, but indicates the on-off state of the internal transistor.
- External power supply: DC5 ~ 30 V, 50 mA or less.
- Recommended resistancevaluewhen connectingcurrentlimiting resistor R*
  DC24V：2.7kΩ~5.1kΩ (1W)
  DC5V：510~1kΩ (0.25W)

Failure and maintenance

The following table shows that when the driver detects a fault and stops, the LED (red and green) flashes alternately to display the fault indication. The user can troubleshoot and repair according to the fault code.

The green light flashes once for 5, The red light flashes once for 1
Fault code = (Green flashes × 5) + Red flashes

Fault Code	Fault Name	Cause	Solution	Treatment
E. OCH	Hardware Overcurrent	0 Green 1 Red	1. Acceleration and deceleration are too fast 2. Voltage is too low 3. Driver power is too low 4. Sudden load 5. Phase short circuit 6. Strong external interference source	1. Increase the acceleration and deceleration time 2. Check input voltage 3. Select high-power driver 4. Check if the load is normal 5. Check/replace the cable or motor 6. Check if there is a strong interference source
E. OC	Software Overcurrent	0 Green 2 Red		
E. OL	Motor overload	0 Green 3 Red	1. The power supply voltage is too low 2. Motor power is too large 3. The motor is stalled or the load suddenly changes	1. Check the power input 2. Set the rated current of the motor 3. Reduce the load and check the motor and machinery
E. OC1	U phase overcurrent	0 Green 4 Red	1. Acceleration/ deceleration too fast 2. Insufficient driver power 3. Sudden load application 4. Phase-to-phase short circuit 5. U/V/W phase loss	1. Increase the acceleration/ deceleration time 2. Select a high-power driver 3. Check if the load is normal 4. Check/replace the cable or motor 5. Check if U/V/W are connected securely
E. OC2	V phase overcurrent	1 Green 0 Red		
E. OC3	W phase overcurrent	1 Green 1 Red		
E. OV	DC bus overvoltage	1 Green 2 Red	1. Input voltage too high 2. Rapid forward/reverse switching 3. Being dragged by external force and in power generation state	1. Check the power supply voltage 2. Increase the forward and reverse switching time 3. Add an external braking device
E. LV	DC bus undervoltage	1 Green 3 Red	1. Low power voltage 2. Over-acceleration triggering external power protection 3. Supply voltage drop 4. Driver hardware fault	1. Verify power input 2. Increase acceleration time 3. Fault reset 4. Contact technical support
E. LOC	Locked rotor	1 Green 4 Red	1. Overload 2. Motor stuck	1. Check the motor mechanical connection 2. Check the motor connection line
E. OH	Driver overheating	2 Green 0 Red	1. Excessive load 2. Driver hardware abnormality	1. Cooling treatment 2. Derating
E. POUT	Motor phase loss	2 Green 1 Red	1. U/V/W output phase loss 2. Driver hardware abnormality	1. Check the connection between the driver and the motor 2. Contact technical support