1. Product Overview

Thank you for choosing Rtelligent R series digital stepper drive.

R series stepper drive, which surpasses the performance of common analog stepper drive comprehensively based on the new 32-bit DSP platform developed by TI, and adopting the micro-stepping technology and PID current control algorithm design. The R series stepper drives have the features of low noise, low vibration, low heating and high-speed high torque output, it is suitable for most stepper motors by integrated with the micro-stepping technology.

The R60-HB driver can select the running current and subdivision through the DIP switch. There are 4 subdivisions and 4 current selections. It has features of overvoltage, undervoltage and overcurrent protection. Its input and output control signals are optically isolated.

Power supply	24 - 68 VDC
Output Current	DIP switch setting, 4 options, maximum 4.2 amps (peak)
Current control	PID current control algorithm
Micro-stepping settings	DIP switch settings, 4 options
Speed range	Use the suitable motor， up to 3000rpm
Resonance suppression	Automatically calculate the resonance point and inhibit the IF vibration
Parameter adaption	Automatically detect the motor parameter when drive initialize, optimize the controlling performance
Pulse mode	Support direction & pulse, CW/CCW double pulse, A/B quadrature pulse input
Pulse filtering	2MHz digital signal filter
Idle current	The current is automatically halved after the motor stops running

We hope that our products with excellent performance can help you to complete the sports control program successfully.

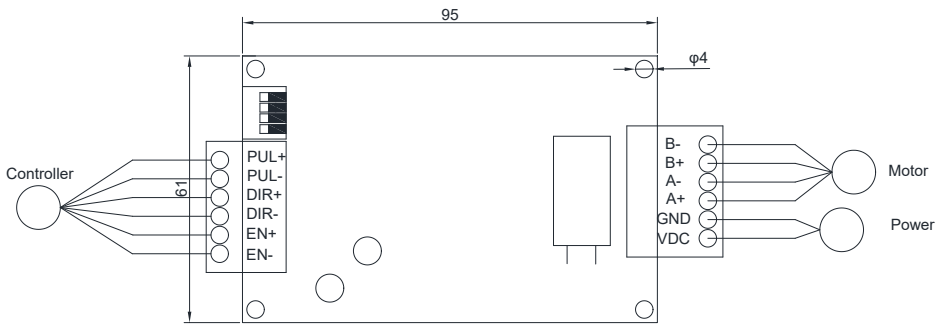
Please read this technical manual before using the products.

2. Application Environment and Installation

2.1 Environmental requirement

Item	Rtelligent R60-HB
Installation environment	Avoid dust, oil and corrosive environment
Vibration	0.5G（4.9m/s2） Max
Operating temperature/humidity	0℃ ~ 45℃ / 90% RH or less (no condensation)
Storage and transportation temperature	-10 ℃ ~ 70 ℃
Cooling	Natural cooling / away from the heat source
Waterproof grade	IP54

2.2 Drive installation dimensions (mm)



2.3 DIP setting current subdivision

Current setting

	SW1	SW2	
2.4A	ON	ON	Other currents can be set by the debug software
2.8A	OFF	ON	
3.5A	ON	OFF	
4.2A	OFF	OFF	

Micro-stepping settings

	SW3	SW4	
1600	ON	ON	Other subdivisions can be set by the debug software
3200	OFF	ON	
6400	ON	OFF	
12800	OFF	OFF	

2.4 Debug software to set current and subdivision