

## Waterproof ESC FT85CS\_WP Manual V1.6

### Specifications:

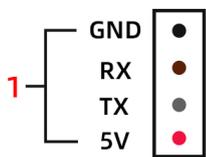
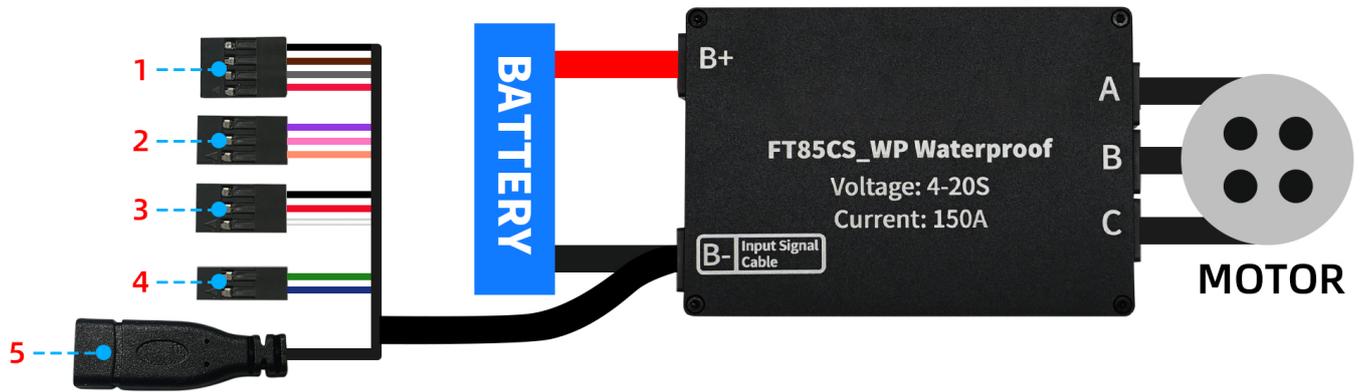
- Firmware: V1.6 and above (firmware update via ESC Tool supported)
- Voltage: 14V-85V (safe for 4-20S)
- Continuous Current: 85V/150A (Values depend on the mounting, ambient temperature and air/water circulation around the device.)
- Peak Current: 250A
- BEC: 5V@1A
- Power Wire: 8 AWG (1200mm)
- Motor Wire: 8 AWG (195mm)
- Programmable Tool: ESC TOOL
- PWM Frequency Control: YES
- Multiple Speed Gear Limit Control: YES (UART)
- Regenerative Capacity: YES
- Communication Ports: USB, CAN, UART, PPM, ADC
- Control Signals Support: PPM, ADC, UART (compatible with all VX Series remotes)
- Size: L93.8mm\*W63mm\*H26mm (with aluminum enclosure)

### Feature:

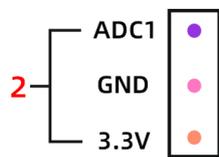
- Fully sealed with IP68 water-proof rate.
- Adopting ARM Cortex-M4 structure with the max 240MHZ, improves PWM switching frequency and the motor RPM.
- Programmable via ESC Tool to be compatible with multi-types of motors, different battery voltages and multiple control methods.
- Programmable via remote controller VX4Pro(remote firmware version: VX4Pro\_V1.2 and above).
- Supporting motor FOC with low working noise and smooth starting.
- Supporting save / load configuration files via ESC Tool.
- Supporting adaptive variable PWM frequency control.
- Supporting real-time data and fault alerts.
- Supporting multiple speed levels: Level 1 (Low), Level 2 (Medium), Level 3 (High).
- Supporting Sensorless Mode: IPDS, HFPI, OPEN.
- Startup Modes Support: IPDS (sensorless), HFPI (sensorless), OPEN (Sensorless Open-Loop Startup).
- Traction Control: YES.
- Supporting control types: Current, Duty Cycle, Speed Control.
- Supporting emergency stop and shutdown.
- Support safe power-on protection (in PPM&ADC control modes only).
- Protection functions: low and high voltage protection, MOSFET over-temperature and over current protection, battery overcharge and discharge protection.

# ATO

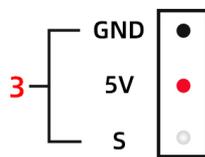
## Wiring diagram:



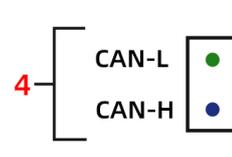
1.UART



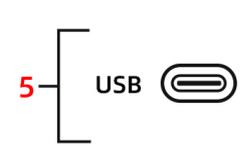
2.ADC



3.PPM



4.CAN



5.USB