

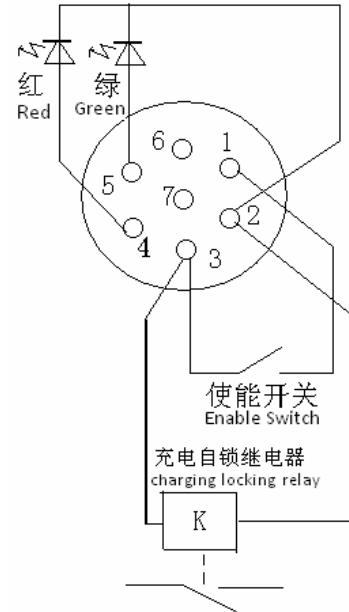
Connection Instruction of Control Interface



SP1312/S❖



SP1310/P❖



■ I、 Use 7-pin connector SP13 series for the control interface of charger, defined as follows:

- 1-pin: charging enable control line -
- 2-pin: negative pole
- 3-pin: charging enable control line +
- 4-pin: external LED Red (connect 3K ohm in series to in the interior of charger)
- 5-pin: external LED Green (connect 300 ohm in series to in the interior of charger)
- 6-pin: serial communications receiving (with regard to charger)
- 7-pin: serial communications sending (with regard to charger)

■ II、 Utilization of charging locking function

When charger powers up, outputs 11V between 2 and 3-pin (maximum load current can't exceed 50mA). Users can connect a relay coil G5V-2-12V on 2 and 3-pin, then control charging self-locking circuit through contacts to realize self-locking function of vehicles during charging. Ensure no short-circuit on 2-pin and 3-pin, otherwise, charger will not work correctly or will be damaged.

■ III、 Utilization of charging indicator

If external LED is required, LED with model TC-618D is a must and 2,4,5-pin should be used.

■ IV、 We set up one of these two control modes at factory as below:

1. **Battery protector option** (without CAN module option). Switch on or off the charging through charging enable control line:

- (1) Charging process: When charger powers up, external signal from the battery protector board starts constant current charge until reaches maximum voltage, then constant voltage charge until current falls to a preset value and charging closed. If external signal is removed charging stops.
- (2) Function of enabling control line: Please connect 1 and 3-pin (you can use relay or opticalcoupler) if need charging then charger starts working; Disconnect the pins, charger stops. Re-connecting 1 and 3-pin, it re-starts to charge.
- (3) Detailed wiring mode of enabling control: Use the contact of external relay and connect 1 with 3-pin. Or control the enabling wire through opticalcoupler and current direction is from 3-pin to 1-pin and current-output capability of opticalcoupler should be up to more than 1mA.

2. **CAN module option** to communicate with BMS. Connect CAN bus through plugging in CAN module (Model TC-619B), then use 2, 3, 6, 7-pin. CAN ID and CAN module type is configured at factory according to customer's requirement. Specified and CAN communication protocol supported is set up before delivery.