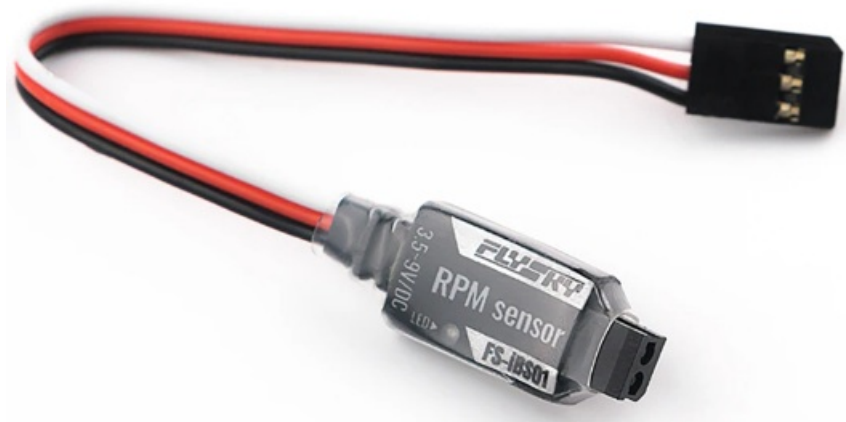


FLYSKY FS-iBS01 RPM Sensor User Manual

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FLYSKY FS-iBS01 RPM Sensor



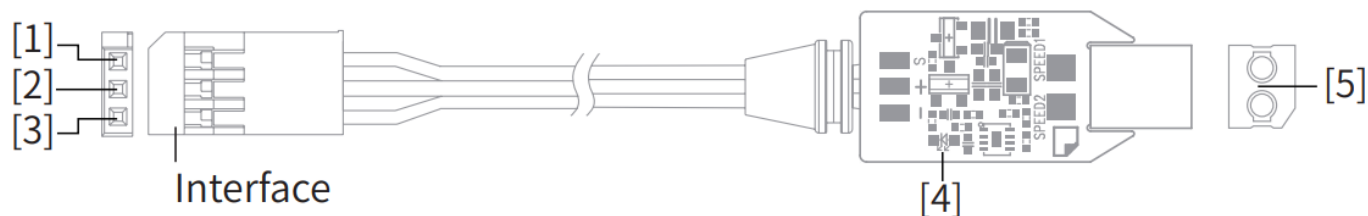
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Introduction

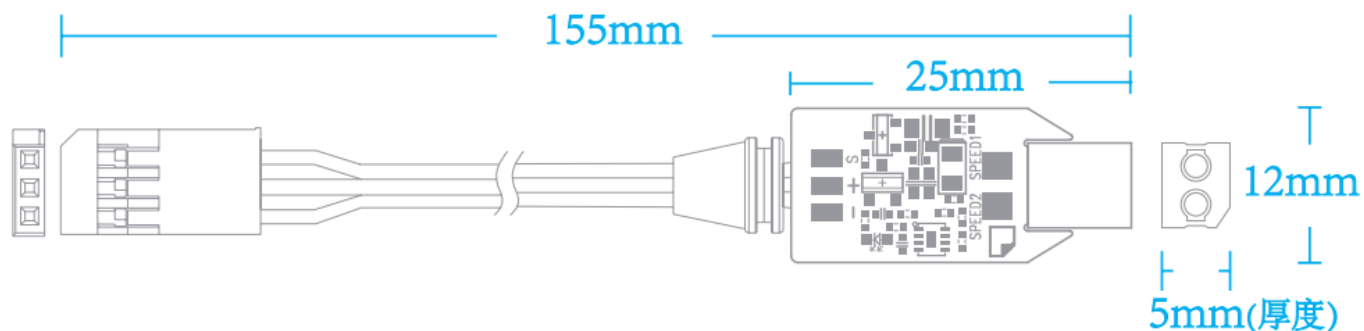
FS-iBS01 is an optical perception sensor that adapts to Flysky AFHDS 3 enhanced version receiver in compliance with i-BUS2 protocol. It features compact design, easy installation, PPX6 waterproof, real time rotate speed data return, rotate speed measurement accuracy (10RPM), and adaption to a variety of models.

Overview



- 1. Signal pin
- 2. + (Power anode)
- 3. – (Power cathode)
- 4. LED
- 5. Optical perception detection element

Dimensions



Product Specifications

- **Product Type:** FS-iBS01
- **Compatible Devices:** The receivers with i-BUS2 protocol (such as FTr8B, FTr12B, INr6- HS and other Flysky AFHDS 3 enhanced version receivers)
- **Compatible Models:** Cars, boats, airplanes, etc.
- **Protocol:** i-BUS2
- **Measurement Accuracy:** 10RPM
- **Measurement Range:** 60 ~ 300000RPM
- **Input Power:** 3.5 9V/DC
- **Working Current:** 20mA (5 V)
- **Online Update:** No
- **Water Proof:** PPX6
- **Dimensions:** 155mm (Length)
- **Weight:** 4.0g
- **Temperature Range:** -20°C ~ + 85°C
- **Humidity Range:** 20% ~ 95%
- **Certifications:** CE, FCC, UKCA

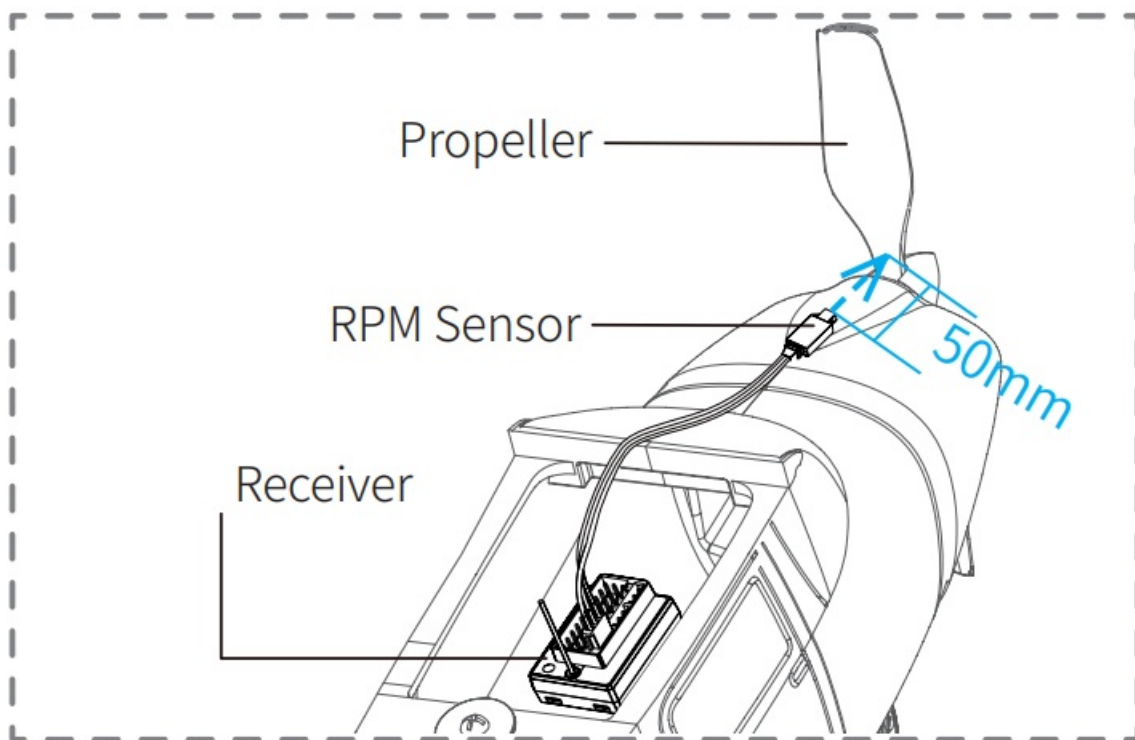
Installation

Mounting Instruction

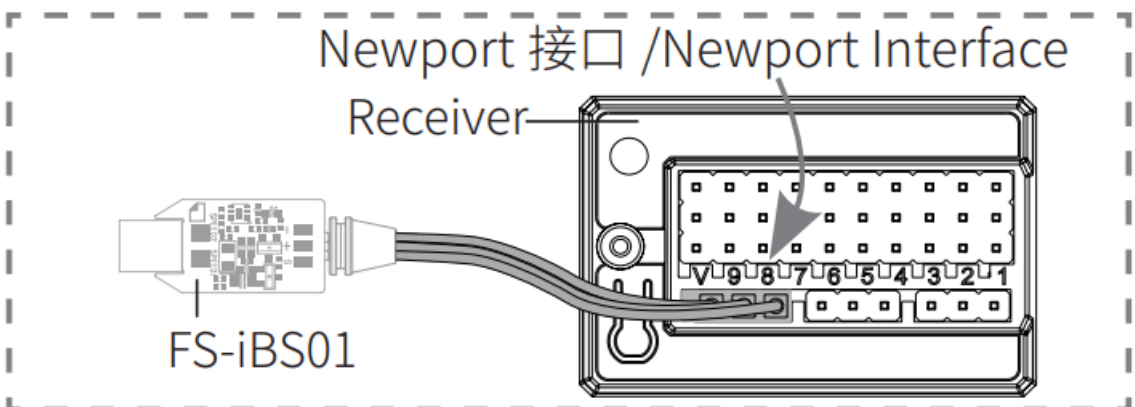
Follow the steps below to install:

1. Use 3M stickers to fix the optical perception sensor at the appropriate location of the model as shown in the figure. And make the optical perception detection element perpendicular to the reflective surface of the motor rotor. It should be noted that the fixed surface should be flat. You can also use a cable tie to tie it to the model. In this case, you should control the force.
2. Connect the servo interface to the Newport interface of the receiver as shown. Set the protocol of the corresponding Newport interface of the receiver to i-BUS2 at the transmitter side that has bound with this receiver. As a result, you can view the relevant information at the transmitter side.

Installation Diagram



Connection Diagram



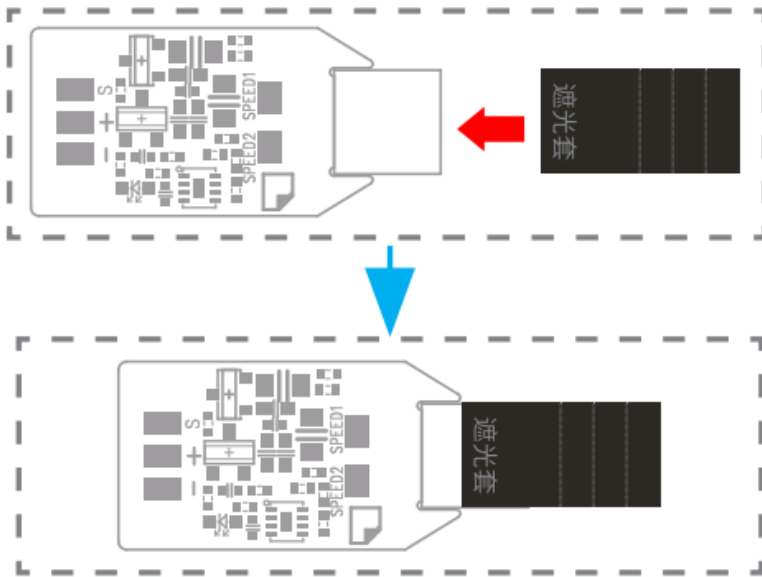
Notes:

1. Install this sensor close to the blade or motor rotor. The distance between the optical perception detection element and the propeller or rotor is not more than 50 mm or 30 mm (with a light shield).
2. The cable length may vary to different applications. If you need to add an extension cable, please note that the FS-iBS01 interface is a servo interface, and for the pin definition, refer to the description in the previous Overview section.
3. The transmitters that support i-BUS2 protocol: Noble (firmware version V2.0.93 or later), Noble Lite (firmware version V1.0.10 or later), Noble pro, PL18 (firmware version 1.0.55 or later) and PL18 Lite (firmware version 1.0.65 or later).
4. If the optical perception sensor is working properly, the LED is solid on at this time.
5. If the optical perception sensor is connected to power supply but no i-BUS2 signal is detected, the LED flashes slowly at this time.

Instructions for Use of the Light Shield

If the sensor is used under strong outdoor light, the strong light will cause measurement errors of the sensor. In this case, it is necessary to use the light shield. The details are as follows:

1. Measure and confirm the appropriate length of the light shield and cut off the excess along the cutting line.
2. Use the light shield to cover the optical perception detection element as shown in the figure.



Notes:

1. There are three cutting lines on the light shield for your choice to get appropriate length for different applications.
2. The longer the length of the light shield, the better the effect. However, the distance between the light shield and the object to be measured is not allowed to exceed 30mm.

Attentions:

- Ensure that the sensor is connected properly to the receiver, failure to do so may result in damage to the sensor.
- Ensure that the sensor is connected properly to i-BUS2 interface of the receiver before use.
- Do not touch a sensor during engine motor rotation.

Certifications

FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by

turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

EU DoC Declaration

Hereby, [Flysky Technology co., ltd] declares that the Radio Equipment [FS-iBS01] is in compliance with RED 2014/53/EU.

The full text of the EU DoC is available at the following internet www.flyskytech.com/info_detail/10.html

Environmentally Friendly Disposal

Old electrical appliances must not be disposed of together with the residual waste, but have to be disposed of separately. The disposal at the communal collecting point via private persons is for free. The owner of old appliances is responsible to bring the appliances to these collecting points or to similar collection points. With this little personal effort, you contribute to recycle valuable raw materials and the treatment of toxic substances.

UKCA Compliance Statement

Satisfies all the technical regulations applicable to the product within the scope of UK Radio Equipment Regulations (SI 2017/1206); UK Electrical Equipment (Safety) Regulations (SI 2016/1101); and UK Electromagnetic Compatibility Regulations (SI 2016/1091).



Customer Support

Manufacturer: Shenzhen FLYSKY Technology Co., Ltd.

Address: 16F, Huafeng Building, No. 6006 Shennan Road, Futian District, Shenzhen, Guangdong, China

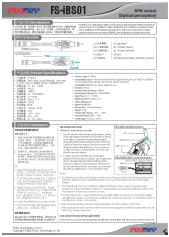
Figures and illustrations in this manual are provided for reference only and may differ from actual product appearance. Product design and specifications may be changed without notice

<http://www.flysky-cn.com>

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Documents / Resources

	<p>FLYSKY FS-iBS01 RPM Sensor [pdf] User Manual</p> <p>FS-iBS01 RPM Sensor, FS-iBS01, FS-iBS01 Sensor, RPM Sensor, Sensor</p>
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References

- [FLY](#)