Futaba 1M23N26716

RPM sensor
(Optical type)

SBS-01RO

Instruction Manual

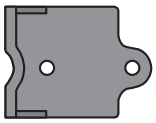
Thank you for purchasing Futaba's SBS-01RO RPM sensor. This sensor, used in conjunction with a telemetry enabled transmitter/receiver, is used to indicate the number of rotations (propeller, rotor, etc.) of the item to which it is attached. The number of rotations of a model in the sky is a system which can be checked with a transmitter etc. To maximize your enjoyment, and to ensure proper sensing, please read through this manual thoroughly. We also encourage you to retain the manual for future reference should the need arise.

●The SBS-01RO is designed for use with Futaba telemetry systems.

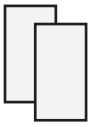
Contents

SBS-01RO

Sensor Stay



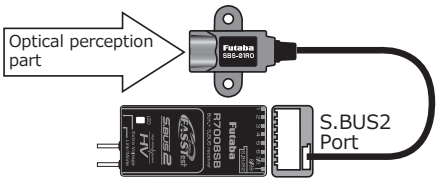
Double-stick tape × 2



Sensor

Wiring

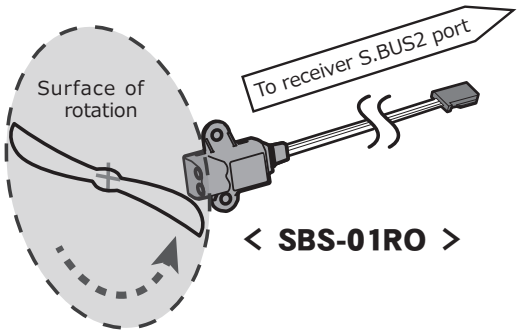
The SBS-01RO may only be used with telemetry enabled receivers that offer S.BUS 2 port. Please refer to the manual(s) that accompanied your transmitter and/or receiver for proper connection methodology.



Telemetry
S.BUS2 Receiver

Brightness

The SBS-01RO uses an optical sensor. To operate properly the prop or rotor being measured must be fairly brightly lit. Typically the sensor will not operate properly indoors, on cloudy days or in early mornings/late evenings when the angle of the light striking the prop or rotor is bad. When one of these conditions exist, the RPM will be displayed as 0.



Propeller/Rotor

Use : RPM Sensor
Length：160mm (6.3")
Weight：4.9g (0.173oz)
Voltage : DC3.7 ～ 7.4V
Range : 360 ～ 300,000RPM/blades

For Helicopter

The SBS-01RO is not optimal for helicopter use due to the large distance between the rotor and sensor, as a result, the reading can be unstable. We recommend the **SBS-01RM** magnetic sensor be utilized for helicopters.

ID Number

Each sensor has a unique ID number printed on it. If more than one of the same type of sensor is utilized in a model, the ID will need to be input into the sensor menu of your transmitter.

⚠WARNING

To utilize the SBS-01RO sensor, connect it to the S.BUS2 port of the Futaba telemetry enabled receivers.
■ The SBS-01RO will not function properly if connected to an S.BUS port or other channel ports.

Be careful of the connector polarity.
■ Because of the case construction, reversing the polarity may cause trouble or sparking from the wiring.

Mount the sensor in accordance with the installation method described below.
■ If the SBS-01RO drops out during flight, it cases erratic operation or loss of control.

Vibration-proof the PC board and mount the SBS-01RO where it will not be exposed to fuel and water.
■ Electronic parts are used at the PC board. Take protective measures against vibration, shock, high temperature, and so forth.

When mounting the SBS-01RO to the fuselage, be sure there is some slack in the wiring cable.
■ If the cable is too tight, vibration may cause the wire to break or the connector to be dislodged and cause a malfunction.

Always perform an operation check after assembling.
■ Do not fly until inspection is complete.

Don't touch a sensor during engine motor rotation.
■ When a rotation portion is touched, there is a possibility of carrying out a large injury.

Do not use the SBS-01RO with anything other than an R/C model.

Don't make different connection from a manual.
■ It will break down, if different connection is made.

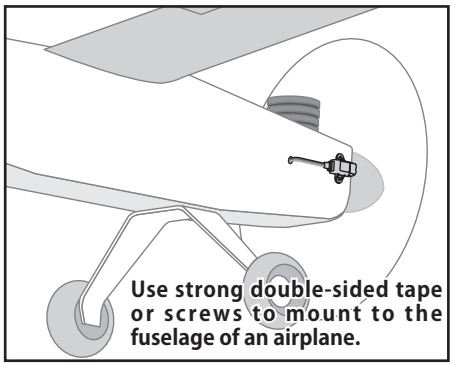
Slot Number Setup

Please note that the proper default slot for this accessory is number 2. Information on how to change the slot assignment is included in the transmitter's manual.

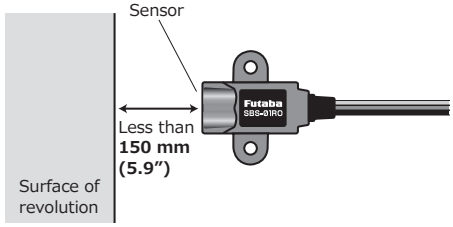
Installation

● Sensor Mounting Example

[Airplane]



The distance between the sensor and the surface of rotation less than 150 mm.

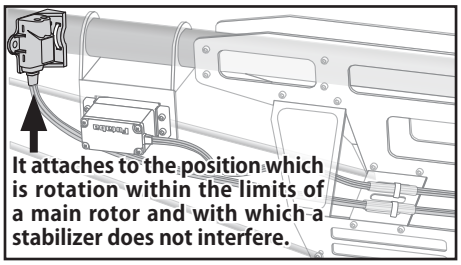


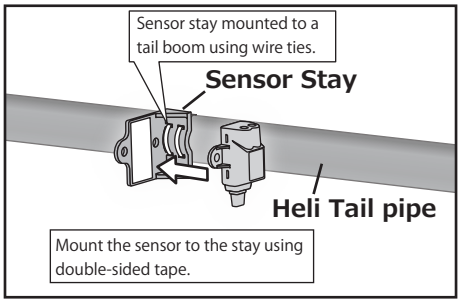
*Mount the sensor as close as possible to the prop or rotor.

*The color of the prop or rotor could cause the RPM to not be detected.

*The SBS-01RO only works in sunlight.

[Helicopter]





Number of blades

The sensor defaults to two blades. If the prop/rotor has more than 2 blades this option must be changed in the transmitter. (Refer to the transmitters manual.)

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