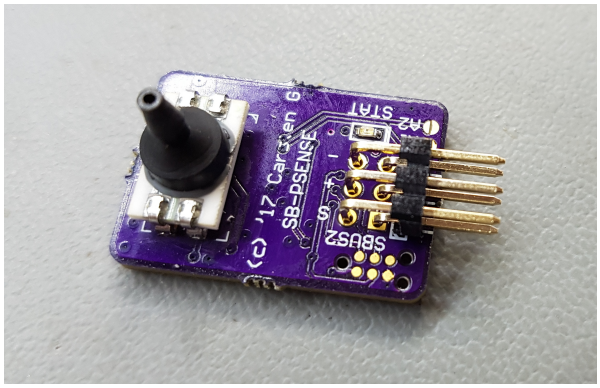
SB-PSENSE Air pressure sensor for Futaba SBUS2 or Jeti EX Bus

native support for Futaba 18MZ, FX-22, 14SG and Jeri EX Bus devices

2017-10-12



Introduction:

The SB-PSENSE Air pressure sensor is a small device that connects to the SBUS2 connector of a Futaba receiver or to the EX Bus connector of a Jeti receiver. The sensor allows you to measure the air pressure for you pneumatic retract system. The measured air pressure will be shown on your transmitter (possible to set alarm levels for low pressure). The air system connects to the SB-PSENSE device using a 3mm Festo tubing (or similar brand). When used with Futaba system you can have up to 4 SB-PSENSE in the same system (se “configuration” later), in Jeti systems there can only be one SB-PSENSE.

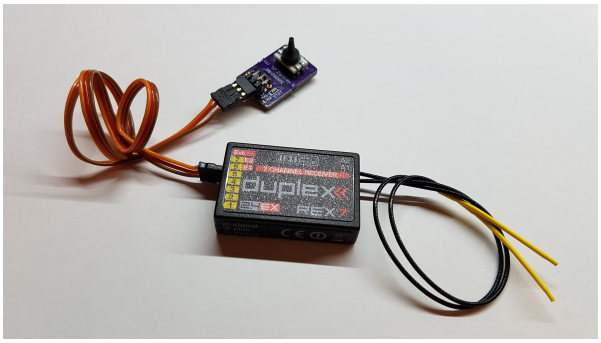
Specifications:

Parameter	Min	Max
Supply voltage	4.5 V	12 V
Supply current	11 mA	14 mA
Measurement range	0 Bar 0 PSI	10 Bar 145 PSI
Measurement accuracy	Approx +/- 5 %	
Size	L29 x W21 x H15mm	
Weight	Less than 5 gram	
Temperature	-10 degC	+60degC

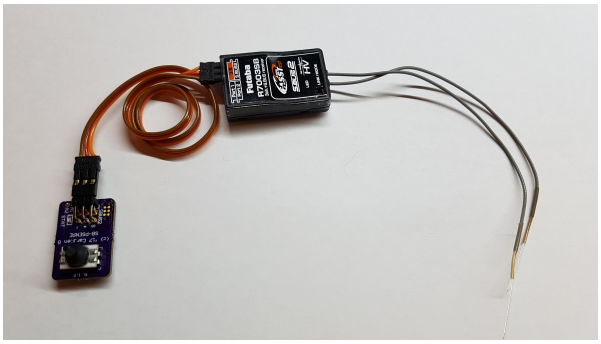
Connections:

The SB-PSENSE device has two 3 pin “servo connector” type SBUS2/EX Bus connectors. These two connectors are connected in parallel, it does not matter which of the two connectors you use.

You connect one of these using a female to female servo cable to the receivers SBUS2 (Futaba) or EX Bus (Jeti) connector. For Futaba only, the other connector on the SB-PSENSE can be used to connect other SBUS2 sensors. The SB-PSENSE has a port for 3 mm Festo tubing coming from the air system.



SB-PSENSE connected to Jeti receiver



SB-PSENSE connected to Futaba SBUS2 receiver

Transmitter, Jeti:

Use the JetiBox menu to change between metric (Bar) and imperial (PSI) data. The sensor will present itself as one single telemetry value (SB-PSENSE: Pressure). After changing imperial/metric you need to do a “Auto” on the “Sensors/Logging Setup” page to update the sensor.

The SB-PSENSE only supports the new EX Bus system from Jeti!

Transmitter, Futaba:

The SB-PSENSE sends the airspeed number out on telemetry slot 1 as default. This can be changed, see later. In order to use the SB-PSENSE you need to configure your transmitter. On the 18MZ (or 14 SG), select the sensor type "TEMPERATURE" on Slot 1. Please read the transmitter manual for instructions on how to do this. The pressure will then be shown as Bar in x 10 (35 on the display means 3.5 bar)

When the SB-PSENSE is powered on it will show the current slot number configured using flashes on the red LED (1 flash= slot 1 etc). After the slot number has been shown, the device will proceed to "calibration")

Configuration, Futaba:

Default the SB-PSENSE will deliver the air pressure value on slot 1 to the Futaba transmitter. The slot number can be changed using the two solder bridges A1 and A2 on top of the device (just beside the 2 bus connectors). If you close A1 the device will be located at slot 2, bridging A2 and opening A1 will put it at slot 3, bridging both A1 and A2 will put it at slot 4.

Configuration, Jeti:

Use the JetiBox emulation on the transmitter to set imperial (PSI) or metric (Bar). Currently you can only have one single SB-PSENSE connected in a Jeti system.

Calibration:

The SB-PSENSE has no calibration procedure as it has already been calibrated during manufacture.

Order code:

SB-PSENSE –X

X: S=Futaba SBUS2, J=Jeti EX Bus