



PowerBox Systems®

World Leaders in RC
Power Supply Systems



PBS-V60



PBS-VARIO



PBS-T250



PBS-P16

PRODUCT DESCRIPTION

The PBS range of sensors from **PowerBox-Systems** comprises a number of extremely accurate sensors which were developed for use with all current radio control systems. The very latest sensor components in conjunction with sophisticated filter technology guarantee the highest possible precision. All our sensors are housed in compact, high-quality plastic or machined aluminium cases, emphasising the high quality standards which these units satisfy!

All the sensors automatically detect the telemetry system to which they are connected, in the majority of cases making them Plug 'n Play - without requiring a **USB interface** at all. However, if adjustments to address or alarm threshold settings prove to be necessary with a Futaba / Multiplex or Hott system, changes can be made quickly and simply using Terminal and the **USB Interface. CORE, ATOM** and Jeti users are able to adjust parameter settings directly from the transmitter.

CONNECTING SENSOR TO THE RECEIVER

All sensors are connected by plugging the three-core uni lead into the receiver's Telemetry input. As already mentioned, the sensors recognise the radio control system automatically. This means that the sensor can be used without the need to make any further adjustments. With Jeti systems you do need to note that the sensors only work when connected to the EX-BUS. For this reason you may have to activate an EX-BUS telemetry input at the receiver from the transmitter.

SETTINGS WITH FUTABA, MULTIPLEX AND GRAUPNER

If you are using one of these telemetry systems, it is possible to adjust addresses, slots and alarm thresholds. This is the procedure: run the Terminal program (available for downloading from our website) on your PC, and connect the sensor to the **USB Interface Adapter** (Order No. 9020). The sensor can now be selected from the list of products. Depending on the radio control system you select, you can now adjust addresses or alarm thresholds to suit your requirements.

SENSOR INSTALLATION

PBS-V60

The BEC lead supplied in the set should either be soldered directly to the high-current connector, or connected to the balancer plug using a suitable adapter. The 60V battery input is protected against reversed polarity.

PBS-T250

The standard set contains two temperature sensors, but additional sensors can be purchased separately. The temperature sensors are designed to be attached to the cylinder head using a screw-lug. Drill a 3.5 mm Ø hole in one of the cooling fins, then fix the temperature sensor in place securely using a suitable self-tapping screw or M4 machine screw. A small quantity of heat-conductive paste under the sensor improves the temperature measurement. Ideally the sensor mounting point should be located away from the propeller airstream, as the flow of air could falsify the cylinder head temperature.

PBS-P16

Cut through the air line (4 mm Festo) in the model at a suitable point, and fit the **PBS-P16** between the cut ends. Ideally the sensor should be installed between the air reservoir and the valves. If you are not using 4 mm air lines, it is possible to replace the Festo connector with a different type, since the hole in the **PBS-P16's** aluminium case features a standard internal M5 thread.

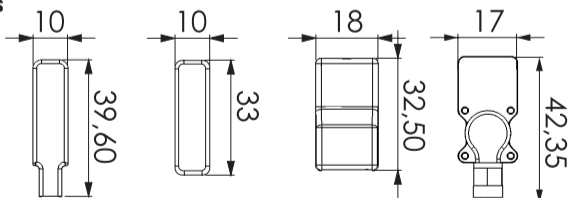
There are a few points to note at the binding stage with Futaba transmitters, as Futaba systems are not capable of displaying all physical units. As an example, the **PBS-P16** appears as a "Temperature sensor". For more details on slot assignment please visit our Support Forum, where they are described in detail.

SETTINGS WITH JETI

All possible settings can be adjusted using the Jeti-Box menu. A typical example is metric or imperial units for the **PBS-P16** pressure sensor. More details, including slot assignment, are provided in full in our Support Forum.

OVERVIEW	PBS-V60	PBS-Vario	PBS-T250	PBS-P16
Sensortype	Voltage	rotational speed	temperature	pressure
Range	0-60V	±100m/s	25-250°C	0-16 Bar
Resolution	0.1V	0.1 m/s	1°C	0.1 Bar
Dimensions	40x10x4 mm	33x10x4 mm	32x18x10 mm	42x17x12 mm
Weight	6 g	6 g	7g	14 g
Telemetry System	P ² -BUS, Jeti EX, Hott, S.BUS2, JR DMSS, M-Link	P ² -BUS, SRXL 2, Jeti EX, Hott, S.BUS2, M-Link	P ² -BUS, Jeti EX, Hott, S.BUS2, JR DMSS, M-Link	P ² -BUS, Jeti EX, Hott, S.BUS2, M-Link

DIMENSIONS



SERVICE NOTICE

We make every effort to provide a good service to our customers, and have established a Support Forum which covers all queries relating to our products. Please use the Support Forum:

www.forum.powerbox-systems.com

before you telephone us.



GUARANTEE CONDITIONS

That is why we are able to grant a **24 month guarantee** on our **PowerBox PBS sensors** from the initial date of purchase. The guarantee covers proven material faults, which will be corrected by us at no charge to you. The guarantee does not cover damage caused by incorrect usage, e.g. reverse polarity, excessive vibration, excessive voltage, damp, fuel, and short-circuits. The same applies to defects due to severe wear.

LIABILITY EXCLUSION

We are not in a position to ensure that you observe our instructions regarding installation of the **PowerBox PBS sensors**, fulfil the recommended conditions when using the unit, or maintain the entire radio control system competently. For this reason we deny liability for loss, damage or costs which arise due to the use or operation of the **PowerBox PBS sensors**, or which are connected with such use in any way. Regardless of the legal arguments employed, our obligation to pay damages is limited to the invoice total of our products which were involved in the event, insofar as this is deemed legally permissible.

We wish you every success using your new **PowerBox PBS sensors!**

Donauwörth, April 2024