PowerBox-Systems ®

*World Leaders in RC
Power Supply Systems*

PBS-V60   PBS-RPM

PBS-VARIO

PBS-T250   PBS-P16

ble for downloading from our website). Graupner and Multiplex systems also allow the alarm thresholds to be adjusted in this way, whereas setting up is carried out at the transmitter with Jeti and Futaba systems.There are a few special points to note when binding sensors to Futaba systems, because Futaba is unable to display all physical units. For example, the PBS-P16 appears as a "Temperature sensor". More details, including slot assignment, are provided in full in our Support Forum.

	PBS-V60	PBS-RPM	PBS-T250	PBS-P16	PBS-Vario
Sensor type	voltage	rotational speed	temperature	pressure	climb rate/altitude
Measuring range	0-60V	0-12000 U/min	25-250°C	0-16 Bar	-
Resolution	0.1V	1 U/min	1°C	0.1 Bar	0.1 m/s
Dimension	40x10x4 mm	40x10x4 mm	32x18x10 mm	42x17x12 mm	33x10x4 mm
Weight	6g	6g	7g	14g	6g
Telemetry systems	CORE, Jeti, M-Link, Hott Futaba	CORE, Jeti, M-Link, Hott Futaba	CORE, Jeti, M-Link, Futaba	CORE, Jeti, M-Link, Hott Futaba	CORE, Jeti, M-Link, Futaba

PRODUCT DESCRIPTION

The PBS series of sensors from PowerBox-Systems comprises a number of ultra-precise units which have been developed to work with the **PowerBox CORE**. However, they are also suitable for use with other radio control systems. At the development stage of these telemetry sensors we took particular care to keep them as compact and robust as possible. Super-accurate sensors combined with sophisticated filter technology are the key to maximum possible precision!

If required, all the sensors can be configured directly from the CORE transmitter. If you are using a different make of radio control system, then this task can be carried out using the **USB Interface Adapter** or the **BlueCom Adapter**. The alarm settings can be entered either at the sensor or the transmitter, depending on the radio control system.

CONNECTIONS

This applies to all sensors: connect the three-core Uni-lead to the Telemetry input on the receiver.

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-RPM
die Sensorleitung des PBS-RPM wird um eine Hochspannungsleitung der Zündung The sensor lead attached to the PBS-RPM needs to be wound round one of the high-tension leads attached to the ignition unit; the field strength generated by the high voltage is sufficient to supply accurate rotational speed information to the sensitive detector in the PBS-RPM. If your engine has a double ignition unit, the sensor lead must be fitted adjacent to the sparkplug cap. This is because electrical

fields generated by the two outputs may cancel each other out at the ignition unit, preventing the sensor lead detecting the signal.

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 P16's aluminium case features a standard internal M5 thread.

SETTING UP THE TELEMETRY SYSTEM

PowerBox CORE
All PBS sensors are factory-adjusted to suit the CORE telemetry system, i.e. all you have to do is plug them into the receiver's P²BUS socket. If you connect the sensor when the system is operating, you will need to carry out a Rescan. Otherwise the sensor will be detected automatically when you switch the system on, and you can then select it from the Sensor List in the usual way.
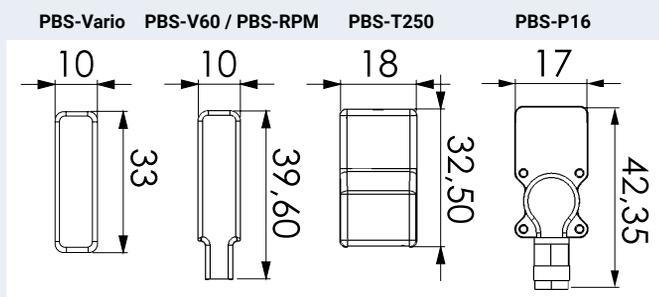
Jeti, Graupner, Multiplex, Futaba
The PBS sensors can be configured to suit your preferred telemetry system using a suitable USB lead (PowerBox or Jeti) and the PowerBox Terminal program (availa-

DIMENSIONS

PBS-Vario	PBS-V60 / PBS-RPM	PBS-T250	PBS-P16

10 — 33

10 — 39,60

18 — 32,50

17 — 42,35

SERVICE NOTE

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 before you contact us by telephone or e-mail:**

www.forum.powerbox-systems.com

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**, fullfil 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**!

Donauwoerth, December 2020