



vSpeedBox

- Revolution Counter
- LED Sensor
- DC - Output
- TTL Output
- Speed Bands
400 RPM
4000 RPM
40000 RPM
- Overload Indicator



Revolution Counter with DC and TTL output.

At many experimental studies and measurements, it is necessary to accurately measure the speed of rotational parts of test objects. Especially for diagrams that are dependent on the rotational speed, like waterfall diagrams or order plots, the speed must be measured in parallel with other physical units.

The vSpeedBox allows to measure speed without any tacho inputs and with a normal DC input. Inside the vSpeedBox, the input pulses coming from the LED-Sensor are used to measure the signal period with high accuracy based on 16 MHz time base. The speed values are calculated and converted to an speed-proportional analog DC output voltage, so they can be recorded by any data acquisition system with a DC input. Parallely the impulse from the LED-Sensor are routed through to the TTL-Output, so data acquisitions having a special tacho input can be used as well.

To guarantee a high accuracy, three speed ranges can be selected:

- 400 RPM
- 4000 RPM
- 40000 RPM

For the selected speed range, the DC output has a resolution of 4000 steps. If the maximum speed is exceeded, the power LED starts blinking.

The vSpeedBox system is build up of two components:

- LED-Sensor Head
- Controller



For the detection of the speed pulses we additionally offer customized optical sensors for special test setups.



Technical Data:

Sensor	M16 x 1,5 with angle holder
Measurement principle	LED red, visible
Measurement distance	Max. 1000mm
Marker	Reflection tape
Sensor size	M16x1,5 length 74 mm
Cable length	2,4 m
Temperature range	-10° to 70° C
Controller size	110 x71x32 mm
Measurement ranges	400 RPM = 4 Volt
	4.000 RPM = 4 Volt
	40.000 RPM = 4 Volt
Resolution	≤ 0,25 ‰
TTL output	Pulses 5 Volt
Power supply	9 Volt DC
Scope of delivery	Sensor, controller and power supply

Information:

For more information or a demonstration, please contact us at the address below.