MINIVLS313 SPEED SENSOR USB TACHOMETER INSTRUCTIONS

GENERAL FEATURES:

The MiniVLS 313 Speed Sensor USB Laser Tachometer is the first pocket laser tachometer developed to operate on the android smartphone (USB-OTG supported) with a data save function for a smartphone, tablet or PC. Primarily designed for speed related applications, including high-speed monitoring and are widely used for research, development and test applications.

KEY FEATURES:

Pocket Sized Instrument:

The size of USB-Tacho is a small and compact handheld tachometer, at just 20mm x 65mm.

Data Save:

All the measured data can be saved to a smartphone, tablet or PC for later use.

Sampling Time-base Option:

From 0.1s to 5s sampling time can be chosen based on measurement requirement.

No Batteries are Required:

The Sensor is powered by the smartphone, tablet or PC, no batteries are required to operate the Sensor

Multiple Units Option:

Different measuring units can be chosen including rps, rpm, meter/minute etc.

Diameter Setting:

The diameter can be adjusted depending on measured wheel for linear speed measurement without the need of a contact adapter.
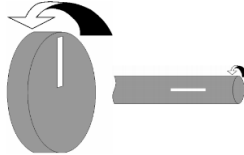
SPECIFICATIONS:

Optical laser range	50mm - 2000mm
Light Source	Red Laser Class II 635nm
Optical angle	± 80 degrees
Speed measurement range	3 - 99,999 rpm
Resolution	0.001 RPM
Operating Temperature	0 to + 50 degree
Baud rate	115200
Connector / Power Source	Mini USB
Time base	0.1s to 5s (adjustable)
Cables	Several options
Dimensions	20mm (W) x 65mm (L)

STANDARD PACKAGE:

pack of reflective tape, male micro to female USB 2.0 adapter, male Type-C to female USB 2.0 adapter, mini male to male USB 2.0, and instructions.

INSTRUCTION FOR USE:

1. Attach small reflective target to machine shaft (typically 6mm x 25mm)
2. connect sensor with smartphone by using supplied cable, start tacho app and press start button, point to measured target.

OPERATION OF APP:

IN MEASUREMENT SETTING, THERE ARE THREE OPTIONS:

For unit display, RPM, RPS, M/MIN, M/SEC, FT/MIN, FT/SEC can be chosen

For sampling time-base option, different time interval can be chosen. For example, if 0.1s selected, the tacho sensor will calculate the speed over around 0.1s, and then send it to smartphone. if 5s selected, the tacho sensor will calculate the speed reading over around 5s, and then send it to smartphone.

For diameter (mm) setting, when unit display is M/MIN, M/SEC, FT/MIN, FT/SEC, then diameter need to be known, the default value is 32 mm, the value can be adjusted according to targeted wheel.

For data file management, you could create a data file to save data. Only following characters are allowed in the name of data file: "0,1,2,3,4,5,6,7,8, 9, abcdefghijkl mnopqrstuvwxyz,-,@,_,#,$,%,(,)"

 If no data file exits, the data file will be automatically created when data need to be saved. The name of automatically created file will be the time when it is created.

You also could choose which existing file want to save through select file button, you could delete data file through delete button, and you could email your data file through third party software.

All the data files are saved in Tacho_data folder.

 All the data saved will in unit of RPM.

USE WITHOUT REFLECTIVE TAPE:

Under controlled conditions reflective tape may not be required. If there is an existing difference in reflectivity on part of the object to be monitored then this may be used e.g. keyways and slots in bright shafts, spokes of a wheel, fan blades etc. If there is more than one target per revolution of the shaft then the resulting reading must be divided by the number of targets to obtain the correct reading. In the case of multiple targets these must be equally spaced around the shaft or disc or jitter will occur in the measured value, this effect is most apparent at slow speeds. On bright shafts, it is possible to paint a black non-reflective segment and conversely on non-reflective shafts a white mark can be painted.

DOWNLOAD FREE ANDROID APP:

App name in Google play store: **Compact instruments tachometer**
https://play.google.com/store/apps/details?id=com.compact.zhong.myapplication