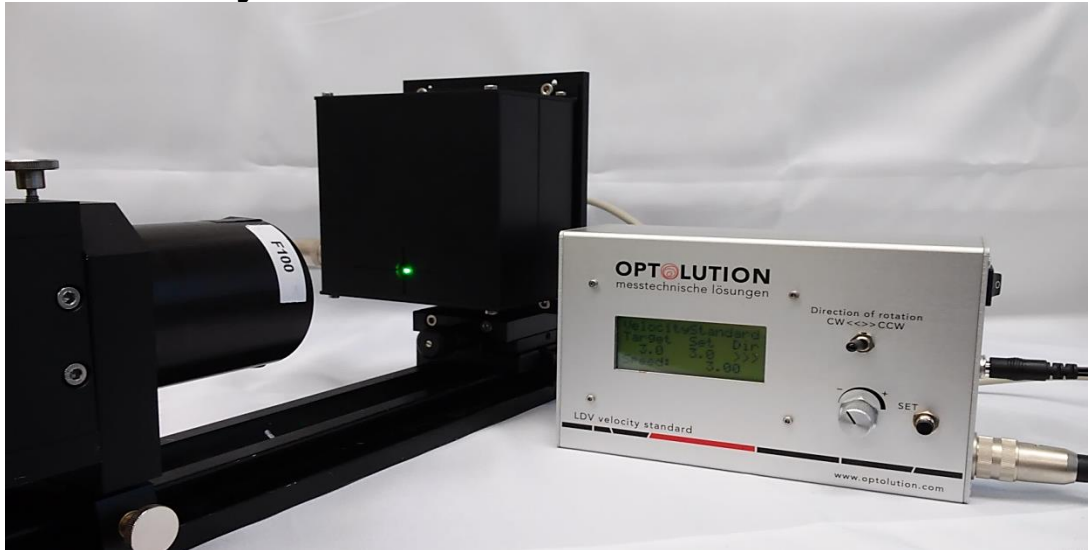


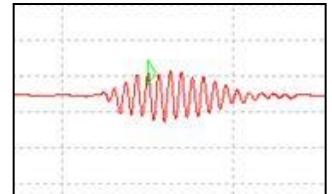
LDV velocity standard for on-site tests



LDV probe with motor- and control module

Benefits:

- Precondition of velocities from 0.5 to 10 m/s with an accuracy of $u < \pm 0.5 \%$
- Speed-controlled DC motor with encoder
- Small, compact and easy to transport
- Generation of very low-noise LDV signals
- No PC connection or additional software are necessary.



The autonomous useable device serves to the precondition of defined velocities for tests and calibrations of Laser-Doppler-Velozimeters (LDV) on-site. The standard is very compact, fits in every measuring equipment and can use directly at the place of the measurement.

A speed-controlled DC motor drives a small cylinder on which circumferential surface the LDV measuring volume will positioned. So the stability of the revolution is independent from the frequency of the 230 V supply voltage. Very low-noise LDV signals are produced from natural soilings for well defined velocities. These signals can be used for test and/or calibrate the whole LDV system under operating conditions on-site.

For the exact positioning of the LDV measuring volume on the circumferential surface three miniature sliding tables are integrated. The velocities are adjusted with a resolution of 0.1 m/s with the help of a regulator and a set button. The required and the actual velocities are displayed on the display of the control module.



Technical Data

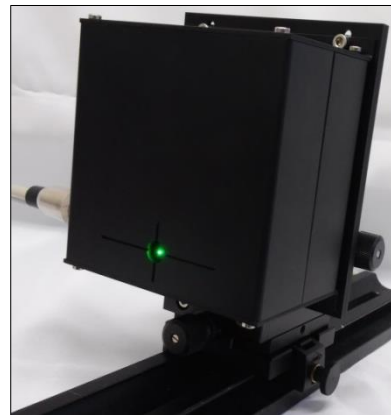
Control Module:

- 8 bit microcontroller
- Power supply: 230 V AC
- Setting the velocity via the regulator and the set button between 0.1 up to 10 m/s
- LCD-Display with three lines and required and actual velocity in m/s
- Accuracy of the velocity: from 0.5 m/s smaller than $\pm 0.5\%$ of m.v.
- Maximal uncertainty of the display: ± 0.01 m/s
- Dimensions: (L) 160 mm, (H) 65 mm, (B) 100 mm
- Weight: 0.8 kg



Motor Module:

- Controlled DC motor with encoder
- x-, y- and z-axes are adjustable with fine screw threads (scale division $5\ \mu\text{m}$)
- Fixing for OWIS system Sys65
- Choose between compact design (height for fp50 only) or the normal version (height adjustable)
- Power supply: 24 V DC via control module
- Dimensions normal version: (L) 210 mm, (H) 145 mm, (B) 110 mm
- Dimensions compact version: (L) 125 mm, (H) 175 mm, (B) 105 mm
- Weight: 1.8 kg.
- Packaging from control and motor module in a robust transport case



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