

Lidar Wind Profiler

Streamline VS+



- Compact pulsed Doppler Lidar for autonomous, turn-key operation
- Optimized in size, weight and power consumption
- Backscatter, line-of-sight velocity, wind profiles, turbulence and cloud profiling
- De-polarization option
- 2-axis programmable scanner with open conical field of $\pm 20^\circ$
- VAD scans, staring and arbitrary PPI scans within the cone
- Real-time data acquisition to 12 km
- Raw and processed data storage
- Receiver bandwidth ± 19 m/s
- Line-of-sight velocity precision < 20 cm/s for SNR > -17 dB
- Optional METEK power supply including LTE modem and overvoltage protection for power line and Ethernet link
- Easy integration in stand alone trailer

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Laser wavelength	1.5 µm, laser class 1M (eye-safe)
Pulse length	typ. 330 ns
Range of measuring heights	80 ... 2000 m (typ. boundary layer height)
Number of measuring heights	up to 1000 (in overlapping mode)
Availability	≥ 80 % @ 1000 m (typically experienced for good visibility and aerosol conditions)
Rays	arbitrarily defined by customer within ± 19 ° tilt angle cone
Range of radial wind speed	± 19 m/s
Range of horizontal wind speed	0 ... ≥ 50 m/s (@ tilt angle of < ± 19 °)
Range of wind direction	0 ... 360 °
Accuracy of wind speed	≤ 0.2 m/s or 2 %
Accuracy of wind direction	≤ 2 ° at wind speeds ≥ 5 m/s
Range resolution	≥ 18 m
Lowest measuring height	70 ... 80 m
Dwell time per beam	1 s
Averaging time of derived wind profiles	adjustable, typically 1 .. 30 minutes
Interfaces for data output and control	2 x RJ45 Ethernet, 2 x USB, 1 x VGA
Built-in memory	1 TB solid-state hard drive (other types available)
Position and time synchronization	GPS
Levelling	recording of 2-axis inclination sensor
Ambient operation conditions	-20 °C ... 45 °C (active cooling) / 5 ... 100 % RH
Power consumption	24 VDC, 140 W lidar/170 W extra for heating/cooling
Weight	60 kg (approx.)
Enclosure dimensions (L x W x H)	62 cm x 54 cm x 60 cm (approx., without struts)
Windows cleaning	blower unit
Optional power supply	white painted stainless-steel cabinet, extra sun protection shield, lockable front door, 110 ... 230 VAC/ 24 VDC (1 x 20 A, 1 x 10 A), Battery buffer 4.0 Ah @ 24 VDC, all connectors IP 67, overvoltage protection for external 230 VAC and Ethernet LTE-antenna included, LTE Modem DIN rail on request



Optional power supply

Metek GmbH is offering a variety of Doppler LIDAR systems for rental services and short term demonstrations.

In 08/2023 LUMIBIRD S.A. and Metek GmbH signed a comprehensive cooperation agreement regarding distribution, after sales service, maintenance and repair by Metek GmbH for 15 European countries. Pls. see our website www.metek.de or contact us by phone for more information about our products and services.

Metek GmbH reserves the rights to modify the specifications without prior notice.