

Lidar Wind Profiler

Streamline BEAM 6X



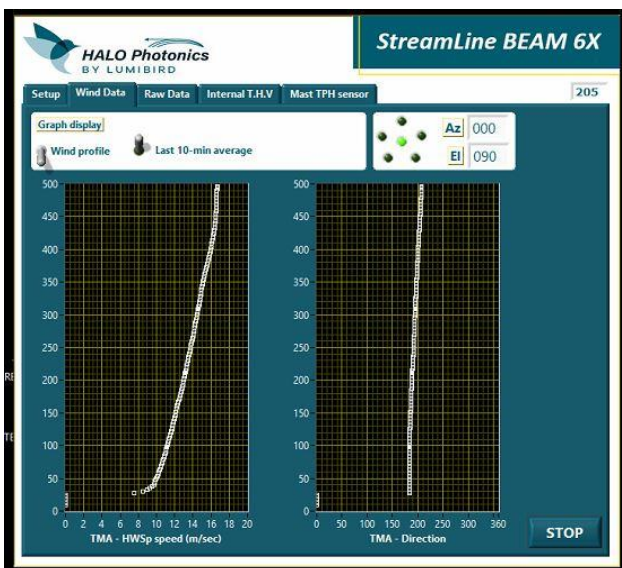
- Superior performing Doppler lidar for wind resource measurements
- Powerful pulsed laser with 6 fixed beams (5 tilted and 1 vertical)
- Measuring range from 40 m up to 500 m
- 190 height ranges, overlapping range gating with 2.6 m increments
- High data availability even for upper height ranges (typ. $\geq 85\%$ @ 350 m)
- Easy and fast transportation and installation
- Output of raw line-of-sight data (radial velocity and SNR)
- Online calculation of 10 minutes averaged wind profiles
- Comprehensive Built-In system status monitoring
- Applications include wind siting, wind farm planning, power curve verification and all meteorological installations

Lidar Wind Profiler **Streamline BEAM 6X**

The Streamline Beam 6X was developed on the expertise of Lumibird's widely used AllSky scanning lidars of type Streamline but uses 5 fixed tilted beams @ 60 ° elevation and one vertical beam to derive online vertical wind profiles of adjustable averaging intervals. The unique range overlapping provides profiling with a vertical spacing as fine as 2.6 m and allows to select the exact measuring heights of interest.

The Streamline Beam 6X offers compact design and low weight assuring a safe and easy handling and reducing all installation efforts. The measuring height of max. 500 m agl is an adequate response to the ongoing increase of the wind turbines hub heights and warrants a long term useability in wind energy applications.

Laser wavelength	1.5 µm, laser class 1M (eye-safe)
Pulse length	typ. 150 ns
Range of measuring heights	40 ... 500 m
Number of measuring heights	190 at 2.6 m increments
Availability	≥ 80 % @ 350 m (typically experienced)
Rays	5 tilted beams at 60 ° elevation, 1 vertical beam
Range of radial wind speed	± 19 m/s
Range of horizontal wind speed	0.2 ... 38 m/s
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
Dwell time per beam	1 s
Averaging time of wind profiles	adjustable, typically 1 .. 30 minutes
Interfaces for data output and control	RJ45 Ethernet x2, USB x2, SVGA
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.)
Windows cleaning	blower unit



Online derived wind profiles (600 s), current beam is vertical

METEK GmbH, Fritz-Strassmann-Str. 4, 25337 Elmshorn, Germany
Phone: +49 4121 4359 0, Fax: +49 4121 4359 20
E-mail: info@metek.de, Internet: www.metek.de

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.

