

# LB-S Series Scanning Lidar



## LB-S Series Scanning Lidar System

Many applications in atmospheric research, pollution monitoring and at airports require fast 2D or 3D profiling of the atmosphere.

The LB-S scanning Lidar system provides full hemispherical 3D automated scanning of the atmosphere and is fully eye-safe to IEC 60825-1 at UV wavelengths whilst maintaining up to 30 mJ per laser pulse. Combined with a 200 mm telescope, this ensures superior signal quality and effective measurement range. Thanks to the high power laser and large telescope, true Raman detection is available as an option.

The optical system is mounted on a Kipp & Zonen 2-axis positioner, controlled by the Lidar software to provide high accuracy full 3D atmospheric profiling, which can be overlaid on site maps.

## Specifications

Measurement range	0.1 to 15 km
Temporal resolution	Down to 12 s
Spatial resolution	Down to 3.75 m
Laser source Q-Switched Nd:YAG	355 nm, 532 nm, 1064 nm
Energy per pulse	30 mJ
Repetition rate	10 to 20 Hz
Pointing accuracy	Better than 0.1 °
Telescope diameter, Cassegrainian	200 mm
Eye-safety option	Optional for 355 nm up to 30 mJ

## Lidar Services & Consumables

### Part number

#### Installation and Training

We offer a comprehensive on-site installation and training program for all Lidar systems, for up to three people  
The price includes our travel expenses and accommodation costs

Fixed Fee - Inside Europe **LDR-INST-EUR**

Fixed Fee - Outside Europe **LDR-INST-GLOB**

#### Extended Warranty

An **Extended Warranty Program** is available **On request**

#### Maintenance Contract

A **Maintenance Contract** is available **On request**

#### Consumables Kit

**Lidar Consumable Kit** for 1 year typical operation **LDR-CONS-KIT**  
Containing: 4 Flash Lamps, 1 Laser De-ionizing Cartridge, 1 Cooling System Filter

## Distribution

Lidar Systems designed and produced by **Raymetrics** of Greece are distributed exclusively by Kipp & Zonen worldwide (with the exception of Greece and Cyprus)

## Article

## Part number

### LB-S Series

Complete turn-key backscatter **Light Detection and Ranging** Systems

Modular design in a single enclosure supplied complete with on-board PC and screen and specially developed software for easy set-up and configuration, data storage, processing and visualisation

LB-S Series are full 3D hemispherical scanning with eye-safe versions.

Detailed specifications of system configurations can be found in the Lidar brochure

## Part number Code LB-S-XY-W-200

LB-S = Lidar Series

X = number of transmitted wavelengths

Y = number of depolarisation channels

W = transmitted wavelengths U (355 nm), V (532 nm), I (1064 nm)

#### Example LB-S Systems

**Eye safe Scanning Lidar**, elastic detection at 355 nm **LB-S-10-U-200**

**Eye safe Scanning Lidar**, elastic detection at 355 nm  
+ depolarisation channel at 355 nm **LB-S-11-U-200**

#### Eye Safety

**Beam Expansion** where eye-safety is a critical issue **On request**

This is dependant upon the transmitted wavelengths and power

#### Temperature

**Climate Control**, extends operating temperature range **On request**

*Note: The above are examples of typical LB-S Series Lidar Systems*

*Please contact Kipp & Zonen for the most suitable configuration and the applicable price*

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