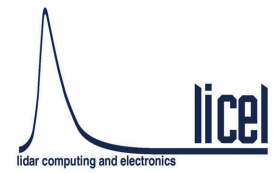
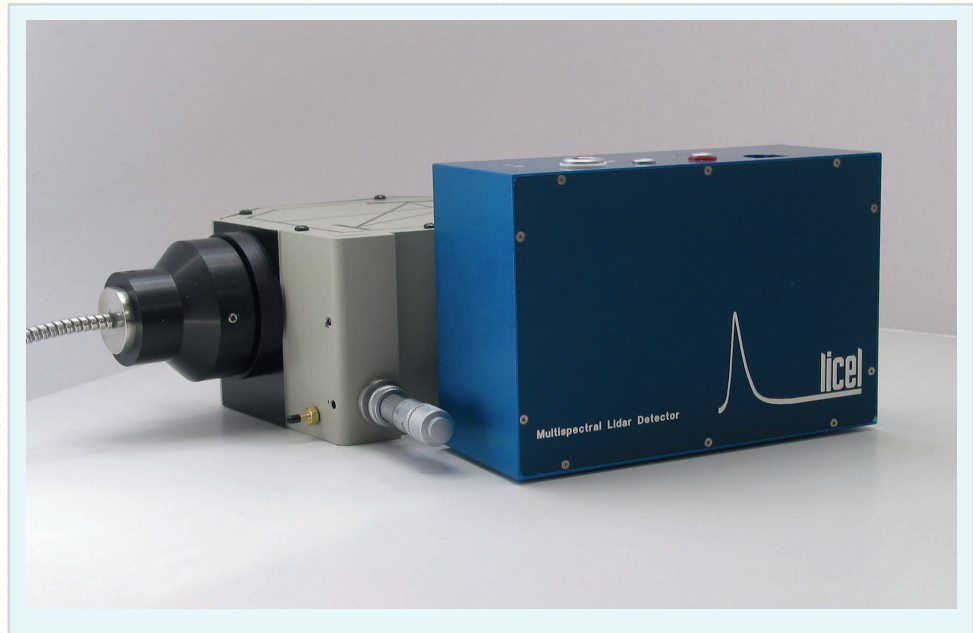


Multispectral Lidar Detector



32-channel simultaneous photon counting acquisition



Applications:

Range resolved spectral data for

- Raman Lidar
- Fluorescence Lidar
- Temperature Lidar

System Overview:

The Licel multispectral lidar detector allows simultaneous detection of multiple spectrometer wavelengths. It is based on a multianode, metal-channel-dynode photomultiplier. 32 photocathode elements together with 32 single photon counting systems provide 2-dimensional, spectral and range resolved data.

Features:

- Multi -Anode PMT detector
- 32 channel single photon counting system
- 100 MHz max. count rate
- on board averaging
- integrated HV supply

The high voltage supply, an adjustable discriminator and the trigger logic is integrated on the module. The Ethernet interface is used together with LabView software to control the measurement and readout the acquired data. The Licel Multispectral Lidar Detector can be used with various flat field spectrographs.

Specifications

Detector:

Spectral sensitivity:

Bialkali: 300-600nm -K

Bialkali: 300-880nm, -01

Multialkali 185-650nm, -03

Multialkali: 185-880nm, -04

Multialkali: 300-920nm, -20

detector geometry

total detector area: 31.8 x 7mm

single cathode area: 0.8 x 7mm (32 channels)

inactive area

between cathodes: 0.2 x 7mm

Anode uniformity: 1:1.5 typ., 1:2 max. (-K, -01)

1:1.7 typ., 1:2.5max. (03,04,20)

Cross-talk: 3% to neighbouring channel

0.6% to channel n+2

0.2% to channel n+3

0.1% to channel n+4

Spectral data:

with Oriel spectrometer MS125

and 1200 grooves/mm grating

spectral range: 317 -484 nm

spectral resolution: 6.2 nm/channel

optical interface: quartz/quartz fiber bundle

1.15mm dia., n.a.=0.22

Power and dimensions:

Power supply : +5V/2A, -5V/1A,

+15V/0.5A

(Compatible to Licel transient recorder supply).

Separate power supply available.

Trigger input: +2.5V into 50 Ohm

Interface: Ethernet

Connectors:

Power supply: Lemo 1B304

Trigger input: Lemo Camac

Ethernet: RJ45

Dimensions

Electronics: 150 x 100 x 60mm

Spectrometer Oriel 160 x 200 x 60 mm

Separate power supply: 91 x 128 x 220 mm

Environmental conditions:

Operating temperature: 0°C to 30°C (non

condensing)

Single photon counting system

Max. photon count rate: 100 MHz

Bin width: 50 ns

No. of range bins: 1024

No. of shots to average: 1 - 4096

Max. acquisition rate: 30 Hz

HV supply: 0..-900 V

max. total average anode current: 100µA (30 seconds)

max. average anode current per channel: 6 µA (30 seconds)

International distribution:

USA:

Boston Electronics Corp.
91 Boylson Street
Brookline MA 02445

phone (800)347-5445

fax (617)731-0935

e-mail: boselec@world.std.com

www.boselec.com

Asian Pacific Rim:

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3-fl., Onoda Building,
4-26-19, Koenzi-Minami-Ku
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phone 03-3314-5699

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