## **COMPACT SPECTROMETER**

## COMPACTLINE



**COMPACT SPECTROMETERS** 

To be suitable for everyone, we offer three variations to match your application's needs.

#### 1. Compact Spectrometer

Available with 2048 or 4096 pixel detector, and USB-powered with strengthened pigtail

#### 2. Compact Spectrometer Link

Allows you to use a different communication protocol (RS232 or SPI) for smooth integration

#### 3. Compact Spectrometer Bench Only

The Bench Only let's you combine our optical engine with your own electronics

Meet the Compact spectrometer, a lightweight device optimized for the best performance in system integration. This device is compatible with Avantes light sources, accessories, and AvaSoft software.

# POWERFUL. VERSATILE. COMPACT.

### WHY CHOOSE COMPACT?

- Small size
- Improved optical bench design
- Smooth product or system integration
- Produced with AvaMation for unsurpassed inter-instrument reproducibility & scalability
- Superior stray light performance
- High signal-to-noise ratio
- USB-powered with pigtail
- Multiple variations available

#### **APPLICATIONS & INDUSTRIES**

The Compact spectrometers are suitable for a wide range of applications and industries, including;



**Agriculture & Food** Food Sorting Precision Agriculture



**Semiconductor** Thin Film Coating End-Point Detection



**Environmental** Contamination & Pollution Monitoring



**(Bio)Medical** Blood Analysis Cancer Detection



System Integration Integrate into your product or system

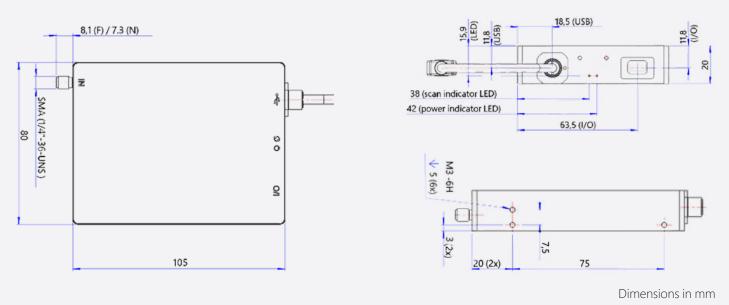


## SPECIFICATIONS COMPACT SPECTROMETER

The information on this page relates to the USB-powered Compact spectrometer.

|                                 | Compact Spectrometer 2K  | Compact Spectrometer 4K                              |
|---------------------------------|--|--|
| Optical Bench                   | Symmetrical Czerny-Turner design, 75 mm focal length; spectrometer bench |  |
| Wavelength range                | 190 - 1100 nm  |  |
| Stray light                     | 0.1 - 1% (typical value 300l/mm, blaze 300 nm < 0.3%)                    |  |
| Detector                        | HAM S11639, CMOS linear array, 2048 pixels (14x200 µm)                   | HAM S13496, CMOS linear array, 4096 pixels (7x200µm) |
| Signal/Noise                    | 375:1  | 365:1  |
| Dynamic Range                   | 4500   |  |
| Dark noise                      | 15 cnts  |  |
| AD converter                    | 16-bit, 6 MHz  |  |
| Integration time                | 9 µs – 30 s  |  |
| Interface                       | USB 2.0 (480Mbps) / pigtailed (38cm) USB-A                               |  |
| Sample speed on-board averaging | 0.36 ms/scan   | 0.70 ms/scan   |
| Data transfer speed             | 0.79 ms/scan   | 1.12 ms/scan   |
| Digital I/O                     | 5 bidirectional programmable I/O; 1 Analog out, 1 Analog in, 1x5V        |  |
| Dimensions, weight              | 105 x 80 x 20 mm, 277,5 grams  |  |
| Power supply                    | Default USB power, 500 mA  |  |
| Temperature range               | 5-55 °C  |  |

### DIMENSIONS



Discover all our empowering spectroscopy solutions on our website www.avantes.com



#### **FULL PRODUCT OVERVIEW & SPECIFICATIONS**

Scan the QR-code for the full product overview, gratings, ordering options, and more. Discover the flexibility of the Compact spectrometer and find your ideal variation.

We reserve the right to make changes without prior notice. While every effort has been made to ensure all information in this document is accurate, Avantes accepts no liability for any inaccuracies.



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