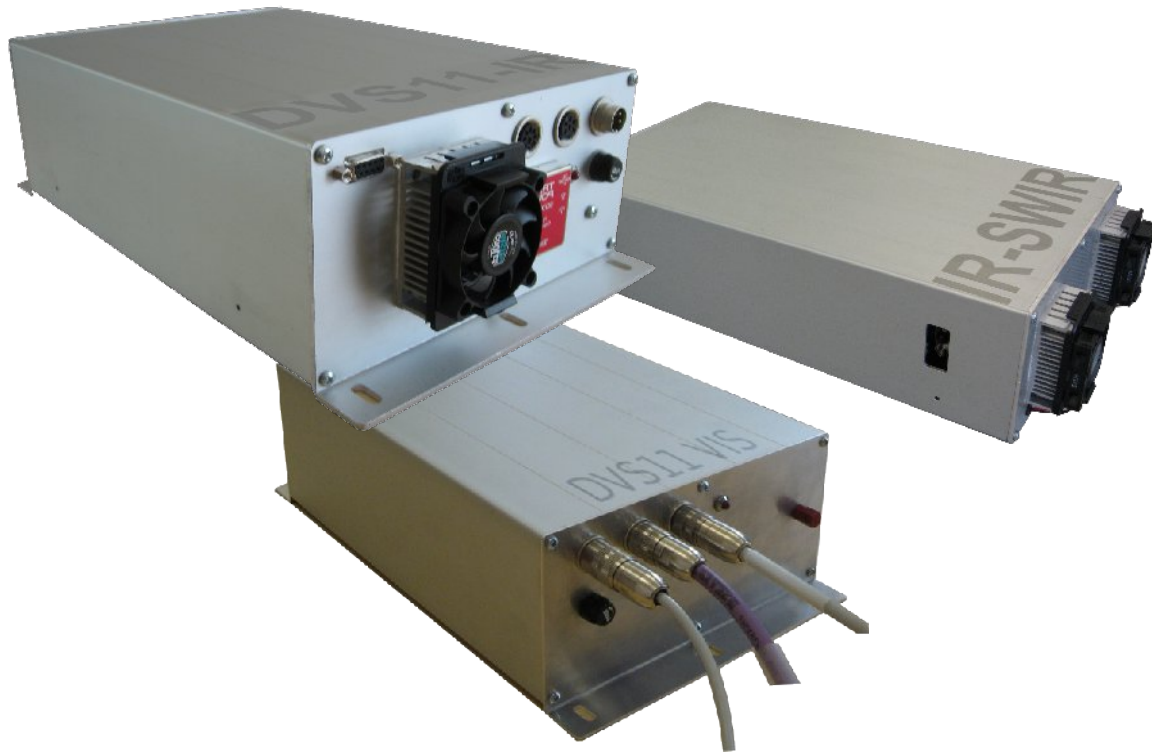




DVS11

compact spectrometer



DVS11 is a compact, general-purpose, spectrometer designed and manufactured by DV. Suitable for absorbance, transmittance, reflectance and emission measurements, it is available in different configurations for laboratory or industrial environment use.

APPLICATIONS



Colour analysis
and processing



Food analysis



Biology
Medical

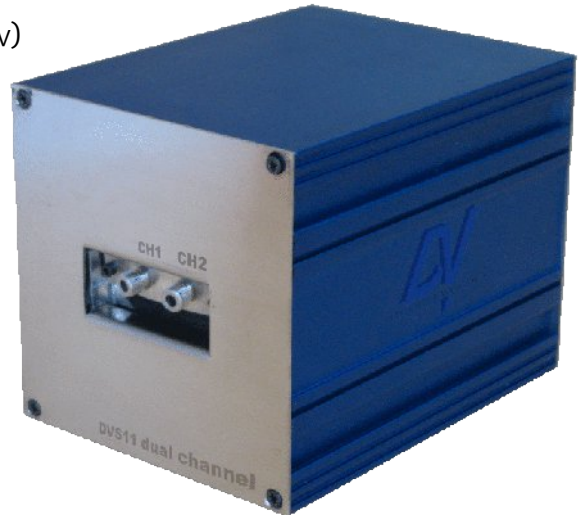


Agriculture
Precision farming

DVS11VIS OEM dual channel [380-730nm]

Characteristics:

- Numerical resolution :1.3 nm/pixel
- Sensitivity: $\leq 37 \text{ mlux} \cdot \text{sec}$ @ Full scale ($[56 \mu\text{lux} \cdot \text{sec}] / \text{liv}$)
- Spectral resolution $\leq 10 \text{ nm}$
- Low Dark Current
- Active pixels 512 (256 each channel)
- A/D conversion 16bit
- Integration time 15ms-180s
- Communication port USB
- Power supply 12V DC
- Fiber optic input 2 x SMA



DVS11 IR OEM [1000-1700nm]

Optical characteristics:

- Design based on concave holographic grating (flat field) with single beam input
- Aperture f/2
- Stray Light 0.01%
- Dispersion 2.7 nm/pixel
- Optical resolution 3.2 nm FWHM
- Spectral Range 1000-1700 nm
- SMA905 input assembly with 50um input slit

Detector

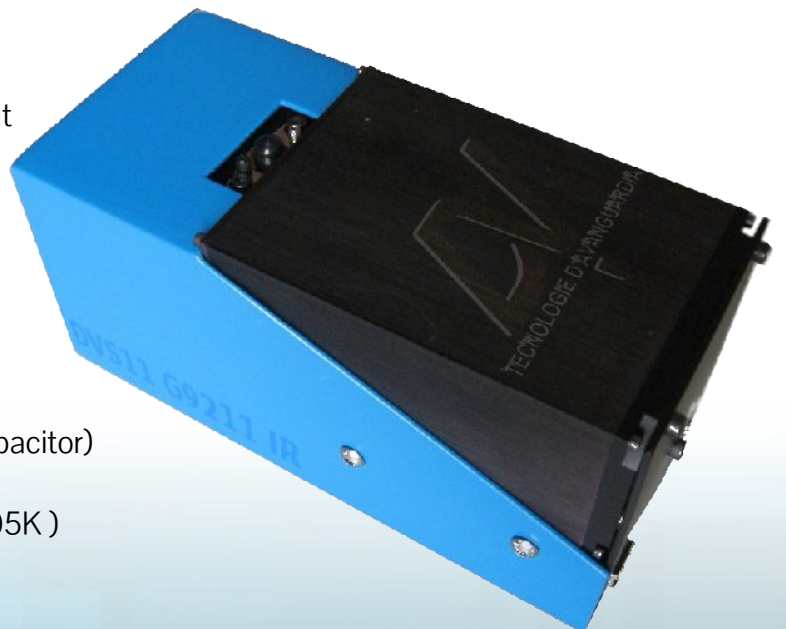
- InGaAs detector array 256 pixels
- pixel pitch 50x500um
- 1 stage TEC cooling

Acquisition system

- 16 bit A/D conversion electronic
- Integration time from 0.1ms up to 5 mins.
- Selectable hi/low sensor gain (integrating capacitor)
- Selectable Internal Averaging System
- High precision (sensor temp. variation $< 0.005\text{K}$)
externally connected cooling system
- USB / RS232 interface
- 12Vdc Power supply

Optional Accessories

- External I/O board (4+2 opto-isolated Inputs, 4 realy outputs, 2A/ph microstepping driver)



DVS11UV-VIS-NIR OEM High efficiency single channel [300-1100nm]

Characteristics:

- Spectral range 300-1100 nm
- Numerical dispersion :3.5 nm/pixel
- Zeiss MMS-1 based dispersion grating
- Cross Section Converter for enhanced efficiency
- Spectral resolution ≤ 5 nm
- Low Dark Current Drift
- Active pixels 256
- A/D conversion 16bit
- Integration time 25ms-180s
- Communication port USB
- Power supply 12V DC
- Fiber optic input 2 x SMA



DVS11 G9211 IR-EXT

Optical characteristics:

- Design based on concave holographic grating (flat field) with single beam input
- Aperture f/2
- Stray Light 0.05%
- Dispersion 3.5 nm/pixel
- Optical resolution 6.5 nm FWHM
- Spectral Range 1600-2500 nm
- SMA905 input assembly with 50um input slit

Detector

- EXT-InGaAs detector array 256 pixels
- pixel pitch 50x500um
- 2 stages TEC cooling

Acquisition system

- 16 bit A/D conversion electronic
- Integration time from 0.1ms up to 5 mins.
- Selectable hi/low sensor gain (integrating capacitor)
- Selectable Internal Averaging System
- High precision (sensor temp. variation < 0.005K) externally connected cooling system
- USB / RS232 interface
- 12Vdc Power supply

Optional Accessories

- External I/O board (4+2 opto-isolated Inputs, 4 relay outputs, 2A/ph microstepping driver)



DVS11 CASED VERSIONS



One or more DVS11 spectrometer can be boxed together in a rugged shell to cover a large spectral range and to be installed in harsh environment. Following standard models are available:

DVS11 WideRange (300-2500nm).

DVS11-IR-2CH (1000-1700nm with two input channel)

DVS11-COLOR (400-700nm with I/O for process control)

OPTIONAL BOARD

DVSTPEXP10 stepper motor driver

Features

Optional multi-purpose board for in-line installation of the DVS11 spectrometer.

Stepper motor driver ,bipolar configuration 6 or 5+1 wires 1.5A/ph.

4 digital IN 4 Relay OUT + 2 extra course input



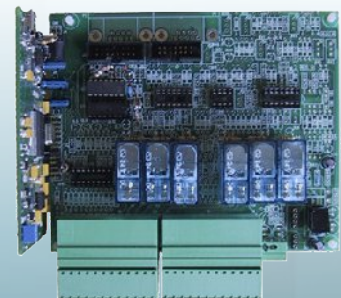
EXP01 I/O expansion board

Optional multi-purpose board for in-line installation of the DVS11 spectrometer.

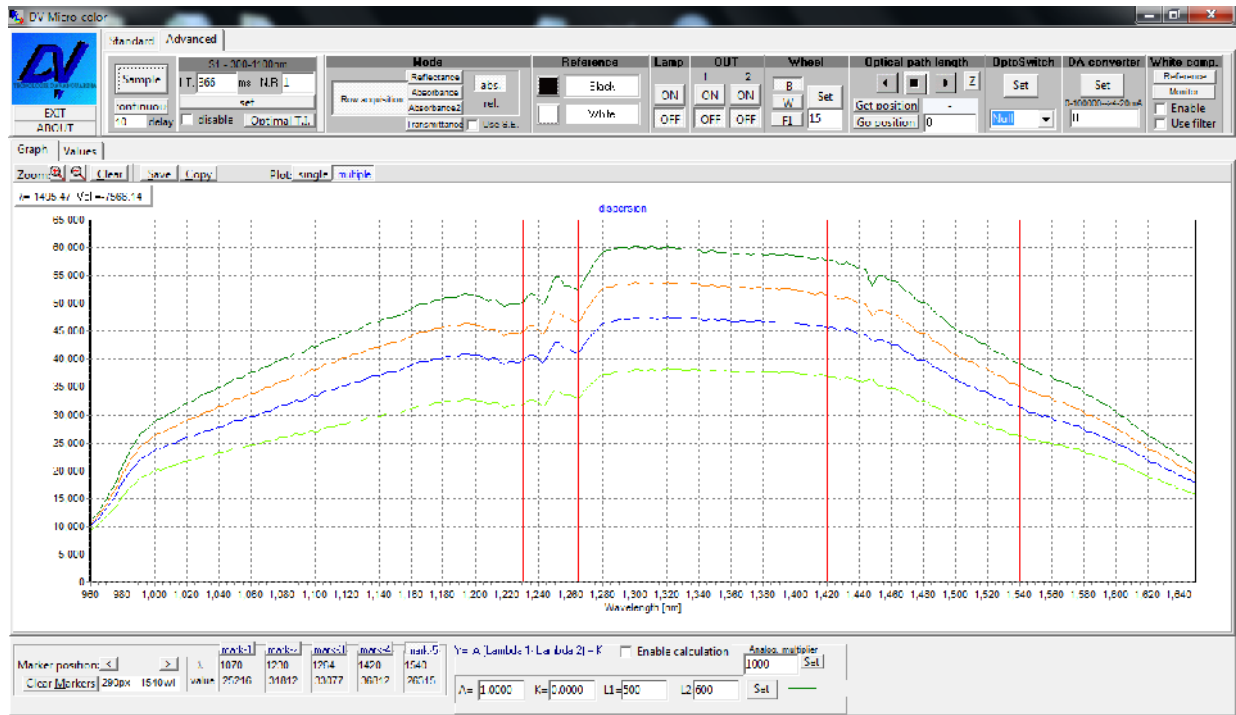
Features

I/O : up to 4 analog inputs, up to 6 digital outputs, 5 relays outputs

Encoder input w/ zero-marker



MICROCOLOR



Microcolor is a software designed and developed by DV for single point spectrophotometers. The spectral data can be acquired in the various spectral ranges, depending on the specific application and on the spectrophotometric system in use. The software performs either the calculation of the reflectance, transmittance and absorbance, and the extraction of color coordinates.

Features

- Multi-spectrometer and multi channel management
- Reflectance, Transmittance and Absorbance calculation
- Colour coordinates according $L^*a^*b^*$ and Yxy under 2° and 10° viewer conditions
- Colour differences calculation
- Data plot
- Data export
- DVSTPEXP10 control
- EXP01 I/O control