

ORANGE EYE

VNIR Hyperspectral Imaging Camera (580 – 1000 nm)

The **OrangeEye** is a linescan (pushbroom) visible and near-infrared hyperspectral imaging camera that allows the acquisition of real-time spectral data with very high spatial resolution. In addition to chemical information, i.e. material characteristics, precise color information is obtained as well.

Combining superior optical design with advanced holographic transmission grating technology, high-end electronics and a sensitive CMOS detector, the **OrangeEye** camera's outstanding performance makes it an ideal tool even for the most demanding laboratory or process analytical applications.

A variety of dedicated accessories for the **OrangeEye** ensures seamless integration in any individual application scenario. Depending on the measured object dimensions, various camera lenses (fore optics) can be chosen for optimal image quality. Specialized modular tungsten halogen or LED lighting provide homogeneous sample illumination.

The conveyor belt or stepper table for lab measurements, tripod with rotation stage for field applications or different mounting accessories for industrial installations ensure easy setup and optimal sample presentation. Dedicated software packages are available for various user requirements.



Features:

- **Transmission grating configuration for superior sensitivity**
- **High spatial and spectral resolution**
- **Excellent imaging performance**
- **Robust design without moving parts**
- **Compact design**

Technical Specifications:

OrangeEye

Spectrograph

Spectral range	typ. 580 to 1000 nm
Dispersion	62 nm/mm
Spectral resolution	10 nm (with 80 µm slit)
Spatial resolution	rms spot radius < 35 µm
Smile	< 90 µm
Keystone	< 30 µm
F-number	2.8
Slit width, default	80 µm (others on request)

Electronics

Sensor	CMOS enhanced in VNIR range
Pixels in full frame	1312 x 1082
Pixel size	8 µm x 8 µm
Bit depth	12 bit
Frame rate	up to 54 fps full resolution (8 bit)
Data interface	Gigabit Ethernet

Power consumption	< 4.8 W
Power supply	12 V DC

Operating Conditions

Temperature (operating)	0 °C to + 50 °C
Temperature (storage)	-10 °C to + 50 °C

Mechanics

Dimensions l x w x h	236 mm x 50 mm x 46 mm
Weight	2 kg
Lens mount	Standard C-mount

Please note that any specs on the data sheet are subject to change without notice.

Optionally, the **OrangeEye** is available with integrated scanning unit that allows to perform the measurements on static samples without moving camera itself.

As a well-established manufacturer of spectroscopic measurement equipment, **inno-spec** provides optimized solutions for any individual applications: from customized OEM components for system suppliers up to fully integrated turnkey solutions for the end-user.

Accessories:

- Modular tungsten halogen or LED lighting
- Different fore optics: 8 mm, 12.5 mm, 16 mm, 25 mm, 35 mm, 50 mm
- Conveyor belt, stepper table or tripod with a rotary stage
- Various mounting accessories
- Portable battery system
- Multiple software packages can be provided