

# REDEYE 2.2

## NIR Hyperspectral Imaging Camera

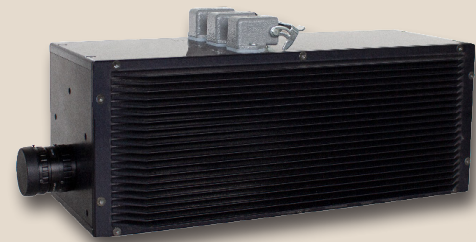
Introducing the **RedEye 2.2**, our advanced hyperspectral camera designed to deliver real-time data with useful spectral and spatial resolution for a broad range of customer scenarios.

Developed through a decade of experience in delivering industrial applications, the **RedEye** camera family incorporates sophisticated optical design, advanced transmission grating technology, and a fast NIR detector, making it suitable for use in even the most demanding applications.

Our innovative approach to material characterization provides comprehensive analytical data for laboratory or manufacturing processes, combining chemical and spatial information at the same time.

### Application areas:

- Recycling industry
- Moisture content determination
- Food and harvest products
- Mining



### Features:

- Large pixel size for low-signal detection
- ROI (selectable region of interest)
- Gigabit Ethernet standard interface
- Robust design



Website



LinkedIn



## Technical Specifications:

### RedEye 2.2

#### Spectrograph

|                     |                                     |
|---------------------|-------------------------------------|
| Spectral range      | typ. 1200 to 2200 nm                |
| Dispersion          | 4.3 nm/px                           |
| Spectral resolution | 13 nm (with 80 µm slit)             |
| Spatial resolution  | rms spot radius < 85 µm             |
| Smile               | < 75 µm                             |
| Keystone            | < 25 µm                             |
| F-number            | 2.6                                 |
| Standard slit width | 80 µm (30, 50 and 100 µm available) |

#### Electronics

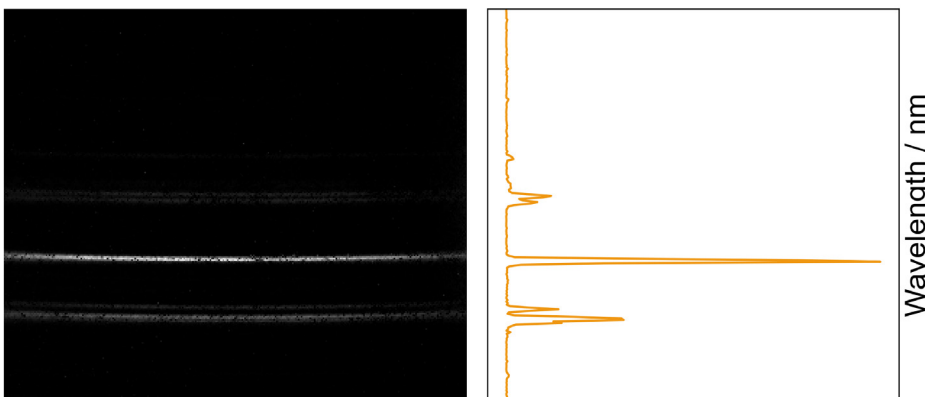
|                      |                                       |
|----------------------|---------------------------------------|
| Sensor               | extended InGaAs                       |
| Pixels in full frame | 320 x 256 (spatial x spectral) pixels |
| Pixel size           | 30 µm x 30 µm                         |
| Bit depth            | 14 bit                                |
| Frame rate           | 330 fps (full frame)                  |
| Data interface       | Gigabit Ethernet                      |
| Camera Control       | RS 485                                |
| Power supply         | 24 V DC                               |
| Cooling              | 2-Stage TEC                           |

#### Operating Conditions

|                         |               |
|-------------------------|---------------|
| Temperature (operating) | -5°C to +40°C |
| Temperature (storage)   | -5°C to +50°C |

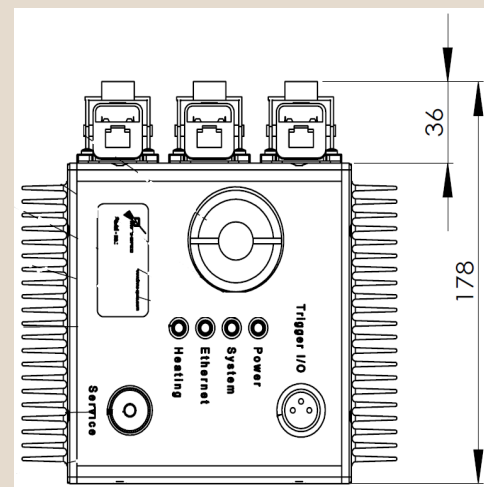
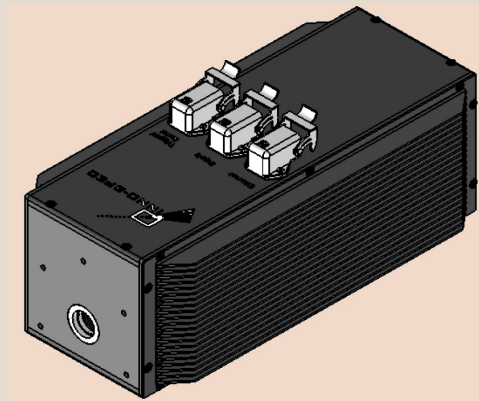
#### Mechanics

|                      |                                 |
|----------------------|---------------------------------|
| Dimensions l x w x h | 400 x 184 x 180 mm <sup>3</sup> |
| Weight               | 10.5 kg                         |
| Lens mount           | standard C-mount                |



As a well-established manufacturer of spectroscopic measurement equipments, **INNO-SPEC** provides optimized solutions for your individual applications; for example, customized OEM cameras for machine builders & system suppliers.

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



## Accessories:

- Conveyor belt, stepper table or tripod with a rotary stage as bundle solutions
- Tungsten halogen light sources in modular sizes
- Different objective lenses: ranging between 8 mm & 50 mm focal length
- Software packages for customized applications