

# EVK HELIOS EQ32

## 0.9-1.7 $\mu$ m hyperspectral imaging system

- Quantified analysis of the data stream
- Real-time hyperspectral imaging system
- 320 pixels spatial resolution in the NIR wavelength band
- High quality optically corrected spectra
- Classified data stream



### Description

The HELIOS EQ32 hyperspectral imaging system is a powerful analysis tool, based on non-contact and non-destructive real time infrared imaging spectroscopy.

The EVK HELIOS system analyzes chemical properties of objects and makes distinction of material types not visible to color cameras. The internal processing engine delivers qualitative and quantitative information of material streams e.g. analyte concentrations or material compositions. The camera is delivered with a full internal calibration as a plug and play component. HELIOS EQ32 comes in a compact, rugged stainless-steel housing with stress decoupled optomechanics.

The system is optimized for real industrial environments and delivers stable calibrated data over the full specified temperature range.

### Customer Benefits:

- Internal camera calibration  
No on-site calibration necessary
- Embedded data analysis - no need for external PC
- Real-time imaging system for in-line operation
- Compact and rugged industrial design for use in harsh environments

### Key Features

- Operates in Near Infrared (NIR) wavelength range from 0.9 - 1.7 $\mu$ m
- Spatial resolution of 320 pixels
- Scan rate at 500Hz
- GigE Vision GenICam interface
- Rugged industrial design. Protection rating IP54
- Temperature Range 0°C - 50°C with full optical stability
- Optical system optimized for analytic applications
- Seamless integration with EVK SQALAR software suite

### Typical Applications

- In-line monitoring and control of production streams
- In-line measurement of material composition
- In-line quantitative analysis of analyte concentrations

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## Technical Data

Spectral range	(929 ± 2 - 1702 ± 2) nm
Line scan rate	446 Hz full frame
Spectral resolution	2.5 nm
Spectral sampling	3.1 nm
Spatial resolution	320 pixels
Pixel size	30 x 30 µm
Optical coupling	C-mount lens
Slit	60 µm
Interfaces	GigE Vision (GV) <sup>1</sup>
Trigger input	RS-485
Dimensions without lens	141 x 174 x 326 mm
Weight	approx. 7.8 kg
Power supply	18 - 36 V DC
Power consumption	max. 24W, typical 8W
Protection rating	IP54
Operating temperature	0 to +50 °C
Storage temperature	-25 to +75 °C
Humidity	8 to 80 %
Data output	1. High quality calibrated spectral data (12bit GigE-Vision) 2. Mono8 classified data "EVK Class32" 3. 3x 8Bit RGB classified data "EVK EC3"/"EVK QCI"

<sup>1</sup> GigE Vision supports configuration & data streaming

## Order Information

Product	Order Number
HELIOS EQ32	AGC-20078

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