

EVK HELIOS NIR G2-320

0.9–1.7 μ m HYPERSPECTRAL IMAGING SYSTEM

- HIGH-SPEED HYPERSPECTRAL IMAGING SYSTEM
- 320 PIXEL SPATIAL RESOLUTION IN NIR WAVELENGTH BAND
- HIGH QUALITY OPTICALLY CORRECTED SPECTRA
- CLASSIFIED DATA STREAM



DESCRIPTION

The EVK HELIOS hyperspectral imaging camera is a powerful classification system based on non-contact and non-destructive hyperspectral imaging technology. It is available in 2 system configurations:

- **CORE:** Delivers high quality, optically corrected spectra for processing with 3rd-Party tools.
- **CLASS:** Delivers a classified data stream for analyzing and monitoring applications in-line and at-line.

The EVK HELIOS system analyzes the invisible chemical properties of objects and makes distinction of material types not visible to the human eye. The internal classification engine delivers qualitative and quantitative information of material streams.

KEY FEATURES

- Operates in Near Infrared (NIR) wavelength range from 0.9 – 1.7 μ m
- Spatial resolution of 312 effective pixels
- 500 Hz full frame acquisition speed at 216 spectral pixels
- GigE Vision interface
- Rugged industrial design according to IP54 class

TYPICAL APPLICATIONS

The EVK HELIOS smart imaging systems offer solutions for a variety of applications in recycling, mining, food processing as well as chemical and pharmaceutical industries. Due to their high-speed characteristics and rugged industrial design, the EVK HELIOS imaging system can be used in research, for at-line or in-line quality inspection as well as in sorting applications

CUSTOMER BENEFITS:

- Optically corrected spectra – no need for complex on-site calibration
- Integrated REAL-TIME classification engine - no need for external PC
- Industry proven thermal management – no tear & wear of mechanical parts
- Rugged industrial design - compact metal case for industrial use in harsh environments

TYPICAL APPLICATIONS:

- Recycling of plastic or paper
- Sorting of minable ore
- Sorting and analyzing of food
- Foreign body detection
- Pharmaceutical research
- In-line tablet inspection

TECHNICAL DATA

SPECTRAL RANGE	930 – 1.700 nm
LINE SCAN RATE	500 Hz full frame ¹⁾
SPECTRAL RESOLUTION	9 nm
SPECTRAL SAMPLING	3.1 nm
SPATIAL RESOLUTION	312 Pixels
PIXEL SIZE	30 x 30 µm
OPTICAL COUPLING	C-mount lens
SLIT	100 µm (80µm optionally)
INTERFACES	GigE Vision, CamLink ²⁾
TRIGGER INPUT	RS-485
DIMENSIONS WITHOUT LENS	220 x 155 x 330 mm
WEIGHT	approx. 9.5 kg
POWER SUPPLY	+24V DC +/-15%
CURRENT CONSUMPTION	max. 4 A, typically 2A
PROTECTION SYSTEM	IP54
OPERATING TEMPERATURE	0 to +40 °C
STORAGE TEMPERATURE	-25 to +75 °C
HUMIDITY	8 to 80 %, non condensing

1) Up to 3 kHz by decreasing the spectral range

2) GigE Vision for HELIOS configuration & data streaming, CamLink optional for data streaming only

HELIOS SYSTEM CONFIGURATIONS

	CORE	CLASS
SIGNAL CONDITIONING	▪	▪
MATERIAL CLASSIFICATION		▪

DATA PROCESSING SOFTWARE

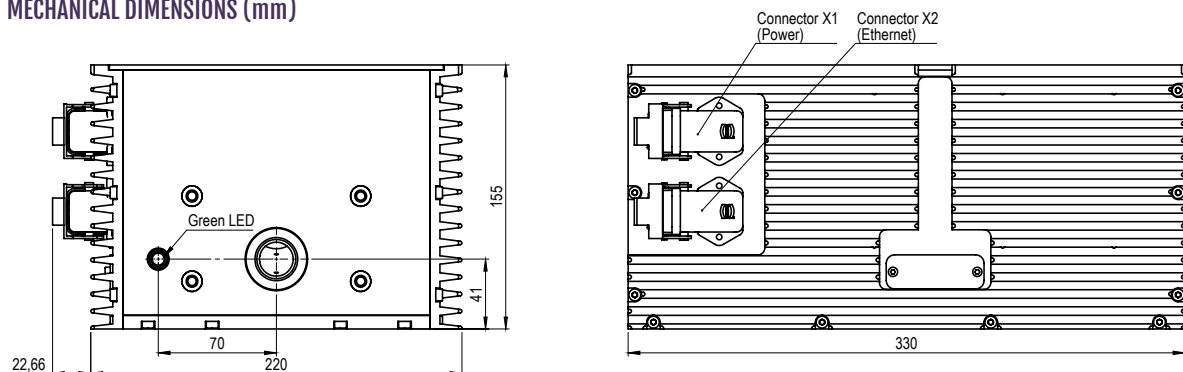
	CORE	CLASS
HELIOS OPTIMIZER Lite	▪	▪
HELIOS OPTIMIZER		▪
EVK SQUALAR		▪

HELIOS OPTIMIZER Standard software can be ordered separately and is not included in the HELIOS NIR package

DATA OUTPUT

	CORE	CLASS
DATA OUTPUT	High quality spectra	4-bit classified data

MECHANICAL DIMENSIONS (mm)



ORDER INFORMATION

PRODUCT	EVK ORDER NUMBER	PRODUCT	EVK ORDER NUMBER
HELIOS NIR G2 Core	AGB-18002	EVK HELIOS NIR G2 Class	AGC-18002
		EVK HELIOS NIR G2 Class Camlink	AGC-18007

EVK DI Kerschhagl GmbH

Josef-Krainer-Straße 35
8074 Raaba, Austria

P +43 316 461 664
F +43 316 461 664-14

office@evk.biz
www.evk.biz