

EVK HELIOS NIR G2-320 0.9-1.7µm hyperspectral imaging system

- Real-time hyperspectral imaging system
- 320 pixels 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 infrared imaging spectroscopy. The HELIOS NIR G2-320 delivers a classified data stream for analyzing and monitoring applications in-line and at-line.

Due to the HELIOS system analyzes chemical properties of objects and makes distinction of material types not visible to color cameras. 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 μm
- Spatial resolution of 320 at
- Scan rate of 500 Hz
- GigE Vision interface
- Rugged industrial design according to IP54 class

Typical Applications

- Recycling of plastic
- Recycling of wood
- Sorting of minable ore
- Sorting and analyzing of food
- Foreign body detection
- Sorting of C&D waste

Customer Benefits:

- Internal camera calibration
 No on-site calibration necessary
- Embedded data classification no need for external PC
- Real-time imaging system for inline operation
- Rugged industrial design for use in harsh environments



Technical Data

Spectral range	(929 ± 2 – 1702 ± 2) nm
Line scan rate	446 Hz full frame¹
Spectral resolution	9 nm
Spectral sampling	3.1 nm
Spatial resolution	320 pixels
Pixel size	30 x 30 μm
Optical coupling	C-mount lens
Slit	100 μm
Interfaces	GigE Vision (GV), CamLink (CL) ²
Trigger input	RS-485
Dimensions without lens	220 x 155 x 330 mm
Weight	approx. 9.5 kg
Power supply	+24V DC ±15%
Power consumption	max. 4A, typically 2A
Protection rating	IP54
Operating temperature	0 to +40 °C
Storage temperature	-25 to +75 °C
Humidity	8 to 80 %
Data output	4-bit classified data
HELIOS system configuration	Signal conditioning, Material classification
Data processing software	EVK SQALAR

¹ See table under frame rate information

Order Information

Product	Order Number
HELIOS NIR G2 320 GigE Vision (GV)	AGC-18002
HELIOS NIR G2 320 CamLink (CL)	AGC-18007

EVK DI Kerschhaggl GmbH

 $^{^{2}}$ GigE Vision supports configuration & data streaming, CamLink (optional) supports classified data streaming only