EVK HELIOS EQ32

0.9-1.7µm HYPERSPECTRAL IMAGING SYSTEM

- REAL-TIME HYPERSPECTRAL IMAGING SYSTEM
- 312 PIXELS SPATIAL RESOLUTION IN NIR WAVELENGTH BAND
- HIGH QUALITY OPTICALLY CORRECTED SPECTRA
- QUANTIFIED ANALYSIS DATA STREAM
- CLASSIFIED DATA STREAM

DESCRIPTION

The EVK 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 µm
- Spatial resolution of 312 effective pixels
- 500 Hz acquisition speed at 220 spectral pixels [1]
- 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 analysis and control of production streams**
- **In-line food analysis**
- **In-line measurement of material composition**
- **In-line measurement of analyte concentrations**
- **In-line tablet inspection**

TYPCIAL APPLICATIONS

The EVK HELIOS EQ32 can be used for process analysis and process control applications in food, chemical and pharmaceutical applications as well as processing industry. Due to the high-speed characteristics and rugged compact industrial design, the EVK HELIOS EQ32 imaging system will stand its ground in rough industrial analysis applications as well as in a research lab or in a high-speed industrial sorting line.

[1] Refers to the optimum responsivity range of the sensor (1004 nm – 1690 nm).

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V01-19

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	312 pixels
PIXEL SIZE	30 x 30 µm
OPTICAL COUPLING	C-mount lens
SLIT	60 µm
INTERFACES	GigE Vision (GV) [1], Camera link (CL) [2]
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 %

1) GigE Vision supports configuration & data streaming, 2) Camera Link (optional) supports classified data/analysis data streaming only

DATA OUTPUT

	Data Output
1	High quality calibrated spectral data (12bit GigE-Vision)
2	3x 8bit analysis data or classified data

ORDERING INFORMATION

PRODUCT	Art. No.
HELIOS EQ32	Helios E 19026

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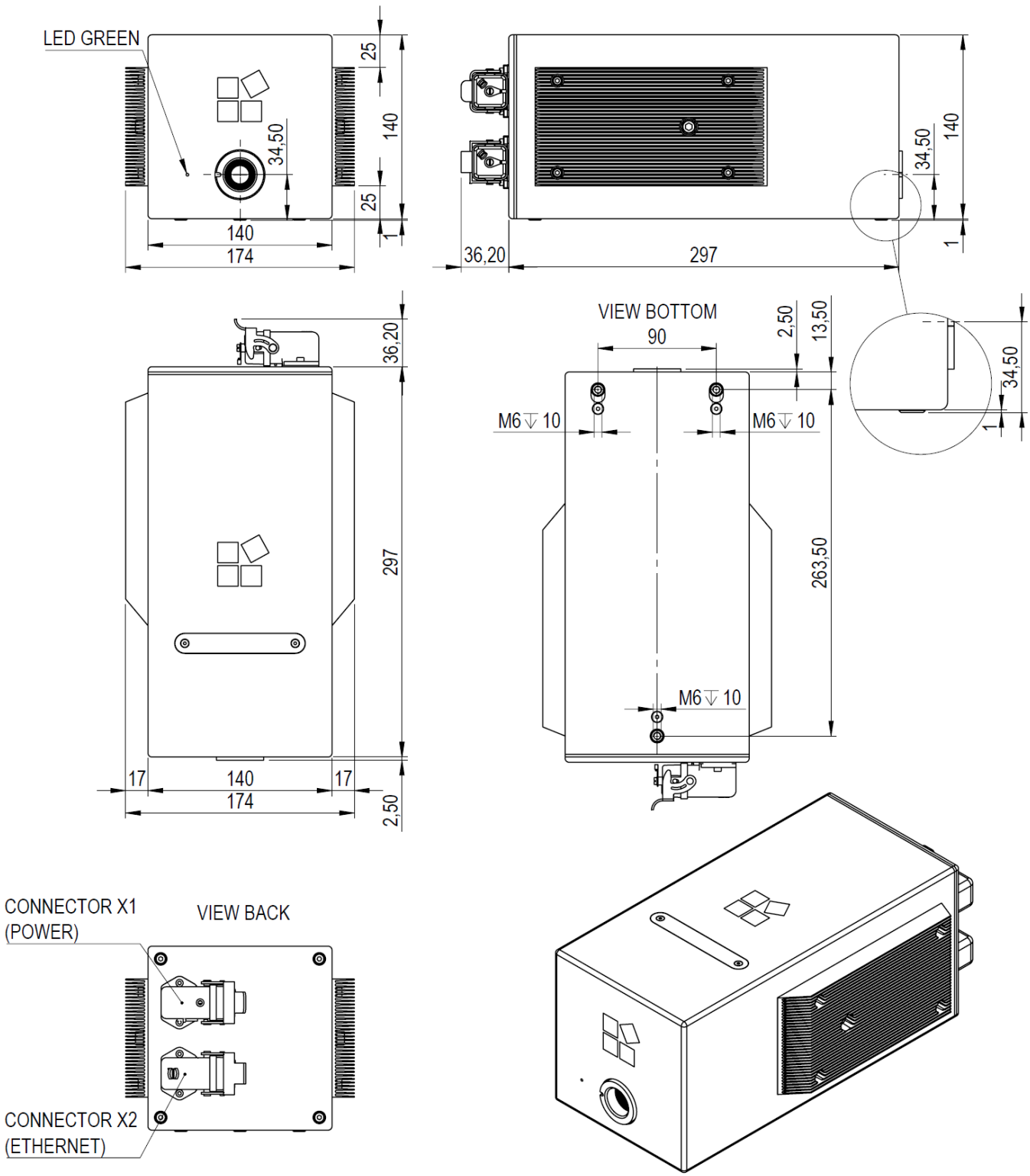
MECHANICAL DIMENSIONS (mm)



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