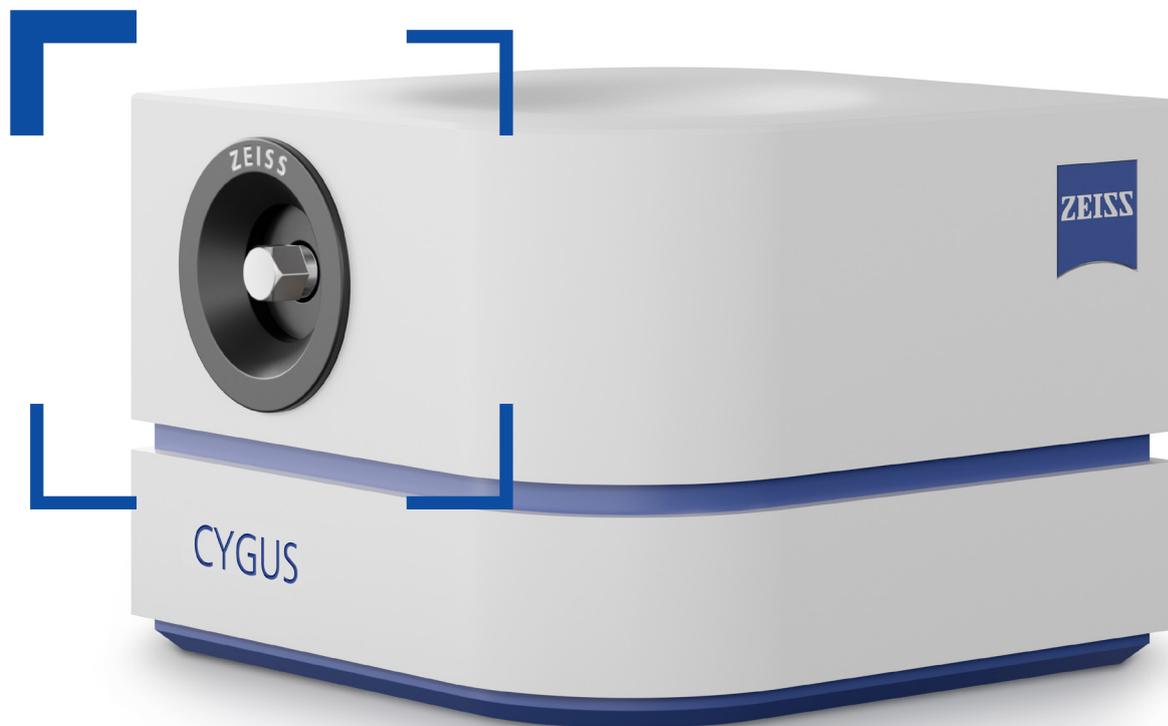


High performance in a compact package

The latest evolution of CMOS
spectrometers from ZEISS



CYGUS® from ZEISS



Overview

CYGUS® is the latest evolution of high-performance, compact and fiber-coupled spectrometer systems from ZEISS covering the 190 – 1100 nm spectral range. The dedicated optical design is based on ZEISS aberration-corrected, flat-field holographic gratings

with an integrated order-sorting filter minimizing stray light effects while guaranteeing superior imaging over the entire spectral range.

The CYGUS® spectrometer family offers great versatility in CMOS detector

options with configurations for the highest resolution, high sensitivity and fast readout.

CYGUS® is available as an OEM version with metal housing for system integration as well as in tabletop form.



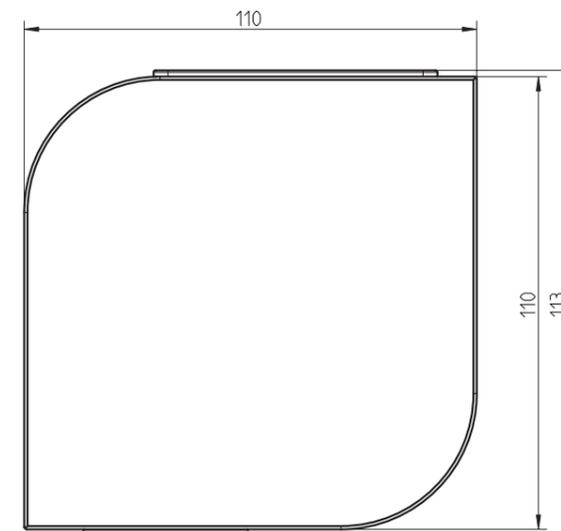
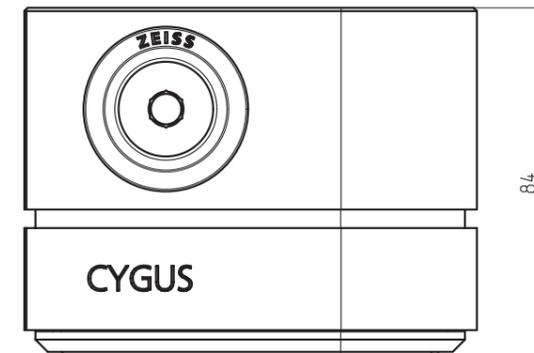
Applications

CYGUS® is ideally suited for low-light applications, such as fluorescence, emission, absorbance and reflectance measurement – whether in the lab or as an OEM industrial product. Applications include:

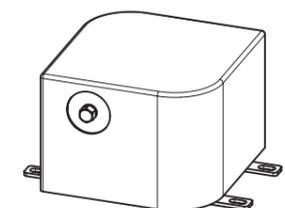
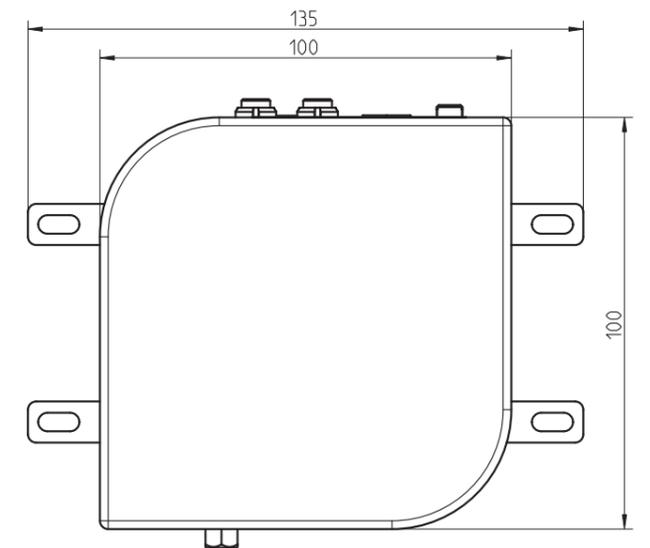
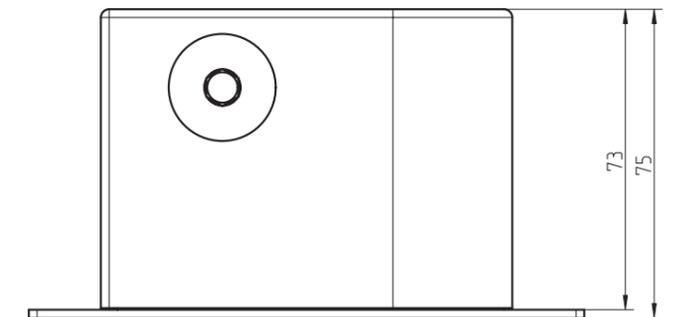
- Semiconductor Process Control (OES, Spectral Ellipsometry)
- Thickness Measurement
- HPLC Detectors
- Emission Spectroscopy
- Colorimetry/LED Testing
- Pharma & Healthcare

Dimensional Drawing

CYGUS® Demo-Kit



CYGUS® OEM-Kit



Technical Data

Spectral range	190 – 1100 nm	
Resolution (FWHM)	1.0...2.8 nm (depending on slit size and sensor type) 2.0 nm (typ.)	
Optical entrance	SMA connector 40 µm optical slit (custom slit sizes available) NA = 0.22	
Blaze wavelength	230 nm / 400 nm / 750 nm	
Straylight	< 0.1 %	
Integration time	> 100 µs	
Detector	Hamamatsu CMOS detector	
ADC	16-bit, 1-10 MPixel/s	
Interfaces	USB 3.0 Digital I/O: 1x Trigger In and Out (TTL)	
Power Supply	9-24 V DC, 200 mA	
Dimensions L x W x H	OEM-Kit: 100 x 100 x 73 mm ³ Demo-Kit: 110 x 110 x 84 mm ³	
Environmental	Operating temperature	0 °C to +60 °C
	Relative humidity	< 90% (non-condensing)
	Storage temperature	-40 °C to +70 °C

Detector Options and Specifications

Spectral range	No of pixels	Spectral Pixel Dispersion	Frame-Rate
High Resolution S13496	4096	0.22 nm/px	2.38 kHz
High Sensitivity S11639	2048	0.44 nm/px	4.63 kHz
Fast Readout S12198	1024	0.88 nm/px	9.41 kHz

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