



True RGB
True Resolution
True Zeutschel

Zeutschel CAM

New Zeutschel Camera – Precision unlocked, Resolution redefined!

In the world of professional digitisation and studio photography, every detail matters. With One Shot and Pixelshift capture, the new Zeutschel cameras deliver outstanding clarity, color fidelity, and detail for archival, heritage, fine art, and high end imaging. These are not just cameras, but precision imaging systems built on more than 60 years of experience in cultural heritage digitization, setting new standards in image quality and workflow efficiency.

A New Era of Color Accuracy and Resolution

Zeutschel's new X/Y Pixel-Shift Camera System redefines precision imaging. With true sub-pixel precise movement in both X and Y axes, every single pixel captures real RGB data — detecting colour instead of guessing.

The result: full-color fidelity, moiré-free images - unprecedented detail level in addition for archival and cultural-heritage digitisation.

Pixel-Shift Technology – from 1 to 16 Shots

- 1-Shot: fast, high-quality single capture for production scanning.
- 4-Shot Mode: colour-true RGB capture with real RGB detection and clear images.
- 16-Shot Mode: the pinnacle of detail — ultra-high-resolution output up to 600 MP on 150 MP backs or almost 1 GigaPixel (988 MP) on Zeutschel 250 MP (245 MP usable) backs.

Image registration happens on the fly, ensuring full workflow speed and consistency.

“Jailbreaking” the Phase One IQ4

Zeutschel's engineering team has achieved what others considered impossible:

The Phase One IQ4 150 back can now be repurposed when mounted on the new Zeutschel X/Y system — enabling true pixel-shift and full-color RGB detection.

This turns existing IQ4 camera backs into 600 MP, fully calibrated capture devices integrated our OmniScan accurately.

Ultra-High-Resolution Optics

Dedicated super-high-resolution reprographic lenses ensure that every pixel is resolved cleanly and accurately.

Full Calibration and Workflow Control under OmniScan

The “One Click Calibration” precisely adjusts the acquired sampling rate, exposure, gain, and white balance to the specific capture conditions. It also includes “shading” correction, also known as flat-fielding. A dedicated lens calibration for distortion removal is also part of the workflow.

Furthermore, additional scene-referred calibration functions are available. These include ICC camera RAW profiling for color-accurate output, OECF calibration, pixel shift calibration and automatic dead-pixel detection and correction.

This creates an ISO-calibrated, scene-referred workflow — delivering precise images that meet or exceed FADGI, Metamorfoze and ISO 19264-1 standards.

Technical data	Zeutschel CAM
Type	X/Y pixel shift camera
Supported medium format camera backs	Zeutschel 151MP (Sony IMX411, 14192x10640 Pixel 3,81µm) Zeutschel 245MP (Sony IMX811, 19200x12800 Pixel 2,7µm) PhaseOne IQ4 150 (14204x10652 Pixel 3,76µm)
Capture Mode	One, 4- and 16-shot electronic shutter
Lens Range	Variety of ultra-high resolution repro lenses
Focus travel in mm	60
Focus travel accuracy in µm	0,5
Pixelshift mechanism	Ultra precision piezo drives
Active cooling	Yes, optional on Zeutschel digital backs
Lens connection	Reliable bayonette connection
Positioning range (X/Y in µm)	14
Surface accuracy (Z in µm)	0,5
Payload capacity (kg)	0,5
Live Image	Yes
Autofocus	Yes, based on live image
Dead Pixel	Dead pixel detection and correction