

## Iron CoaXPress 19

# Iron CoaXPress Small Form Factor, Ruggedized Camera

### Innovative Approach

The **Iron CoaXPress 19** is a low-cost, low-power, high speed global shutter CMOS camera with up to 4 channels of CoaXPress 2.0 12G Interface ((Micro-BNC connector) which supports full HD (1920×1080) high quality video at rates up to 2360fps.

### Intelligent Design

The Camera incorporates a 10 µm global shutter sensor and a direct lens control (optional) without need of external devices. With compact outline and low power design this camera could fit in tight spaces.

### Applications:

- Slow Motion
- High speed
- Motion analysis
- Broadcast
- Traffic control
- Industrial inspection markets

### Key Features:

- 2.1 Megapixel up to 2360 fps
- Increased speed with reduced ROI
- Monochrome and Color models
- Up to 10W power at full rate
- 4 x 12Gbps CoaXPress interface
- Commercial and rugged industrial grade options
- Full EMVA1288 report
- Full built-in self-test (BIT)
- Full built-in voltage testing
- Customization as per user requirements

## Technical Data

Feature	Description
Pixel Size	10 $\mu\text{m}$ x 10 $\mu\text{m}$
Resolution	1920 (H) x 1080 (V)
Optical Format	4/3"
Sensor	LUX19HS
Video Output	x 4 channels CoaXPress 2.0 up to 50 (12.5 x 4) Gbps (CXP3, CXP6, CXP12)
Interface connector	x 4 Micro-BNC
Output Resolution	8 or 10 bit
Max Frame Rate	2360 fps @8 bit resolution 1890 fps @10 bit resolution
Image Acquisition	Continuous / Triggered
Electronic Shutter	Global shutter
Monochrome/ Color	Monochrome / Color
Responsivity	20V/Lux's @ 550nm
Temporal Noise	< 17.9 e-
Full Well Charge	12000 e-
Dynamic Range	> 56.1 dB @ 520 nm
Signal-to-Noise Ratio (SNR Max)	41 dB @ 520 nm
Quantum Efficiency (QE) X FF	54.275% @ 520 nm
On Camera Processing	Defect pixel correction LUT Digital binning (2 x 2) Gain (Analog / Digital) – manual / auto ROI Auto/Manual black level Auto Exposure/Gain Image H/V flip
Additional Features	Over/under voltage protection Reverse voltage polarity protection Three points of temperature sensing Frame-by-frame shutter speed change Per-pixel FPN (optional) Global reset

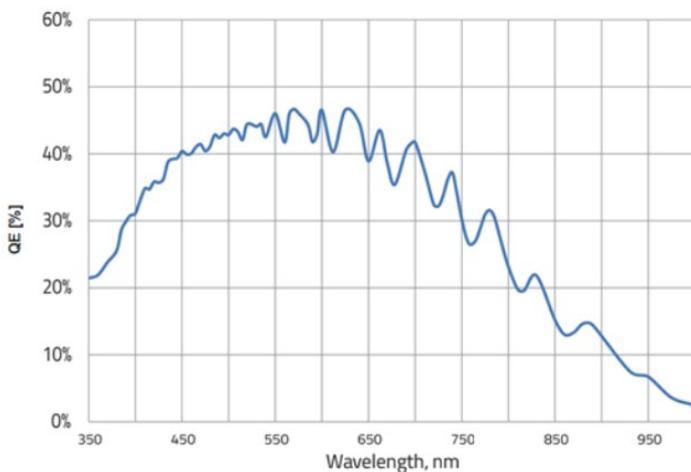
## Mechanical & Electrical

Feature	Description
Dimensions (without lens mount)	62 mm x 62 mm x 44 mm (Height x Width x Depth)
Lens mount	F-Mount, Canon EF-mount, Birger EF-mount or M42-mount
Weight (without lens or mount)	450g
Typical current	375mA @ 24V
Power input	PoCXP full support
	External 10-28V input
Power consumption	<9W @ 24V DC
Mount	Front mount
Heat dissipation	Active airflow (Fan)
Sensor Mechanical Positioning	≤ 0.15°
Operating temperature	Commercial: 0°C to 50°C, 20-85% humidity (non-condensing)
	Industrial: -40°C to 70°C, 20-85% humidity (non-condensing)
Storage temperature	Commercial: 0°C to 55°C, 20-85% humidity (non-condensing)
	Industrial: -40°C to 75°C, 20-85% humidity (non-condensing)
Shock/Vibration [2]	MIL 810F

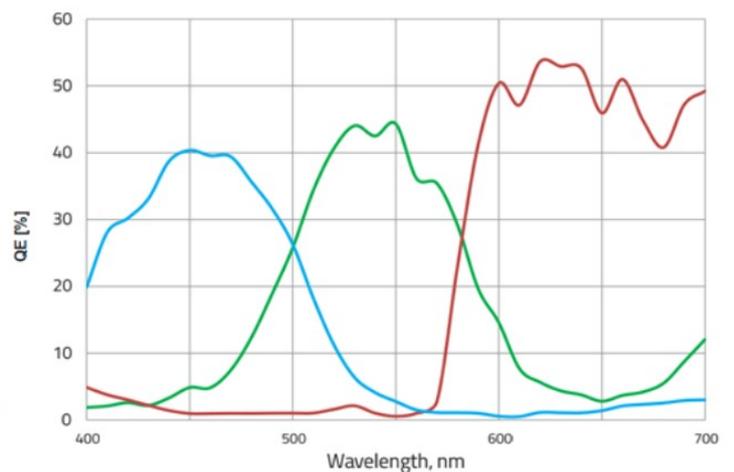
\* KAYA Instruments reserves the right to update the data sheet from time to time without prior notice.

## LUX19 Spectral Responses

LUX19HS Mono Spectral Response

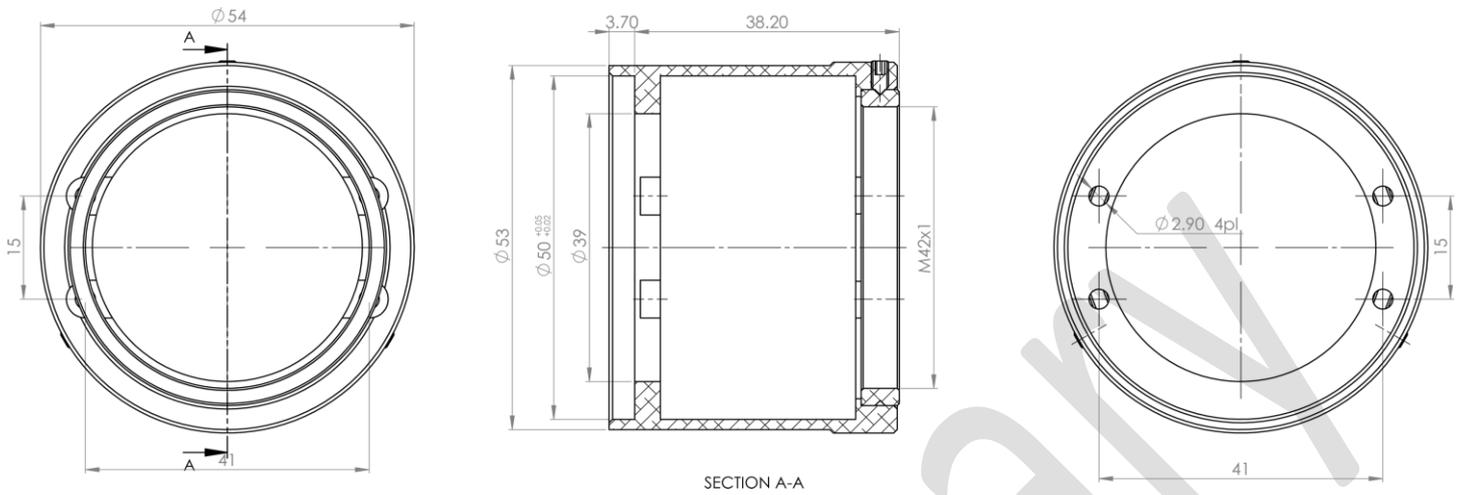


LUX19HS Color Spectral Response

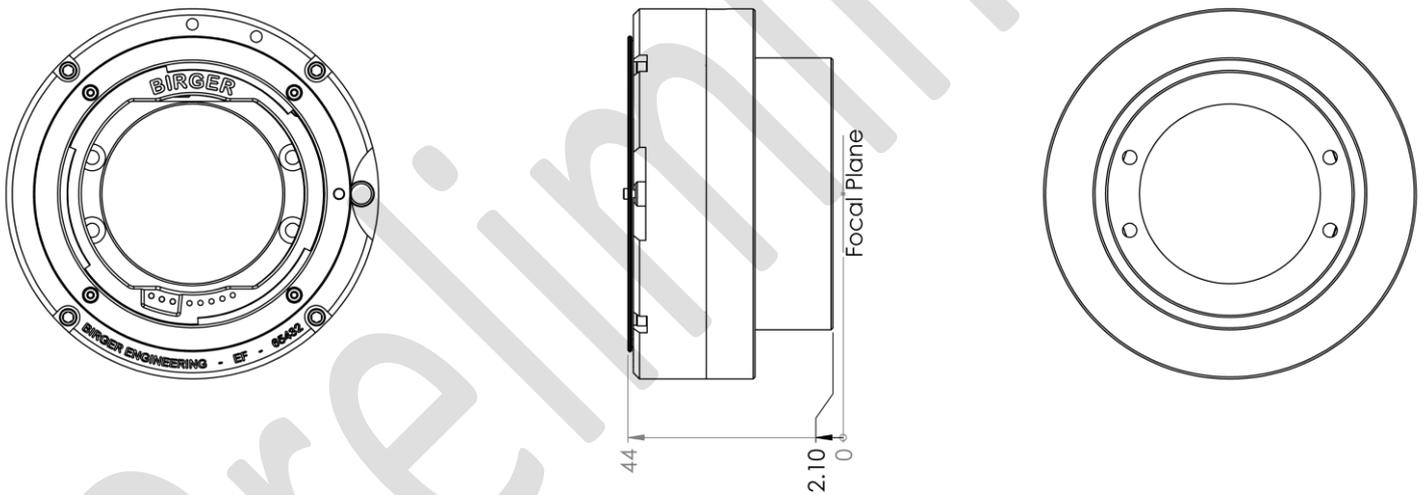


# Lens Mounts Mechanical Drawings

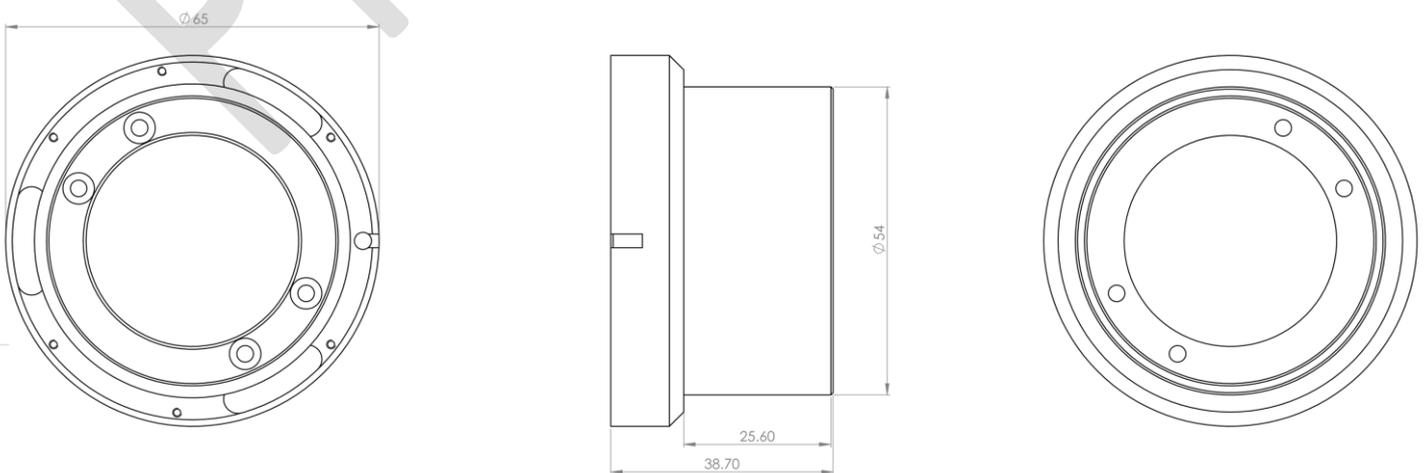
## Nikon F mount:



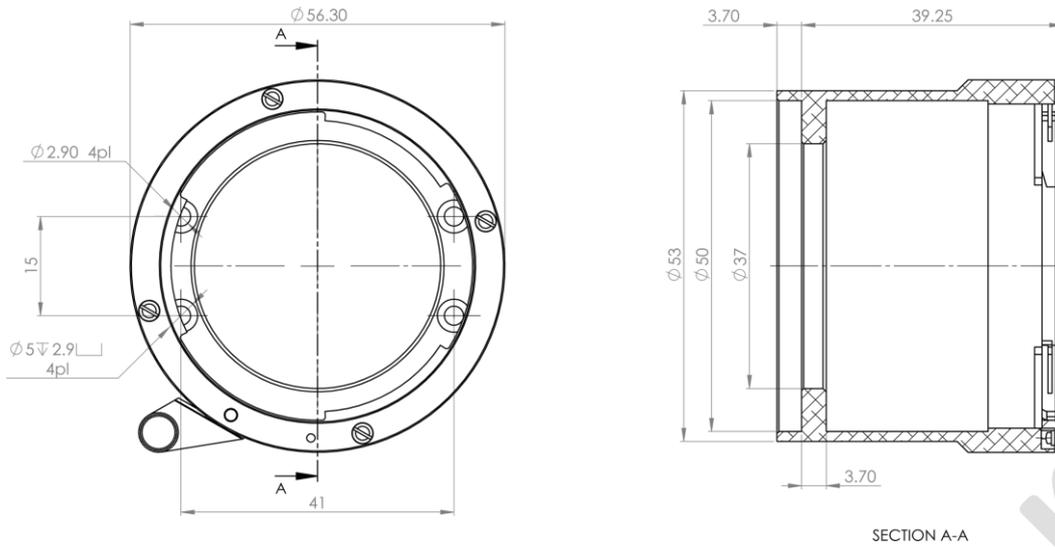
## Birger EF mount:



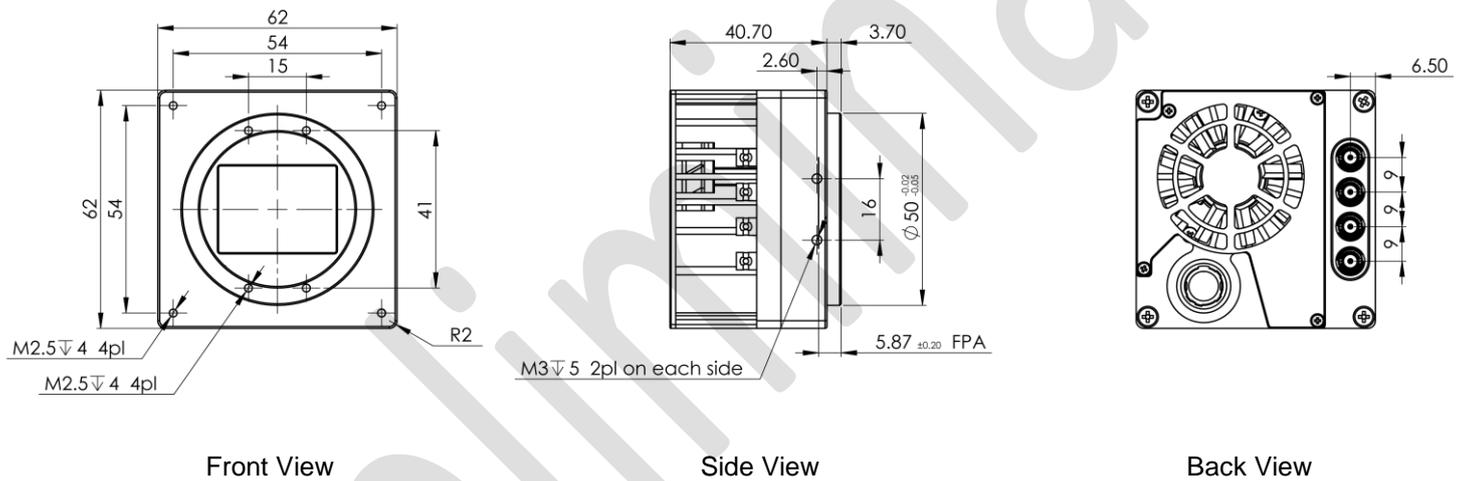
## Canon EF mount:



## M42 mount:



## Mechanical Drawings



## Compatibility

**KAYA Instruments** creates and maintains compatibility and interfaces for the most common and advanced vision image processing libraries and applications.

❖ Supported vision standards:



❖ Supported vision libraries:



## Contact Us

Please feel free to contact our team with any question or further inquiry at [info@skyblue.de](mailto:info@skyblue.de) – we will be happy to provide assistance and consultation.

Preliminary

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