

PROMICAM 3-12C

12 Mpx Color CMOS USB 3.0 Digital Camera
with up to 4K Live View Resolution
for Microscopy and Macro Applications



PROMICAM 3-12C 12 Mpx CMOS USB 3.0 digital camera provides live view with resolution up to 4K, high live view frame rates, increased sensitivity and high quality images with 12 Mpx resolution. This camera is suitable for wide range of microscopy as well as macro applications.

High Quality Images in High Resolution

PROMICAM 3-12C camera provides crystal sharp high quality images with single-shot resolution up to 12 Mpx (4000 x 3000 pixels).

High Live View Frame Rates Suitable for "Live Imaging" Applications

Modern USB 3.0 interface provides high live view frame rates, while CPU load remains low. Live view in 4K UHD resolution (3840 x 2160 pixels) reaches frame rate 16 fps, live view in full 12 Mpx resolution (4000 x 3000 pixels) reaches 11.5 fps. Lower live view resolutions are available using ROI function and provide maximal frame rate 60 fps (in resolution up to 2048 x 1080 pixels).

Increased CMOS Sensor Sensitivity

PROMICAM 3-12C camera is equipped with a Sony® Exmor R series CMOS sensor with rolling shutter and global reset. The Sony® Exmor R back-illuminated CMOS architecture increases quantum efficiency and reduces read noise for improved sensitivity and dynamic range. The sensor has flipped the wiring layer with the photodiode so the photodiode is completely free from any wiring obstruction, allowing significantly more light to be collected even with small pixels thereby allowing to shrink the pixel size for higher resolution but without needing to sacrifice sensitivity. The results are sharp, high-quality, color images.

Support in QuickPHOTO Programs

PROMICAM 3-12C camera is fully supported by QuickPHOTO microscopy imaging software suite.

Main Features:

- 1/2.5" CMOS SONY® EXMOR R sensor
- Rolling shutter with global reset
- 12 Mpx sensor resolution (4000 x 3000 pixels)
- Up to 4K live view resolution
- Live view frame rates up to 60 fps
- USB 3.0 interface
- Supported by QuickPHOTO programs

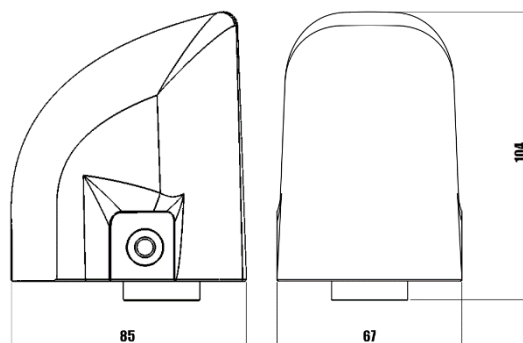
Suitable for Applications:

- Brightfield/Darkfield
- DIC
- Biology/Live Cell Imaging
- Histology/Pathology/Cytology
- Metrology/Mineralogy/Metallurgy/Geology
- Quality control/ Semiconductor Inspection
- Documentation and Archiving
- Education

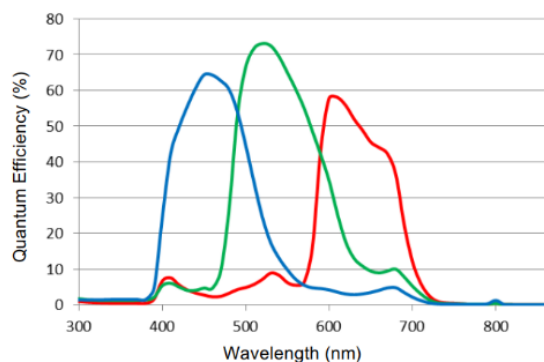


Sensor Specifications	
Sensor Type	Sony® EXMOR R CMOS, color, rolling shutter/global reset
Sensor Size	1/2.5"
Pixel Size	1.55 x 1.55 µm
Resolution	4000 x 3000 pixels (12 Mpx)
Camera Specification (when used with QuickPHOTO programs)	
Image Resolution	4000 x 3000, 4096 x 2160, 3840 x 2160, 2560 x 1920, 2048 x 1536, 2048 x 1080, 1920 x 1080, 1024 x 768
Live View Resolution@Max. Frame Rate (fps)	4000 x 3000@11.5 fps 4096 x 2160 (4K - ROI)@16 fps 3840 x 2160 (4K UHD - ROI)@16 fps 2560 x 1920 (ROI)@27 fps 2048 x 1536 (ROI)@27 fps 2048 x 1080 (ROI)@60 fps 1920 x 1080 (Full HD - ROI)@60 fps 1024 x 768 (ROI)@60 fps
Lower Resolutions	Subsampling, ROI
Exposure Times	1/6000 – 1 s
Gain	1 – 16x
Exposure Mode	Automatic, automatic-interactive, fluorescence (SFL Auto), manual
White Balance	Automatic, automatic-regional, manual
Black Balance	Automatic-regional, manual
Camera Characteristics	
Dynamic Range	64.49 dB
Saturation Capacity	5 966 e-
Quantum Efficiency (green color 525 nm)	73 %
Read Noise	3.06 e-
Max. Signal to Noise Ratio	37.76 dB
Interface	USB 3.0 SUPERSPEED 5 Gbit/s (backwards compatible with USB 2.0)
Mount	C-mount
Dimensions	67 x 85 x 104 mm
Weight	385 g
Minimal System Requirements	
Processor	Intel® Core i3
RAM	2 GB
Slot for USB 3.0 Interface Card	1x PCI EXPRESS 2.0 for desktop computers or 1x ExpressCard for laptops
Operating System	Microsoft® Windows® 7/8/8.1/10 (32bit or 64bit)
Recommended Computer Configuration	
Processor	Intel® Core i5 or better
RAM	4 GB
Slot for USB 3.0 Interface Card	1x PCI EXPRESS 2.0 for desktop computers or 1x ExpressCard for laptops
Operating System	Microsoft® Windows® 7/8/8.1/10 (64bit)

Dimensions (mm):



Quantum Efficiency:



Sample Images:

