

# AUTOFOCUS LIQUID LENS CAMERAS

## EDMUND OPTICS



Pixelink has developed a family of USB 3.0 autofocus liquid lens cameras that support Edmund Optics Cx line of lenses. These cameras are ideal for high-speed, autofocus imaging applications.



### Important Features

- » One push-autofocus, move focus from one point to another at high speed
- » Seamless integration of a compact, low-power durable liquid lens
- » Get a sharp image from a few centimeters to infinity in less than 20 ms
- » Get started quickly by integrating your autofocus application with the Pixelink SDK

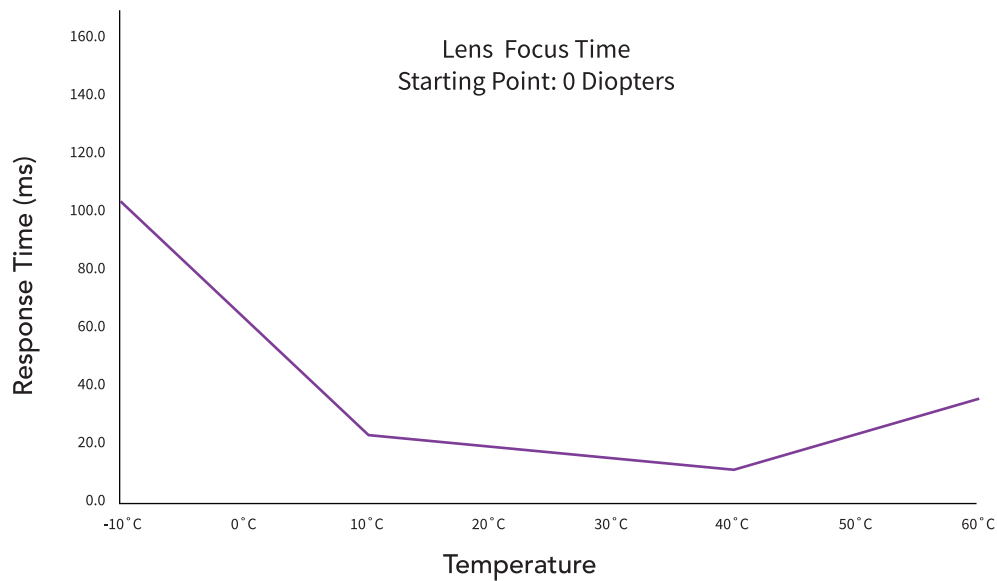
### Applications

- » Bar-code Reading
- » Biometrics- Facial and Retinal
- » Inspection
- » Biotechnology
- » Medical Applications



### Long Lifespan, Fast Focus Camera

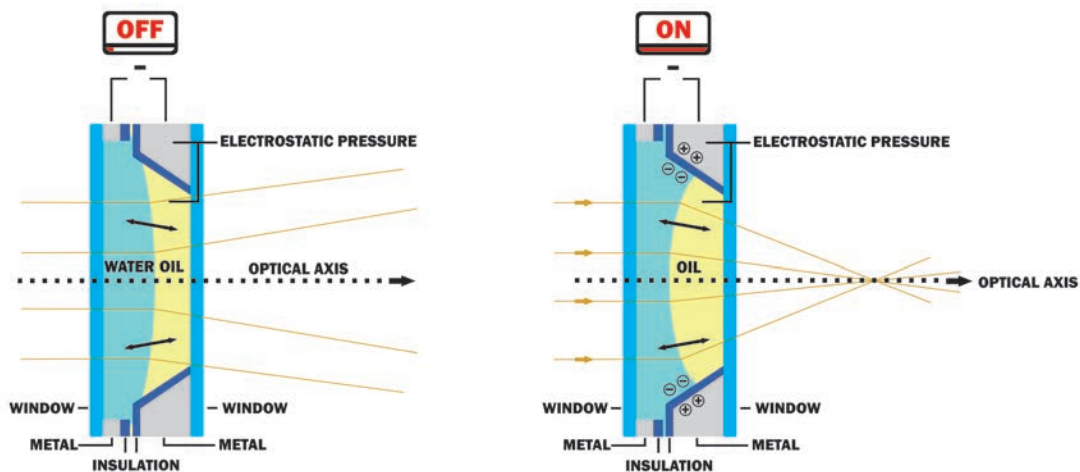
While the typical lifespan of a mechanical lens system is a few hundred thousand cycles, liquid lenses have been tested for over 100 million cycles without performance degradation. Liquid lenses can also reconfigure themselves in tens of milliseconds and are robust with respect to vibrations, making them ideal for applications that require fast focus changes and high vibration environments. The combination of liquid lens integrated with our high-speed USB 3.0 cameras brings cutting edge solutions to industrial and medical applications.



You can see at 10°C, it takes about 20ms or less to snap into any focal point. For reference, a high end DSLR camera with AF would take 300+ ms to do the same.

## Advantages of an Autofocus Lens Camera

- » Large range of optical variation - displacing a liquid interface allows for large phase shift variations
- » Sturdiness - it has been tested for over 100 million cycles and shows zero performance degradation
- » Shock resistance - it shows excellent output before and after shock tests
- » High-speed - it can reconfigure in tens of milliseconds (see diagram above)
- » Low power consumption - typically it dissipates about 15mW; ten times lower than other systems



## Select the Autofocus Camera and Lens that Fits Your Application

Pixelink has a full line of USB 3.0 autofocus cameras including:

Camera Model	Color Space	Sensor	Resolution	Sensor Size
PL-D721CU	Color	ON Semi Vita 1300	1.3 MP	1/2"
PL-D721MU	Monochrome	ON Semi Vita 1300	1.3 MP	1/2"
PL-D722CU	Color	ON Semi Vita 2000	2.3 MP	2/3"
PL-D722MU	Monochrome	ON Semi Vita 2000	2.3 MP	2/3"
PL-D729MU	Monochrome	ON Semi Mano 9600	9.5 MP	2/3"
PL-D732CU	Color	CMOSIS CMV 2000	2.2 MP	2/3"
PL-D732MU	Monochrome	CMOSIS CMV 2000	2.2 MP	2/3"
PL-D732MU-NIR	Monochrome	CMOSIS CMV 2000	2.2 MP	2/3"
PL-D753CU	Color	Sony IMX421	2.8 MP	2/3"
PL-D753MU	Monochrome	Sony IMX421	2.8 MP	2/3"
PL-D755CU	Color	Sony IMX250	5.0 MP	2/3"
PL-D755MU	Monochrome	Sony IMX250	5.0 MP	2/3"
PL-D775CU	Color	ON Semi Color MT9P006	5.0 MP	1/2.5"
PL-D775MU	Monochrome	ON Semi Mono MT9P031	5.0 MP	1/2.5"
PL-D7715CU	Color	ON Semi MT9F002	15 MP	1/2.3"

### Edmund Optics Liquid Lens Cx Series Fixed Focal Length Lenses

Effective Focal Length	12 mm	16 mm	25 mm	35 mm
Maximum Camera Sensor Format	1/2"	1/2"	2/3"	2/3"
Aperture (f#)	f/6	f/5	f/6	f/8
Working Distance (mm)	40 - ∞	65 - ∞	125 - ∞	200 - ∞



