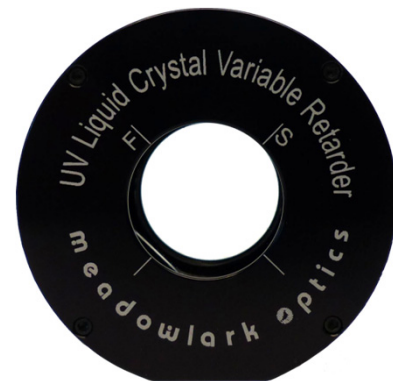
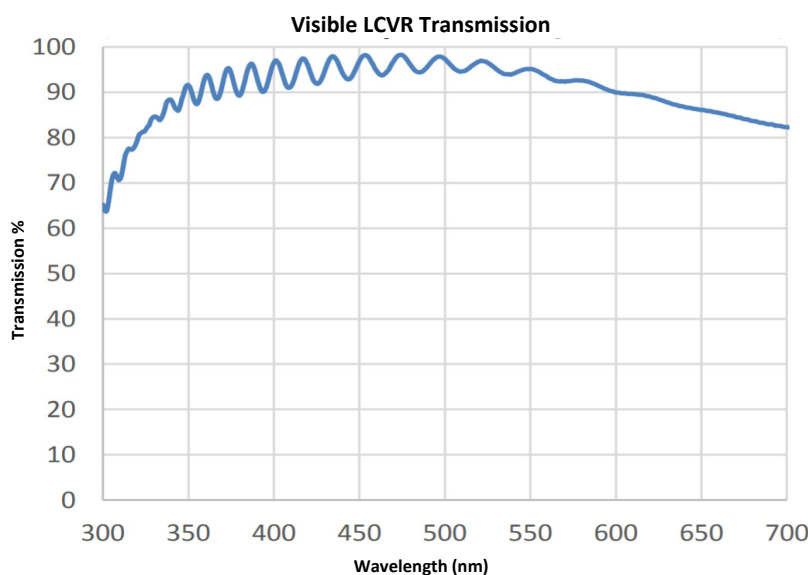
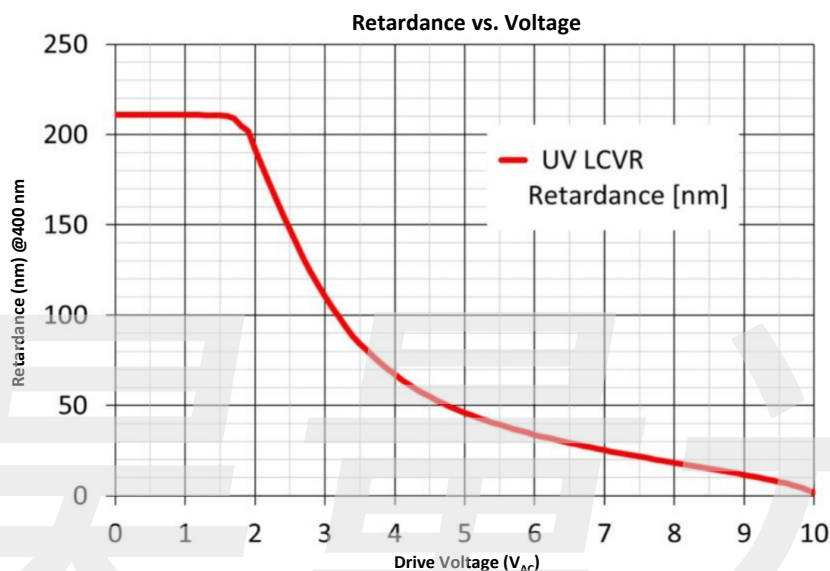


UV Liquid Crystal Variable Retarder

Liquid crystal technology for polarization control now extends into the ultraviolet. While standard LC materials are susceptible to UV light damage below 450 nm, Meadowlark has designed a new UV resistant LCVR material capable of operating at lower wavelengths (as low as 350 nm). These parts can be custom configured for use as variable attenuators or polarization rotators and are compatible with our standard line of liquid crystal controllers.



Key Features

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- Phase or Amplitude modulation of UV spectrum
- Analog modulation
- Non-mechanical polarization control
- Low absorption
- High UV tolerance LC

Liquid Crystal Suite

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Variable Retarders

- Liquid Crystal Variable Retarder
- UV Variable Retarder
- MWIR Variable Retarder
- OEM LCVR

Rotators

- Achromatic High Speed Rotator
- Binary Rotator
- Polarization Rotator

Shutters / Attenuators

- Achromatic High Speed Shutter
- High Contrast Shutter
- Variable Attenuator

Controllers

- Analog Controller
- FLC Controller
- LC Digital Interface Controller
- Temperature Controller
- Two Channel High Voltage Controller



SPECIFICATIONS

Retarder Material	Nematic liquid crystal
Substrate Material	UV grade fused silica
Wavelength Range	350 – 450 nm (please specify)
Maximum Retardance	$1/2 \lambda$ at 400 nm
Minimum Retardance	0.06λ at 400 nm (at 10 V)
Transmitted Wavefront Distortion	$\lambda/4$ (P-V @ 633) $\lambda/16$ (RMS @ 633)
Surface Quality	40 – 20 scratch-dig
Beam Deviation	2 arc min
Reflectance*	AR Coatings are available
Diameter Tolerance	± 0.010 in.
Temperature Range	0°C to + 50°C (Operating)

Custom configurations available.

ORDERING INFORMATION

Diameter in. (mm)	Clear Aperture in. (mm)	Thickness in. (mm)	Part Number
1.00 (25.4 mm)	0.37 (9.4 mm)	1.23 (31.24 mm)	LVR – 100 – UV
2.00 (50.8 mm)	0.70 (17.8 mm)	0.75 (19.05 mm)	LVR – 200 – UV