

## Two Channel High Voltage Interface

Our two Channel High Voltage Digital Interface is designed for independent high precision computer control of up to two Meadowlark Optics Swift LC liquid crystal devices at one time.

The D3060HV Package includes all the functionality of the D3050 plus the high voltage circuitry necessary for Swift LC devices. Also included is capability for temperature monitoring and control on one channel. The Advanced Package allows the amplitude of the 13 kHz square wave output to be driven either by an external signal supplied to a front panel connector or specific CellDRIVE generated waveforms including sinusoidal, square, triangle, sawtooth and transient nematic effect waveforms. Additional functions include the capability to output a sync pulse on a front panel connector at desired points in the CellDRIVE generated waveforms and the ability to save/restore all CellDRIVE settings to/from a file.

### Package Includes:

- D3060HV Controller Unit with external input and sync output front panel connectors
- User Manual
- USB and RS232 cables
- Temperature control cable
- LC – Controller interface cable
- Power supply and power cable
- Temperature monitoring and control
- CellDRIVE 3100 HV Software
- National Instruments LabVIEW™ virtual instruments driver



### Key Features

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- USB or RS232 interface
- C++ code examples
- Compact and simple to use
- Microsoft® HyperTerminal configuration file included
- Independent control of voltage levels on two channels to 10 mV resolution
- Includes National Instruments LabVIEW™ Virtual Instrument drivers to interface with custom software

### 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
- Polymer Dispersed Shutter
- High Contrast Shutter
- Variable Attenuator

#### Controllers

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



## SPECIFICATIONS

<b>Fundamental Drive Waveform</b>	13 kHz ac square wave
<b>Modulation Amplitude</b>	0 – 100 V rms
<b>Modulation Resolution</b>	10 mV (1.55 mV using LabVIEW™ subroutines)
<b>DC Offset</b>	< 50 mV
<b>Communications Interface</b>	USB or RS232
<b>LC Cell to Controller Connections</b>	LEMO™ RF cable, 2 m length
<b>Power Requirements</b>	100-240 V ac 47 – 63 Hz 2.5 A
<b>Safety Feature</b>	Keyed Interlock Switch
<b>Modulation Waveforms</b>	External modulation input (0-5 v) Sinusoidal Triangle Square Sawtooth Transient nematic effect
<b>Temperature Control</b>	Active heating/passive cooling to within $\pm 1^\circ\text{C}$ of nominal set point
<b>Sync Output</b>	TTL, 1 $\mu\text{s}$ pulse, user specified phase

## ORDERING INFORMATION

<i>Item</i>	<i>Part Number</i>
High Voltage Controller	D3060HV