

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

High Contrast Shutter

Variable Attenuator

Controllers

Analog Controller

FLC Controller

LC Digital Interface Controller

Temperature Controller

Two Channel High Voltage Controller



SPECIFICATIONS

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

ORDERING INFORMATION

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