

DR50 FLC Driver



Features

Optimized waveform for FLC devices

TTL/5 V CMOS external trigger

0.1 Hz–20 kHz frequency range

Sync output signal

Crystal control phase lock circuitry

Low drift and jitter

Gate input for disabling the drive signal

Like the DR95, the DR50 FLC Driver is designed to obtain maximum performance from Displaytech's Shutters and Polarization Rotators. The DR50 however, has its own timing generator while the DR95 Driver is designed to be used in conjunction with other signal sources.

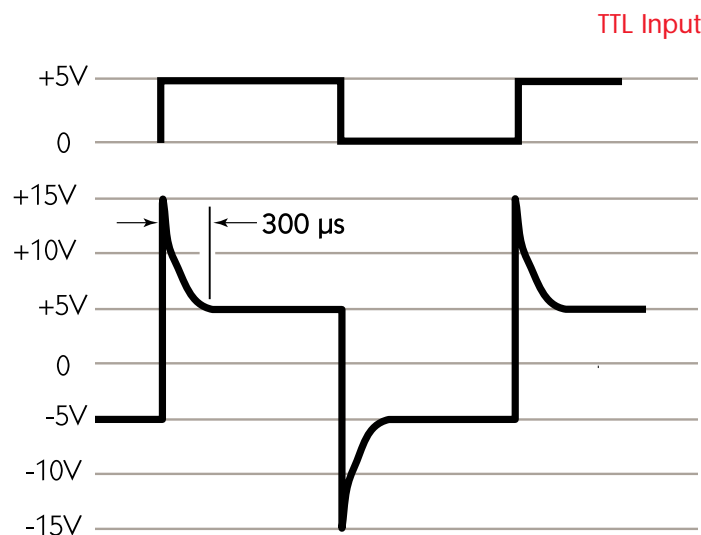
The DR50 FLC Driver contains precision quartz crystal, phase-locked-loop synthesizer circuitry for signal selection, frequency/mode display, and gating. Also included is a high-current, high-compliance power output stage capable of driving several large FLC devices at once. The unit is self-contained and requires only its detachable power cord and an appropriate FLC device and cable for immediate operation. Displaytech's DR50 Driver has two operating modes: Internal and External. This allows great flexibility in choosing functions.

The Internal Operating Mode allows the DR50 driver to switch the shutter (at a 50% duty cycle) and produce a synchronizing signal for test equipment or other system components. The synchronizing signal is a logic level square wave. The internal quartz-crystal phase-lock-loop frequency synthesizer offers a versatile and stable time base with superior resolution, drift and jitter characteristics.

In the External Mode, the output-state of the DR50 Driver is controlled by a user-supplied signal instead of by the internal synthesizer. This enables user-supplied signals from a variety of sources, including the standard TTL and CMOS, 6-15 V CMOS, and analog signals with the ± 20 V maximum range.

LED lights indicate the status of the FLC device.

Corresponding FLC Drive Waveform



Specifications

PARAMETERS

AC line input voltage:	135 VAC or 270 VAC
External input voltage:	± 20 V (=2.5 V threshold)
GATE input voltage:	± 20 V (=2.5 V threshold)
SYNC output load:	± 20 LSTTL loads or ± 15 mA
FLC drive output current:	± 1 AMP (peak)
Operating temperature:	0° to +60°C
Storage temperature:	-25° to +70°C
Humidity:	0 to 95% RH non-condensing

NOTE: The DR50 FLC Driver may be powered from 105-135 VAC at 50-60 Hz or from 210-270 VAC at 50-60 Hz and features a standard I.E.C. detachable power cord.

Available Frequency Ranges

Low range:	0.1 Hz to 199.9 Hz	(0.1 Hz steps)
High range:	10 Hz to 19,990 Hz	(10 Hz steps)
External mode:	DC 10 20 kHz	(continuously variable)

Displaytech DR50 FLC drivers are covered by a limited one year warranty.