

LTDV6CH | DATASHEET

Strobe controller 6 channels



KEY ADVANTAGES

Quick and accurate strobing of a wide variety of LED lightings

Easily configure and manage strobe, trigger and camera signals

Ethernet, RS485 or analogue interface

Up to 8 independently controlled output channels

Max output current up to 40A pulsed/4A continuous



Opto Engineering® range of strobe controllers offers repeatable fast pulsing for quick and accurate strobing of a wide variety of LED lightings.

SPECIFICATIONS

Electrical specifications

| | | |
|---|------|--|
| User interface | | RS485 (via Modbus/RTU slave) |
| Status LEDs | | Yes (for all I/Os) |
| Configuration software | | LTSW included |
| Output channels | | 6, independent, constant current |
| Output current range | (A) | 3.5A - 17.0 pulsed (in steps of 98 mA) |
| Max dissipable thermal power per channel | (W) | 5 |
| Synchronization inputs number ¹ | | 4 opto-isolated digital inputs |
| Synchronization outputs number | | 2 opto-isolated digital outputs |
| Pulse delay ² | (µs) | 0 - 65535 |
| Pulse width ² | (µs) | 10 - 65535 |
| Timing repeatability for pulse delay ³ | (µs) | 0.1 |
| Timing repeatability for pulse width ³ | (µs) | 0.1 |
| Supply voltage ⁴ | (V) | 24 |
| Output voltage | (V) | 0 - 36 |
| Max startup/inrush current | (A) | - |

Mechanical specifications

| | | |
|---------------------|------|----------|
| Width ⁵ | (mm) | 123 |
| Length ⁵ | (mm) | 205 |
| Height ⁵ | (mm) | 84 |
| Mass | (g) | 1300 |
| Mounting | | DIN rail |

Environment Specification

| | | |
|-----------------------------|------|-----------------------|
| Operating temperature | (°C) | 0-40 |
| Storage temperature | (°C) | 0-50 |
| Operating relative humidity | (%) | 20-85, non condensing |
| IP rating | | IP20 |
| Installation | | Indoor use only |

¹ Operate from 3.3V to 24V.

² In variable resolution depending on selected value.

³ Digital processing.

⁴ 24V supply must be regulated at ±10%.

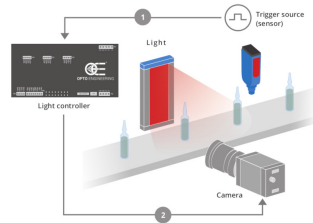
⁵ Including DIN rail where available on the product.

TRIGGERING OPTIONS AND WIRING DIAGRAM

Two typical camera triggering arrangement (Option A and B) are illustrated for each controller model. Triggering Option A) is preferred because the controller directly filters the trigger signals getting rid of unwanted noise. This configuration is possible because Opto Engineering® controllers feature dedicated synchronization outputs which are not commonly available from other manufacturers.

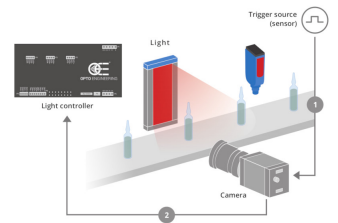
CONTROLLER TRIGGERS CAMERA

Triggering arrangement where the light controller is triggered by trigger source(s) (sensor positioned on the manufacturing line) and the lighting controller then triggers the camera(s). This arrangement has the advantage that the controller can filter the trigger signals before passing the command to the camera and the light.



CAMERA TRIGGERS CONTROLLER

Arrangement where each camera is triggered by a trigger source (sensor), the camera then triggers the light controller and starts its exposure.



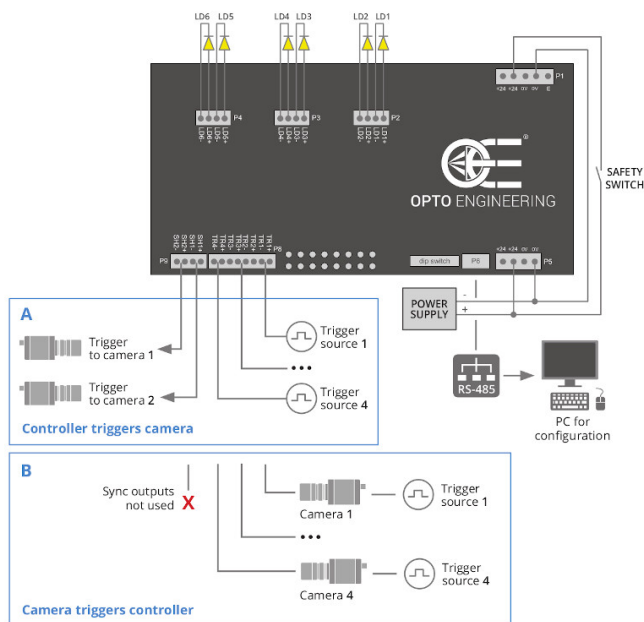
WIRING DIAGRAM

COMPATIBLE PRODUCTS

Full list of compatible products available [here](#).



A wide selection of innovative machine vision components.



All product specifications and data are subject to change without notice to improve reliability, functionality, design or other. Photos and pictures are for illustration purposes only. Data are reported by design, actual lens performance may vary due to manufacturing tolerances.

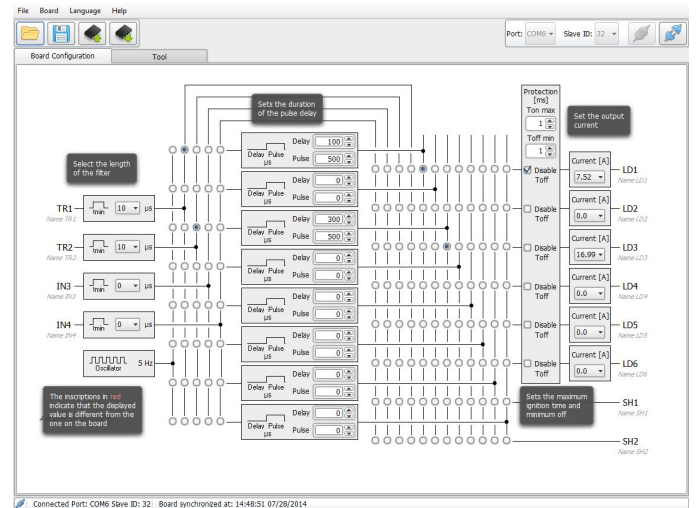
EASY CONFIGURATION

LTDV6CH can be configured via RS485. You can either download and use our free LTSW software to configure the controller from your PC or directly send low-level commands from a PC using the Modbus/RTU slave protocol (all the Modbus function codes supported by the controller are listed in the manual available online).

The LTSW software offers a very intuitive and graphical user interface where you can:

- Set the output current intensity of each connected illuminator in steps of 98 mA
- Set the pulse duration and pulse delay of each illuminator in steps of 1 μs
- Control the connected illuminators with up to 4 synchronization inputs
- Control up to 2 synchronization outputs (e.g. up to 2 cameras)
- Write and save different configurations depending on your application

To use LTSW configuration software your PC must have a native RS485 communication interface or a suitable RS485/USB converter must be used (PN: ADPT001).



Main control panel of configuration software