



LTDVE1CH-40F | DATASHEET

LED Strobe controller 1 channel, 40A pulsed - 4A continuous, fast version



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		Ethernet 100 Mbps (using a Web browser or Modbus/TCP slave or Modbus/UDP slave); RS485 (via Modbus/RTU slave)
Status LEDs		Yes (for all I/Os)
Configuration software		-
Output channels		1, constant current
Output current range	(A)	Pulsed up to 40A, continuous up to 4A
Max dissipable thermal power per channel	(W)	4
Synchronization inputs number ¹		1 opto-isolated digital input
Synchronization outputs number		1 opto-isolated digital output
Pulse delay ²	(µs)	0 - 1.000.000
Pulse width ²	(µs)	2 - 1.000.000
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)	5-195
Max startup/inrush current	(A)	-

Mechanical specifications

Width ⁵	(mm)	120
Length ⁵	(mm)	128
Height ⁵	(mm)	50
Mass	(g)	700
Mounting		4 fixing slots

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.

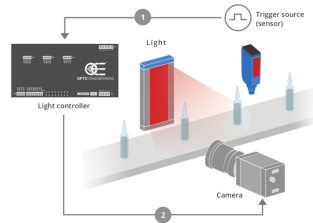
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TRIGGERING OPTIONS AND WIRING DIAGRAM

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.

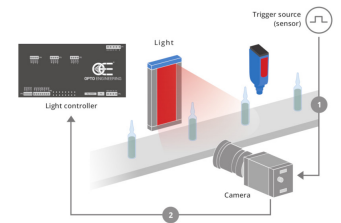
CONTROLLER TRIGGERS CAMERA

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.

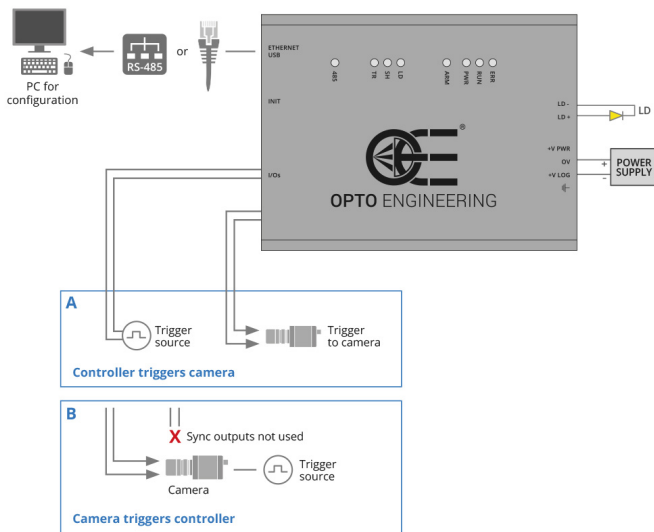


CAMERA TRIGGERS CONTROLLER

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.

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EASY CONFIGURATION

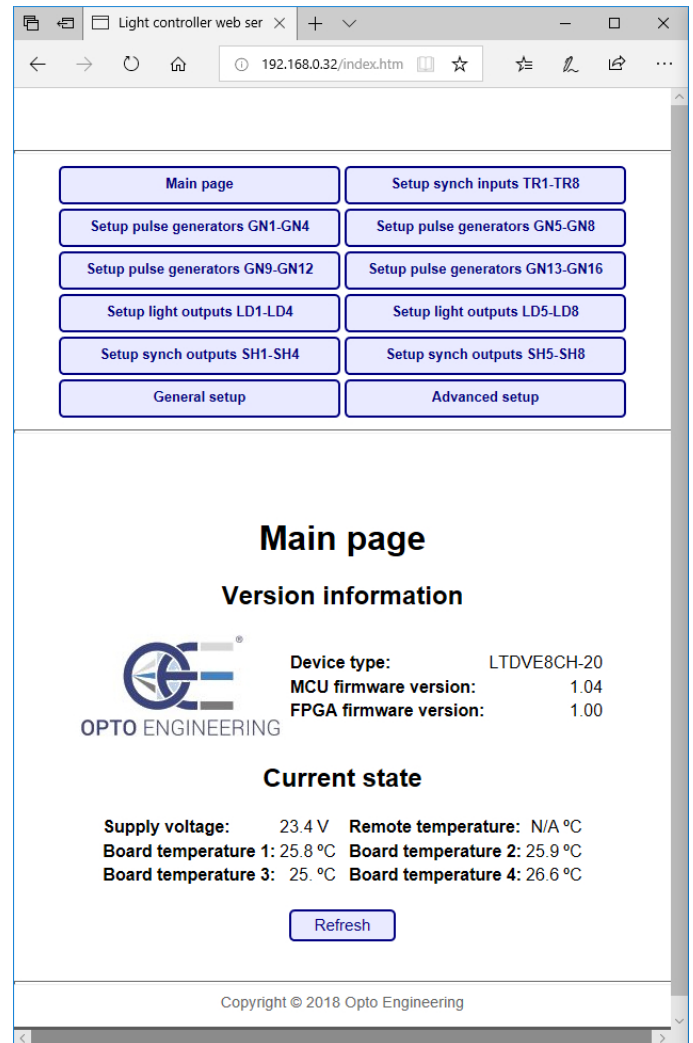
Opto Engineering® LTDVE series of controllers can be configured via Ethernet or RS485.

With the Ethernet interface, you can configure the controller with either the Modbus/TCP slave protocol or the internal web browser. The second option allows for a very easy configuration of the controller using a common web browser to visually change the parameters and/or inspect the device status.

- Easily set the output current intensity of each connected illuminator in small steps
- Set the pulse duration and pulse delay of each illuminator in small steps as low as 1µs
- Control the connected illuminators with up to 8 synchronization inputs
- Control up to 8 synchronization outputs (e.g. up to 8 cameras)
- Write and save different configurations depending on your application

The LTDVE series can also be configured via the RS485 communication port interface that implements the Modbus/RTU slave protocol.

The configuration is stored in a non-volatile memory to maintain your settings even when the Ethernet or RS485 connection is removed.



Main page of LTDVE configuration software via browser