



LTDVE4CH-20 | DATASHEET

LED Strobe controller 4 channels, 20A pulsed - 2A continuous



KEY ADVANTAGES

- Industrial design with opto-isolated I/O signals
- High-precision LED strobe control with configurable timing
- Wide interface compatibility for integration into PC and PLC systems*
- Up to 8 independently controlled output channels
- High output currents with options for intensive LED loads
- Integrated thermal overload protection*

*available on some models



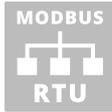
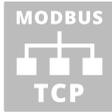
Opto Engineering® range of strobe controllers offers repeatable fast pulsing for quick and accurate strobing of a wide variety of LED lightings.

SPECIFICATIONS

Electrical specifications

Output channels		4
Max continuous current	(A)	2
Max pulse current	(A)	20
Max pulse voltage ¹	(V)	46
Max dissipable thermal power per channel	(W)	4
Pulse delay ²	(µs)	0 - 1 000 000
Pulse width ²	(µs)	10 - 1 000 000
Pulse delay repeatability	(µs)	0.1
Pulse width repeatability	(µs)	0.1
Power supply ³	(V)	24-48
Data Interface	Ethernet 10/100 Mbit RS485	
Communication protocol	Modbus TCP Modbus RTU	
I/O interface	4x opto-isolated input 4x opto-isolated output	

KEY FEATURES

 24-48 V	 AUTO CURRENT REDUCTION	 CURRENT CALIBRATION
 ETHERNET 10-100	 MODBUS RTU	 MODBUS TCP
 NTC	 OPTO ISOLATED I/O	 THERMAL OVERLOAD PROTECTION

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.

Mechanical specifications

Width ⁴	(mm)	135
Length ⁴	(mm)	195
Height ⁴	(mm)	75
Mass	(g)	1200
Mounting	DIN rail	

¹ Maximum output voltage depends on the output current. Higher current draw lowers the maximum output voltage.

² In variable resolution depending on selected value.

³ ± 10%.

⁴ Including DIN rail where available on the product.

Environment Specification

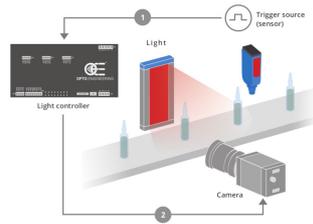
Operating temperature	(°C)	0-40
Storage temperature	(°C)	0-50
Operating relative humidity	(%)	20-85, non condensing
IP rating	IP20	
Installation	Indoor use only	

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.

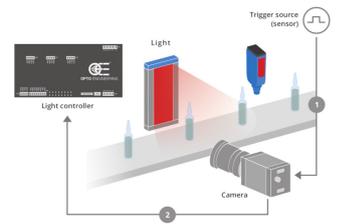
CONTROLLER TRIGGERS CAMERA

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.

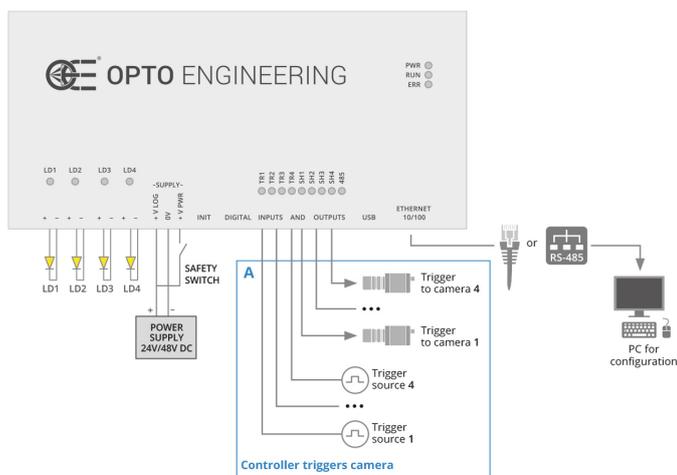


CAMERA TRIGGERS CONTROLLER

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.

EASY CONFIGURATION

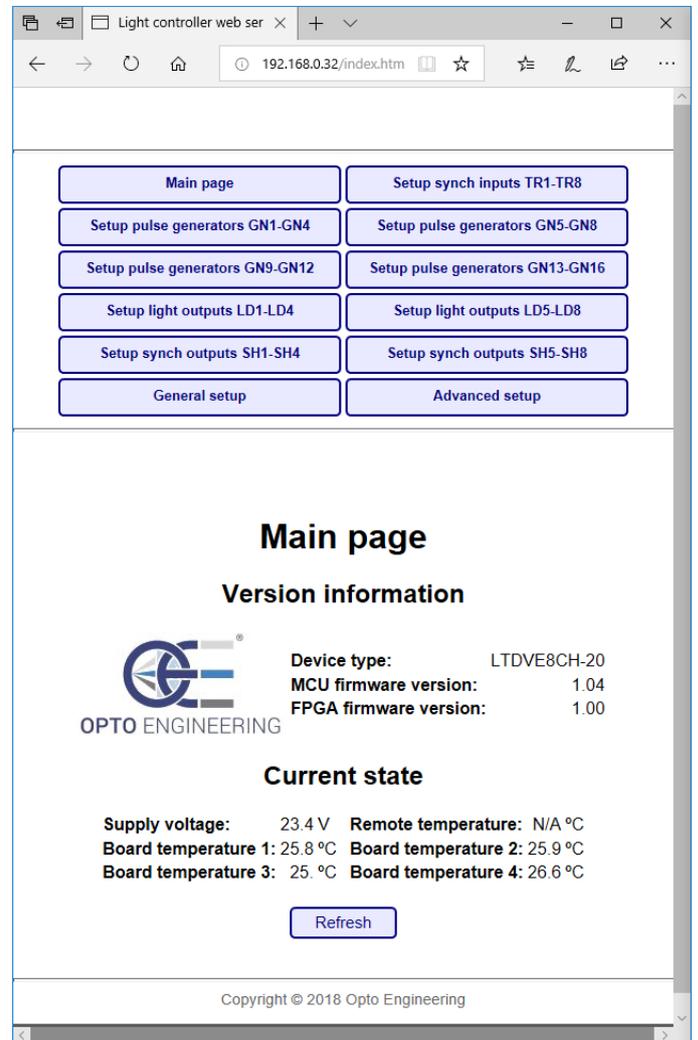
Opto Engineering® LTDVE series of controllers can be configured via Ethernet or RS485.

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