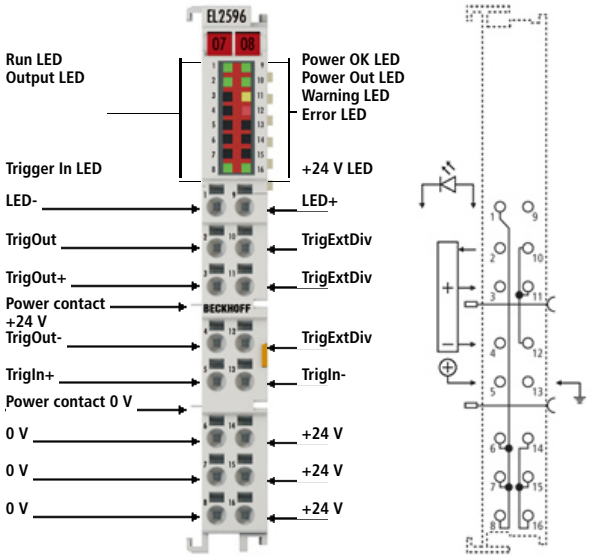

EL2596 | 1-channel LED strobe control terminals

The LED driver terminals from the EL2596 series contain a flexible power supply unit that supplies the LED with the required voltage and current. The terminals support applications from constant lighting to short light pulses in the kHz range. Each individual flash can be triggered in a controlled manner by the control system via the distributed clocks/timestamp function. The EL2596-xxxx terminals also feature a trigger output for camera triggering as well as high-end fast voltage and current control, e.g. for providing line scan cameras with constant illumination. Extensive real-time diagnostics, e.g. for input current/voltage and output current/voltage allow detailed monitoring of the LED light intensity. Thus, overdrive applications with short high-current pulses through the LED are possible. If a given load corridor is left, which can be defined e.g. by means of load errors, the EL259x switches off to protect the LED. Subsequent reset is possible.

Technical data	EL2596
Recommended use	standard terminal for illumination in vision applications up to 24 V DC
Connection technology	2-wire
Number of outputs	1
Input voltage	24 V DC (-15 %/+20 %)
Load type	ohmic (LED)
Distributed clocks	yes
Distributed clock precision	<< 1 µs
Output voltage	0…(U_{IN} - 2 V)
Max. output current	0…3 A (depending on output current and DutyCycle)
Switching times	typ. T_{ON}: < 1 µs, typ. T_{OFF}: < 1 µs, pulses from 50 µs
Triggeroutput (to camera)	1 (electrically isolated, max. 10 mA push-pull, 5…24 V DC)
Trigger input (from camera)	1 (electrically isolated, typ. 3 mA, 5…24 V DC, switchable sensitivity)
Current consumption E-bus	typ. 180 mA
Electrical isolation	500 V (E-bus/field potential)
Current consumption power contacts	–
Special features	constant voltage, constant current and PWM as available operating modes; extensive real-time diagnostics; connection option voltage divider TriggerOut; continuous LED operation possible
Weight	approx. 55 g
Operating/storage temperature	0…+55 °C/-25…+85 °C
Relative humidity	95 %, no condensation
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Protect. class/installation pos.	IP 20/variable
Approvals	CE

Product announcement	estimated market release 2nd quarter 2019