

SELV IP20 

TALEXconverter LCI 4x16 W 200 – 400 mA Ip  
TOP series

## Product description

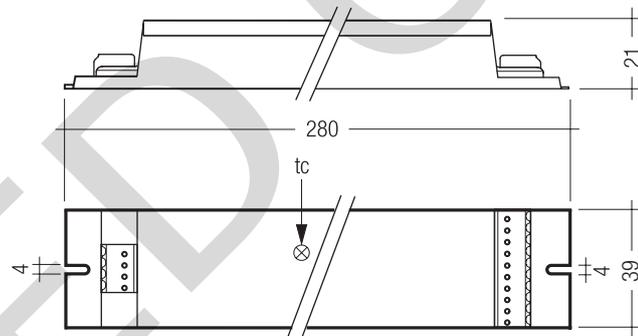
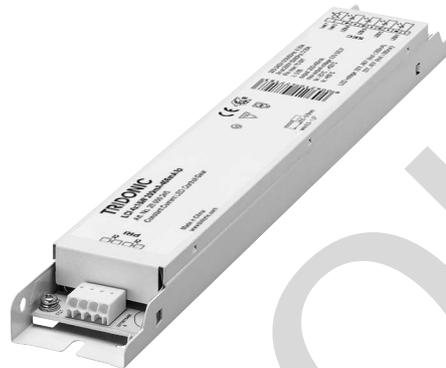
- Built-in LED control gear for LED
- Constant current LED control gear with 200 – 400 mA output current
- 1- to 4-channel operation
- Max. output power 67.2 W
- SELV
- Nominal life-time of 50,000 h (at ta 50 °C with a failure rate max. 0.2 % per 1,000 h)
- 5-year guarantee

## Properties

- Low-profile metal casing with white cover
- Type of protection IP20

## Functions

- Overload protection
- Short circuit proof
- Suitable for emergency lighting units acc. to EN 50172



Standards, page 4

## Technical data

Rated supply voltage	220 – 240 V
AC Voltage range	198 – 264 V
DC Voltage range	176 – 280 V
Mains frequency	0 / 50 / 60 Hz
Typ. rated current (at 230 V / 50 Hz / full load)	0.35 A
Mains current (at 220 V / 0 Hz / full load)	0.35 A
Max. input power	75.8 W
Typ. efficiency (at 230 V / 50 Hz / full load)	> 85 %
Typ. $\lambda$ (at 230 V / 50 Hz / full load)	0.95
Output current tolerance	$\pm 10$ %
Output current ripple	$\pm 10$ %
Max. output current peak	473 mA
Switch-on time	0.5 s
Ambient temperature ta	-25 ... +50 °C
Max. casing temperature tc	85 °C
Dimensions LxWxH	280 x 39 x 21 mm
Hole spacing D	270 mm

## Ordering data

Type	Article number	Packaging carton	Packaging pallet	Weight per pc.
LCI 4x16W 200mA-400mA Ip	28000245	10 pc(s).	540 pc(s).	0.24 kg

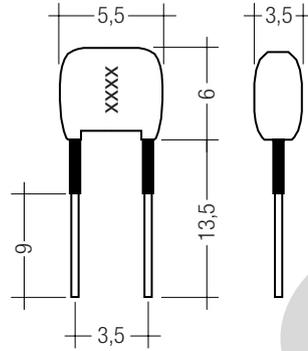
## Specific technical data

Type	Output current range	Output voltage range		Max. output voltage <sup>Ⓢ</sup>	Typ. output power range
		I ≤ 350 mA	I > 350 mA		
LCI 4x16W 200mA-400mA Ip	200 – 400 mA	22 – 48 V	22 – 42 V	56 V	10.0 – 67.2 W

<sup>Ⓢ</sup> In no-load operation.

### Product description

- Ready-for-use resistor to set output current value
- Resistor is base isolated
- Resistor power 0.25 W
- Resistor value tolerance  $\pm 1\%$



### Ordering data

Type	Article number	Colour	Marking	Resistor value	Packaging bag	Weight per pc.
CURRENT PLUG 4x16 250mA	28000574	Pink	0250	43.2 k $\Omega$	10 pc(s).	0.001 kg
CURRENT PLUG 4x16 300mA	28000359	Pink	0300	110.0 k $\Omega$	10 pc(s).	0.001 kg
CURRENT PLUG 4x16 350mA	28000360	Pink	0350	309.0 k $\Omega$	10 pc(s).	0.001 kg

### Standards

EN 55015  
EN 61000-3-2  
EN 61000-3-3  
EN 61347-1  
EN 61347-2-13  
EN 61547  
EN 62384

### Overload protection / underload protection

If the output voltage range is exceeded the LED control gear turns off the LED output and tries a restart every 6 seconds.

### Short-circuit behaviour

In case of a short circuit on the secondary side (LED) the LED output is switched off. Every 6 seconds the LED control gear tries to restart.

### No-load operation

The LED control gear will not be damaged in the no-load operation and will supply constantly 56 V.

### Operation on DC voltage

The LED control gear is designed for operation with DC voltage and pulsed DC voltage.

Light output level in DC operation: 100 %

### Maximum loading of automatic circuit breakers

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current	
Installation Ø	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>	I <sub>max</sub>	Time
LCI 4x16W 200mA-400mA Ip	24	32	39	49	24	32	39	49	85 A	12 µs

### Harmonic distortion in the mains supply (at 230 V/50 Hz and full load) in %

	THD	3.	5.	7.	9.	11.
LCI 4x16W 200mA-400mA Ip	< 10	3.2	2.3	2.7	2.6	2.3

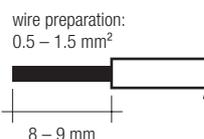
### Wiring guidelines

- The secondary cables should be run separately from the mains connections and mains cables to ensure good EMC conditions
- The LED wiring should be kept as short as possible to ensure good EMC. The recommended secondary cable length is max. 2 m.
- The converter does not have polarity reversal protection on the secondary side. LED modules that do not have polarity reversal protection may be damaged if polarity is reversed.

### Installation instructions

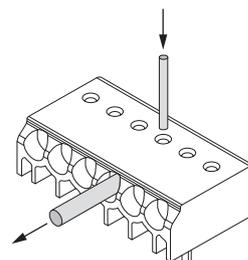
#### Wiring type and cross section

Solid wire with a cross section of 0.5–1.5 mm<sup>2</sup>. Strip 8–9 mm of insulation from the cables to ensure perfect operation of terminals.



#### Release of the wiring

Loosen wire through twisting and pulling or using a Ø 1 mm release tool.



### Temperature range

The LED control gear life duration is related to the ambient temperature  $t_a$ . The relation of  $t_c$  to  $t_a$  temperature depends also on the luminaire design. If the measured  $t_c$  temperature is approx. 5 K below  $t_c$  max. or higher,  $t_a$  temperature should be checked and eventually critical components (e.g. ELCAP) measured. Detailed information on request.

The LED control gear is designed for an average life-time of 50,000 (at  $t_a$  for  $\geq 50.000$  h) hours under reference conditions and with a failure probability of less than 10 %. This corresponds to an average failure rate of 0.2 % for every 1,000 hours of operation.

LED's have to be connected as shown at the circuit diagram to work properly. The minimum power load has to be connected. Otherwise the converter will switch off. Connect a resistor between I sel 1 und I sel 2 to reduce output current for all 4 channels. Tabel below shows relationship between output current and resistor value. Resistor values come from the standardised E96 resistor value range. Min. resistor power is 0.1 W.

Output current in mA	Resistor in k $\Omega$
200	9.76
220	21.00
240	34.80
250	43.20
260	51.10
280	76.80
300	110.00
320	158.00
340	243.00
350	309.00
360	402.00
380	909.00
400	open

### Isolation and electric strength testing of luminaires

Electronic devices can be damaged by high voltage. This has to be considered during the routine testing of the luminaires in production.

According to IEC 60598-1 Annex Q (informative only!) or ENEC 303-Annex A, each luminaire should be submitted to an isolation test with 500 V<sub>DC</sub> for 1 second. This test voltage should be connected between the interconnected phase and neutral terminals and the earth terminal. The isolation resistance must be at least 2 M $\Omega$ .

As an alternative, IEC 60598-1 Annex Q describes a test of the electrical strength with 1500 V<sub>AC</sub> (or 1.414 x 1500 V<sub>DC</sub>). To avoid damage to the electronic devices this test must not be conducted.

### Additional information

Additional technical information at [www.tridonic.com](http://www.tridonic.com) → Technical Data

Guarantee conditions at [www.tridonic.com](http://www.tridonic.com) → Services

No warranty if device was opened.

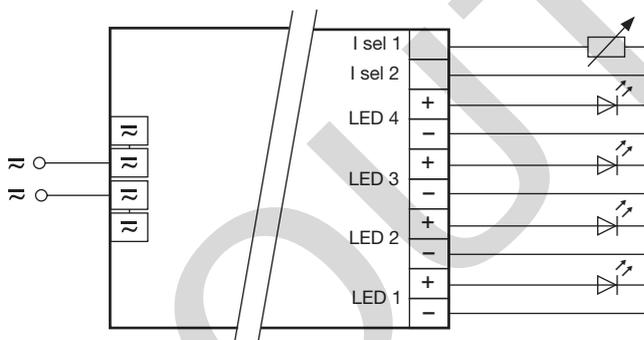
### Expected life-time

Type	$t_a$	40 °C	50 °C	60 °C
LCI 4x16W 200mA-400mA Ip	$t_c$	67 °C	74 °C	83 °C
	Life-time	80,000 h	50,000 h	25,000 h

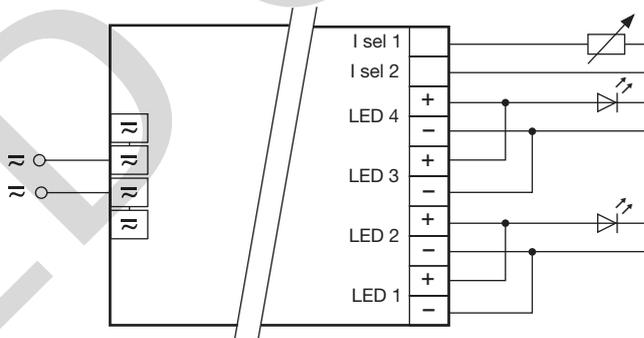
x = not permitted

### Circuit diagrams

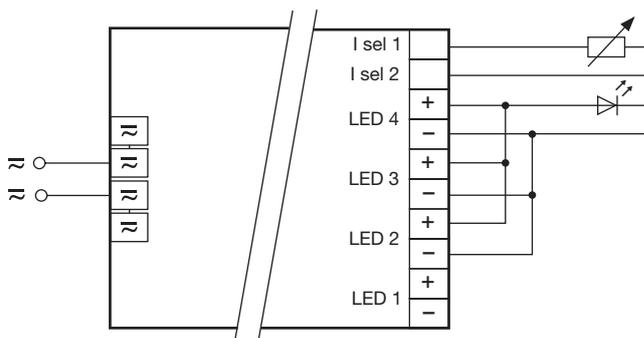
4 channel operation (max. output current 400 mA)



Parallel circuit of 2 channels each (max. output current 800 mA)



Parallel circuit of 3 channels (max. output current 1,200 mA)



Parallel circuit of 4 channels (max. output current 1,600 mA)

