



### PC BASIC sl, 8 W PC BASIC

#### Product description

- CELMA Energy Efficiency Index A2
- Nominal life-time up to 50,000 h (at max.  $t_a$  with a failure rate max. 0.2 % per 1,000 h)
- Large temperature range (for values see table)
- Automatic start after replacement of defective lamps
- Safety shutdown of defective lamps and at end of life
- For emergency lighting systems as per EN 50172
- Temperature protection as per EN 61347-2-3 C5e

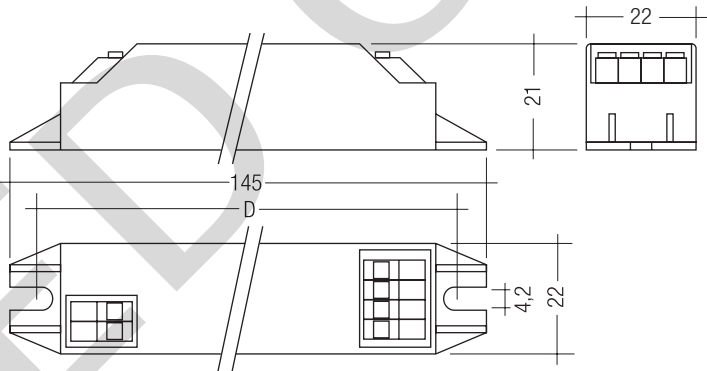
#### Technical data

AC voltage range	198 – 264 V
DC voltage range	176 – 264 V (Lamp start $\geq$ 198 V DC)
Overvoltage protection	270 V AC, 360 h
Defined warm start	$\leq$ 1 s
Operating frequency	$\geq$ 40 kHz
Type of protection	IP20



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#### Ordering data

Type	Article number	Packaging carton	Packaging low volume	Packaging high volume	Weight per pc.
<b>For luminaires with 1 lamp</b>					
PC 1x8 W BASIC sl	22176026	25 pc(s).	1,150 pc(s).	8,050 pc(s).	0.044 kg

#### Specific technical data

Lamp wattage	Lamp type	Type	Article number	Dimensions L x W x H	Hole spacing D	Lamp power	Circuit power	EEI	Current at 50 Hz		$\lambda$ at 50 Hz		tc point max.	Ambient temperature $t_a$
									220 V	240 V	220 V	240 V		
<b>For luminaires with 1 lamp</b>														
1 x 8 W	T5	PC 1x8 W BASIC sl	22176026	145 x 22 x 21 mm	136 mm	6.8 W	8.7 W	A2	0.075 A	0.071 A	0.53	0.51	80 °C	-25 ... 60 °C

### Standards

EN 55015  
 EN 60929  
 EN 61000-3-2  
 EN 61347-2-3  
 EN 61347-2-4  
 EN 61547  
 according to EN 50172

### Glow-wire test

according to EN 60598-1 with increased temperature of 960 °C passed.

### AC operation

Mains voltage:  
 220–240 V 50/60 Hz  
 198–264 V 50/60 Hz including safety tolerance ( $\pm 10\%$ )  
 202–254 V 50/60 Hz including performance tolerance (+6% / -8%)

Min. lamp starting temperature -25 °C

### DC operation

220–240 V<sub>DC</sub>  
 198–264 V<sub>DC</sub> certain lamp start  
 176–264 V<sub>DC</sub> operating possible

Min. lamp starting temperature -25 °C

With a DC supply L and N terminals are interchangeable.

### Emergency lighting

Use in emergency lighting installations according to EN 50172 or for emergency luminaires according to EN 61347-2-3 appendix J.

Instant start after mains interruption < 0.5 s  
 EBLF  $\geq$  0.5

### Abnormal operation protection

All ballasts are equipped with a protection circuit against abnormal operation. The circuit is used to shut down the ballast if the lamp fails to strike, or if the lamp is defect.

The ballast can be restarted after shut down by turning off the supply for 10 seconds or by replacing the lamp.

### Ingress protection

IP 20 for boxed versions

### Protection class

The ballasts are suitable for use in class I or class II luminaires.

### Energy class CELMA EEI = A2<sup>1)</sup>

<sup>1)</sup> according to the EU directives on ecodesign requirements (EC) No. 245/2009 and (EC) No. 347/2010

### Maximum loading of automatic circuit breakers

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20
Installation $\emptyset$	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>
<b>PC 1x8 W Basic sl</b>	138	179	221	276	80	179	221	276

Max. load per MCB at supply voltage U<sub>n</sub> = 230 V

### Harmonic distortion in the mains supply

EMC standard EN 61000-3-2 for lighting equipment with active input power  $\leq$  25 W.

All ballasts comply with the standard EN 61000-3-2 to operate lighting equipment with an active input power  $\leq$  25 W where distortion limits for current drawn from the supply are 86 % for 3<sup>rd</sup> harmonic and 61 % for 5<sup>th</sup> harmonic only.

### Mains currents in DC operation

Type	Lamp type	Wattage	mains current at	
			U <sub>n</sub> = 220 V <sub>DC</sub>	U <sub>n</sub> = 240 V <sub>DC</sub>
<b>PC 1x8 W BASIC</b>	T5	1x8 W	39 mA	35 mA

### Remark

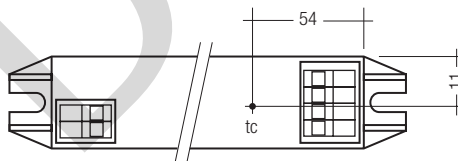
The EMC standard applies to the luminaire and reflects the specific properties of each fitting whether single or multi-lamp.

### Ballast lumen factor

BLF = 1.00 (at 230 V 50 Hz)

### Temperature range

from -25 °C to +50 °C



Humidity: 5 % up to max. 85 %, not condensed (max. 56 days/year at 85 %)

Storage temperature: -40 °C up to max. +80 °C

The devices have to be within the specified temperature range (ta) before they can be operated.

### Expected life-time

Type	Lamp type	Lamp power	ta	40 °C	50 °C	55 °C	60 °C
<b>PC 1x8 W BASIC sl</b>	T5	1x8 W	tc	60 °C	70 °C	75 °C	80 °C
			Life-time	> 100,000 h	100,000 h	70,000 h	50,000 h

x = not permitted

### Wiring advice

The lead length is dependent on the capacitance of the cable.

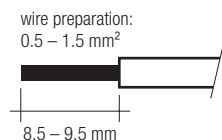
Ballast	Terminal	Maximum capacitance allowed		
		Cold	Hot	Cold
PC 1x83 W Basic sl	1, 2	3, 4	120 pF	60 pF

To avoid the damage of the control gear, the wiring must be protected against short circuits to earth (sharp edged metal parts, metal cable clips, louver, etc.)

### Installation instructions

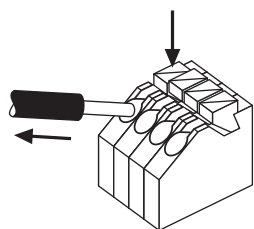
#### Wiring type and cross section

The wiring can be in stranded wires with ferrules or solid with a cross section of 0.5–1.5 mm<sup>2</sup>. Strip 9.5 mm of insulation from the cables to ensure perfect operation of push-wire terminals.



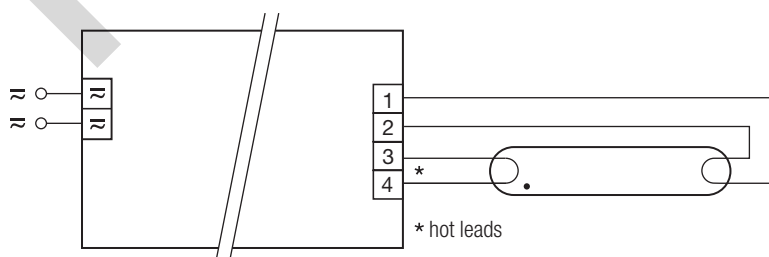
#### Release of the wiring

Press down the “push button” and remove the cable from front.



Ballasts are not suitable for any kind of dimming applications.

### Wiring diagram



\* leads 3, 4 max. 0.5 m (< 60 pF)  
leads 1, 2 max. 1.0 m (< 120 pF)

With standard solid wire 0.5/0.75 mm<sup>2</sup> the capacitance of the lead is 80 pF/m. This value is influenced by the way the wiring is made. In borderline cases the capacitance must be measured inside the luminaire. Lamp connection should be as short as possible and be made with symmetrical wiring.

### RFI

Tridonic ballasts are RFI protected in accordance with EN 55015. To operate the luminaire correctly and to minimise RFI we recommend the following instructions:

- Connection to the lamps must be kept as short as possible
- Mains leads should be kept apart from lamp leads (ideally 5 – 10 cm distance)
- Do not lead mains leads too closely along the electronic ballast
- Keep the distance of lamp leads from the metal work as large as possible
- Mains wiring to be twisted when through wiring
- Keep the mains leads inside the luminaire as short as possible

### 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 MΩ.

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.