

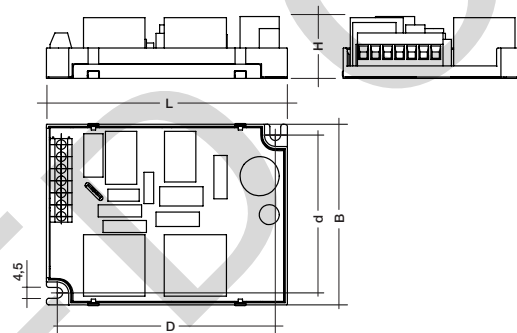
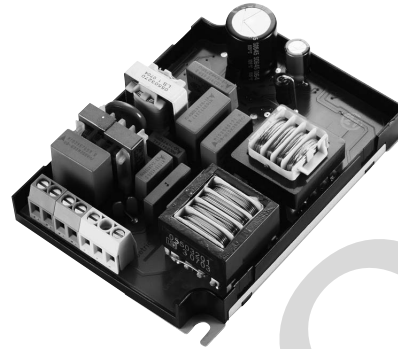


## PCI B011 pcb Single

PCI PRO, built-in applications

### Product description

- For metal halide lamps
- Also for mobile luminaires with connectors
- Pulse packets for increased ignition energy (pulseCONTROL technology)
- With patented circuit elements
- Flicker-free light
- Colour stability thanks to constant power
- Guaranteed long life
- No acoustic resonance
- Safety shutdown if a lamp is faulty or missing
- Greatly reduced reignition time
- Hardly any EMC interference in the ignition phase
- Automatic shutdown on overheating
- Lower section of casing made of steel
- Screw terminals:  $\leq 1.5 \text{ mm}^2$  for stranded wire,  $\leq 2.5 \text{ mm}^2$  for solid wire



### Technical data

Mains voltage range	220 – 240 V
AC voltage range	198 – 254 V
DC voltage range	153 – 320 V
Mains frequency	0 / 50 / 60 Hz
Max. ignition voltage	5 kVp
Operating frequency	145 Hz
Type of protection	IP00

### Ordering data

Type	Article number	Packaging, carton <sup>Ⓞ</sup>	Packaging, pallet	Weight per pcs.
<b>For luminaires with 1 lamp</b>				
PCI 0035 pcb B011	86458250	15 pieces	600 pieces	0.145 kg



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Wiring diagrams and installation examples, page 2

### Specific technical data

Lamp wattage	Lamp type	Type	Article number	Dimensions L x W x H	Lamp power	Circuit power <sup>Ⓜ</sup>	EEL	Efficiency	Current at 50 Hz 230 V	$\lambda$ at 50 Hz 230 V	Max. cable length to lamp	tc point max. (C5)	Ambient temperature $t_a$
<b>For luminaires with 1 lamp</b>													
1 x 35 W	HI	PCI 0035 pcb B011	86458250	90 x 60 x 28 mm	39 W	44.5 W	A2	> 87 %	0.2 A	0.97	1.5 m / 120 pF	90 °C	-25 ... +50 °C

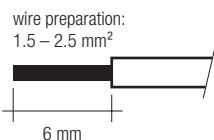
<sup>Ⓞ</sup> Single packed in ESD bag.

<sup>Ⓜ</sup> At  $t_a = 25 \text{ °C}$ .

## Installation instructions

### Wiring type and cross section

Stranded wire with end ferrule with a cross section of 1.5 mm<sup>2</sup> or solid wire up to 2.5 mm<sup>2</sup> may be used for wiring. Strip 6 mm of insulation from the cables to ensure perfect operation of the screw terminals.

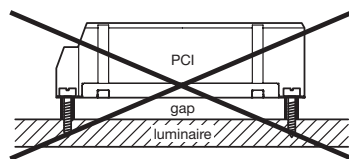
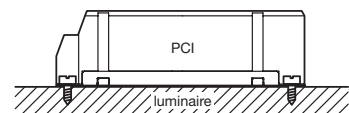


### Fastening

Max. torque 0.5 Nm

### Mounting recommendation

To ensure optimum heat removal the ECG should be mounted on a metal plate (luminaire body) No insulators between the ECG and the the cooling surface (air, adhesive tape, etc.). Finally important remains the temperature measurement.



If several ballasts are installed in masts, boxes, etc., measures must be taken to avoid overheating of individual components.

### Standards

EN 55015 (radio interference)  
EN 61000-3-2 (mains harmonics)  
EN 61347-2-12  
EN 61547 (interference immunity)  
CE mark

### Ballast lumen factor (EN 60929 8.1)

Type	AC/DC-BLF at U = 198–254 V, 25 °C
PCI 0035	1.00

## Assembly notes

If you are using tools to install the unit or carrying out any work on the luminaire you should take extra care because the casing does not provide the unit with any protection.



### EOS/ESD safety guidelines

The device / module contains components that are sensitive to electrostatic discharge and may only be installed in the factory and on site if appropriate EOS/ESD protection measures have been taken. No special measures need be taken for devices/modules with enclosed casings (contact with the pc board not possible), just normal installation practice. Please note the requirements set out in the document EOS / ESD guidelines (Guideline\_EOS\_ESD.pdf) at: <http://www.tridonic.com/com/en/technical-docs.asp>

### Radio interference

- Do not cross mains and lamp cables.
- Do not lay mains cables together with lamp cables (ideally they should be 5–10 cm apart).
- Do not lead mains cables too closely along the electronic ballast.
- Twist lamp cables.
- Increase the distance between lamp cables and earthed metal surfaces.
- Keep the mains cable in the luminaire short.
- Parallel runs (x) of mains and lamp cables must be kept as short as possible.

### Important advise

Always switch off at the mains before changing the lamp.

### Warning – starting voltage up to max. 5 kV!

Not suitable for use with lamps with integral ignitors.

### Note on wiring

The length of the lamp wires is limited by the value of cable capacitance. The maximum of 120 pF would enable connection of approximately 1.5 metres of lamp wire.

In class 1 luminaires it is necessary to earth the ballast and the luminaire via the earth terminal, in class 2 luminaires not.

Do not route wiring on or alongside ECGs as certain components may be at high temperatures (see temperature matrix, page 3).

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.).

## Safety switch off

### End of life of the lamps

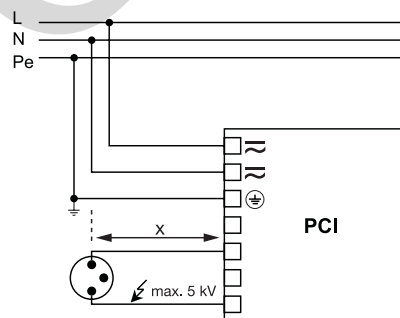
At the end of their useful life, lamps often cycle on/off. The PCI ballast recognises this condition and switches off the lamp, after three complete on/off cycles and whilst the supply has been unswitched. Complete lamp switch off enables easy identification of a defective lamp in the application. After a change of the faulty lamp and an interruption of the mains supply (mains reset) the ballast will strike the lamp. When there is no lamp in circuit or a defective lamp is connected to the ballast, the ballast will switch off after apr. 25 minutes (3.5 minutes of ignition time).

### Overtemperature shutdown

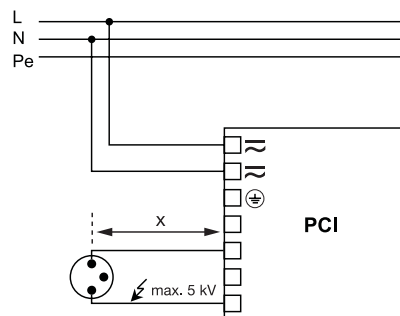
The units shut down at  $\Delta t$  approx. +10 °C compared with  $t_c/t_a$ . A mains reset must be carried out so that the units switch on again.

### Overload strength

320 V<sub>ac</sub> / 1 h



Circuit diagram PCI class 1 application



Circuit diagram PCI class 2 application

### Harmonic distortion in the mains supply

Ballast type	THD	3	5	7	9	11
PCI 0035 pcb	7.2	3.9	3.8	2.4	3.0	1.7

### Loading of automatic circuit breakers

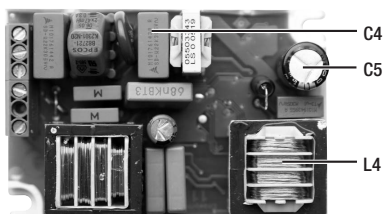
Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20
Installation $\varnothing$	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>
PCI 0035 pcb	30	40	50	60	15	20	25	30

### Temperature of the board version

It is the responsibility of the casing/luminaire manufacturer to ensure that the PCI 0035 pcb B011 is protected against dust and moisture and that users cannot come into contact with any live components (including when they are changing lamps).

Make sure that the maximum operating temperature of the components is not exceeded. The relevant values are shown in the tables alongside. The measurement reference points for the components are shown in the diagrams entitled "Temperature measuring points".

### Temperature measuring points 35 W



### Max. component temperatures 35 W

Lifespan for 0.2 % failure after 1000 hours

Component	40,000 h	50,000 h
C4	100 °C	100 °C
C5	90 °C	85 °C
L4	100 °C	100 °C