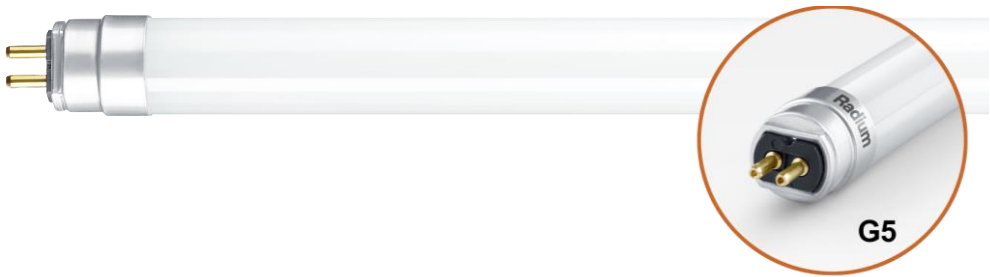




**Radium**  
Die Lichtmarke



# Conversion Guide. **Radium LED T5 Neo®.**

# Radium LED T5 Neo®.

## General Instructions for Conversion.

The LED T5 Neo® lamps are a safe replacement for T5 fluorescent lamps with two-pin bases G5. It is not permitted to connect the LED T5 Neo® directly to mains voltage (220-240 V) or HF control gear (ECG).

The ECG ballast must be replaced with a suitable constant current LED driver by a qualified electrician.

An overview of compatible Radium LED drivers can be found [here](#).



The conversion to LED T5 Neo® offers many advantages over simple retrofit or other conversion lamps – and is now also legally protected by a white paper from ZVEI<sup>1</sup>, as this does not usually involve a significant change to the luminaire.

Before converting, the suitability of the luminaire or system must be checked; [checklists](#) are available for this purpose.

The LED T5 Neo® can not just be used in a more versatile way, but they also offer safety-related advantages such as operation with protective extra-low voltage and protective mechanisms in the LED driver such as short-circuit protection and overtemperature protection. They can be dimmed when operated with DALI LED drivers, and can also be used with Radium LED drivers in DC power systems. The luminous flux can be pre-set via the operating current using small switches – so-called dip switches – on the LED drivers. With the maximum current, the luminous flux of the LED T5 Neo® is at the level of a comparable fluorescent lamp.

**The suitability of the luminaire(s) must always be checked before conversion.** Relevant tests for the operational safety of the luminaire can be taken, verified and documented by the installer from the [checklist](#) provided by Radium in accordance with EN 60598-1 Appendix Q.

**The safety of the lamps is declared according to EN 62776:2015 and that of the LED drivers according to EN 61347-1:2015 by Radium (see declaration of conformity). This also includes compliance with the EMC guidelines according to EN 55015:2019, which has been determined for the combination of Radium LED T5 Neo® lamps and Radium LED driver.**

The conformity of the converted luminaire does not need to be re-declared after proper conversion by a qualified electrician; the CE mark remains valid.

<sup>1</sup> Umrüsten von Leuchten – White Paper, Verband der Elektro- und Digitalindustrie, published 2024  
Conversion of Luminaires, by Association of German Electrical and Digital Industry  
In German only; will be available in English soon

# Radium LED T5 Neo®.

## General Instructions for Conversion.

The replacement of the control gear and the lamps must be carried out according to the following installation instructions.

To protect the LED T5 Neo® lamps, it is essential that they are disconnected from the power source during the conversion.

Wire the fixture according to the wiring diagram on page 5 which applies to your luminaire. Unnecessary parts (such as capacitor or cables) must be removed or insulated. The existing ECG must be replaced with a suitable constant current LED driver.

The LED T5 Neo® is polarity neutral, which allows it to be used in any direction in the standardized G5 lamp holder. As a rule, the existing cables can be re-used. The LED driver has a ground connection, this connection must be made via the grounding of the luminaire housing or via direct wiring to the connection terminal.

# Radium LED T5 Neo®.

## Conversion Guide.

**Warning:** Rewiring by qualified personnel only.

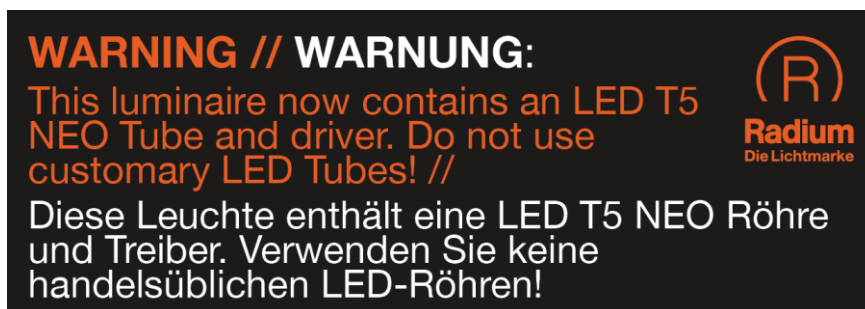
- Ensure that the luminaire is de-connected (!, see p.3)
- Remove conventional fluorescent lamp
- Disconnect the electronic control gear (ECG)
- Install the constant current LED driver
- Connect the luminaire according to the circuit diagram (Figure 1, 2, 3 or 4)
- Remove existing and unused cables or insulate the ends

**Note:** All existing components that continue to be used (terminals, cables, lamp holders) must be checked for safety/functionality and replaced if necessary.

- Provide converted luminaire with additional marking (CE and type plate remain valid): Attach the enclosed sticker, which specifies that only LED T5 Neo® lamps should be used, not far from the lamp holders.
- Insert LED T5 Neo® lamp(s) into lamp holder(s)
- Perform visual inspections using the checklist (see page 5)
- Perform measurements using the checklist

**Note:** Fluorescent lamps or LED retrofit lamps should no longer be used. If the wrong lamps are used, however, there is no danger to the user and the lamps are usually not destroyed.

- After completion of all conversions, the checklist must be completed and signed.
- The completed checklist documents the proper execution of the conversion.



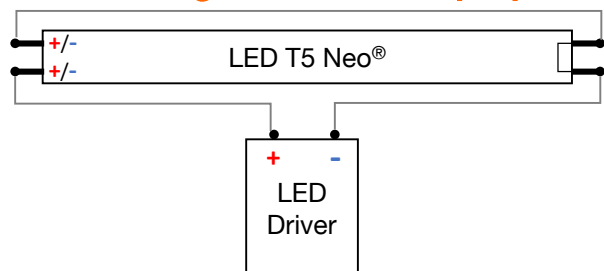
enclosed sticker for the luminaire

other languages on request

# Radium LED T5 Neo®.

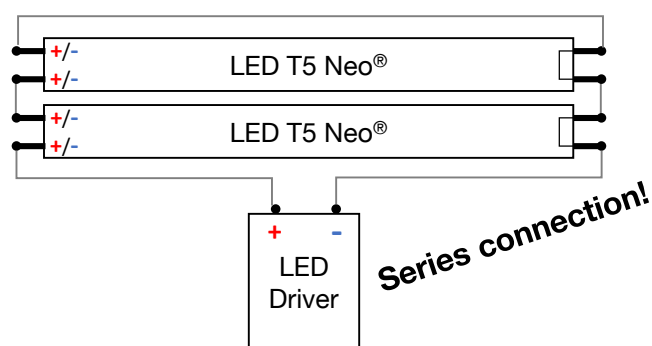
## Conversion Guide.

### Circuit diagram for 1-lamp operation (Figure 1)



Lamp	Driver DIM	Driver Non-DIM
LED T5 Neo® 14/24	OTDA4030	OTNA4435
LED T5 Neo® 21/39	OTDA4439	OTNA4435
LED T5 Neo® 28/54	OTDA4439	OTNA4436
LED T5 Neo® 35/49	OTDA4439	OTNA4436
LED T5 Neo® 49/80	OTDA4439	OTNA4436

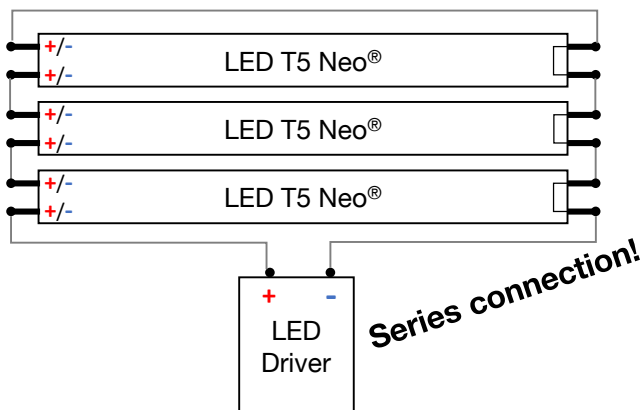
### Circuit diagram for 2-lamps operation (Figure 2)



Lamp	Driver DIM	Driver Non-DIM
2x LED T5 Neo® 14/24	OTDA4439	OTNA4435
2x LED T5 Neo® 21/39	OTDA4439	OTNA4436
2x LED T5 Neo® 28/54	OTDA4439 <sup>1)</sup>	OTNA4437
2x LED T5 Neo® 35/49	OTDA4439 <sup>1)</sup>	OTNA4437
2x LED T5 Neo® 49/80	OTDA4441	OTNA4438

<sup>1)</sup> From a current of 300 mA, the 75W driver OTDA4441 is required.

### Circuit diagram for 3-lamps operation (Figure 3)

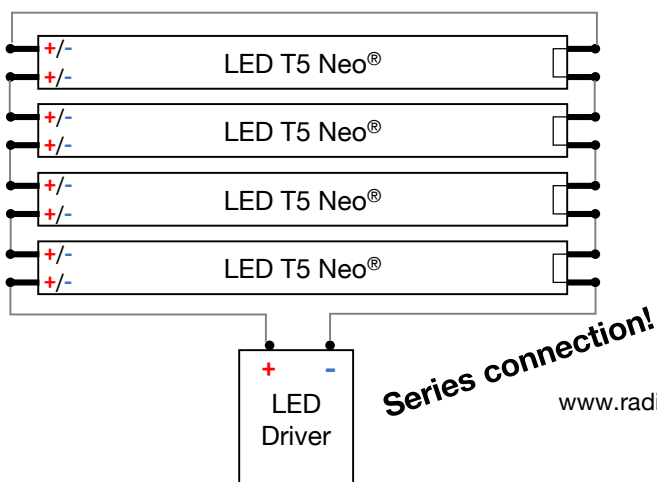


#### Recommended Combination Lamp – Driver

Lamp	Driver DIM	Driver Non-DIM
3x LED T5 Neo® 14/24	OTDA4439	OTNA4436
3x LED T5 Neo® 21/39	OTDA4439 <sup>2)</sup>	OTNA4437
3x LED T5 Neo® 28/54	OTDA4441	OTNA4438
3x LED T5 Neo® 35/49	OTDA4441	OTNA4438

<sup>2)</sup> From a current of 250 mA, the 75W driver OTDA4441 is required.

### Circuit diagram for 4-lamps operation (Figure 4)



Lamp	Driver DIM	Driver Non-DIM
4x LED T5 Neo® 14/24	OTDA4439 <sup>3)</sup>	OTNA4436
4x LED T5 Neo® 21/39	OTDA4441	OTNA4438

<sup>3)</sup> From a current of 350 mA, the 75W driver OTDA4441 is required.

Scan QR code and  
download **conversion checklist**.  
[www.radium.de/en/checklist-luminaire-conversion-t5](http://www.radium.de/en/checklist-luminaire-conversion-t5)





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