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POWERTRONIC PTo – Outdoor ECG



Introduction

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The PTo family inside POWERTRONIC

The PTo products are electronic ballasts for High Pressure Discharge lamps. The ballasts were mainly developed for street and outdoor luminaire but can be also used for high bay luminaire in the industry.



Agenda

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1. PTo family
2. 3DIM concept (Dali, StepDIM and AstroDIM)
3. 3DIM Software Tool

PTo family

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3DIM DALI
StepDIM
AstroDIM

Product reference	Wattage [W]	DIM modes
PTo 35/220-240	35	-
PTo 50/220-240 3DIM	50	DALI, StepDIM and AstroDIM
PTo 70/220-240 3DIM	70	DALI, StepDIM and AstroDIM
PTo 100/220-240 3DIM	100	DALI, StepDIM and AstroDIM
PTo 150/220-240 3DIM	150	DALI, StepDIM and AstroDIM
PTo 250/220-240 3DIM	250	DALI, StepDIM and AstroDIM

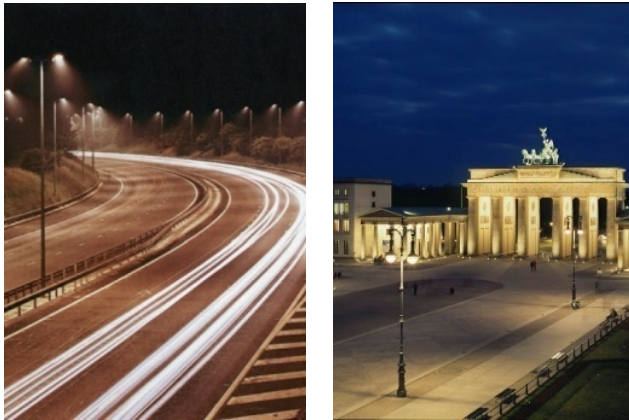


3DIM concept (Dali, StepDIM and AstroDIM)

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The added-value dimmable ECG

3DIM DALI
StepDIM
AstroDIM



- Perfect in a system with Ceramic or Sodium lamps
- “Continuous” dimming in the range between 100 % and 60 %
- 3DIM – three different control options combined in one ECG
 - **DALI®**: communication in telemanagement systems
 - **StepDim**: 2-step switching 100 % and 60 %
 - **AstroDim**: time-controlled 2-step dimming without any external controller
- ECG parameter setting with the 3DIM Software tool

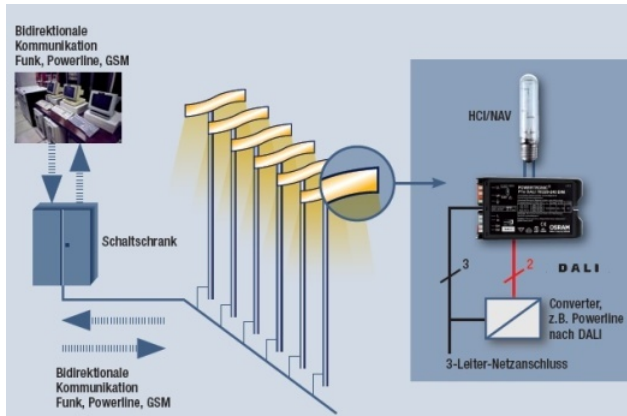


3DIM concept (Dali, StepDIM and AstroDIM)

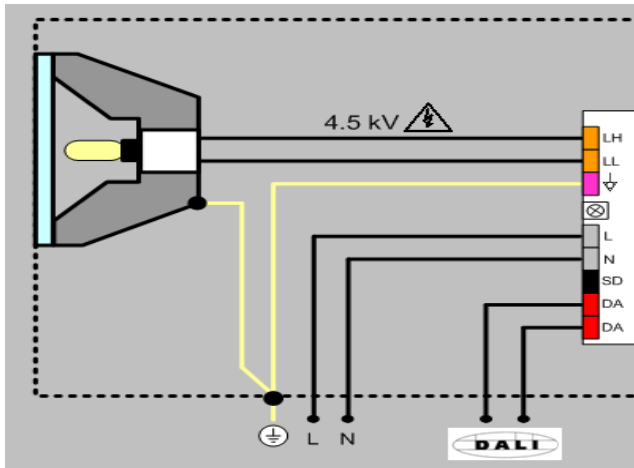
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DALI® – for telemanagement systems

3DIM DALI
StepDIM
AstroDIM



- The control signal reaches the luminaire in different ways (e.g. via power line communication (PLC), radio frequency (RF), GSM etc.)
- The luminaire controller converts the signal to DALI® and controls the ECG in this way
- PTo 3DIM is therefore controlled via the standardized DALI® interface
- DALI® has return channel capability and therefore allows bidirectional communication:
 - Status requests for the lamp or ECG
 - Optimization of maintenance cycles

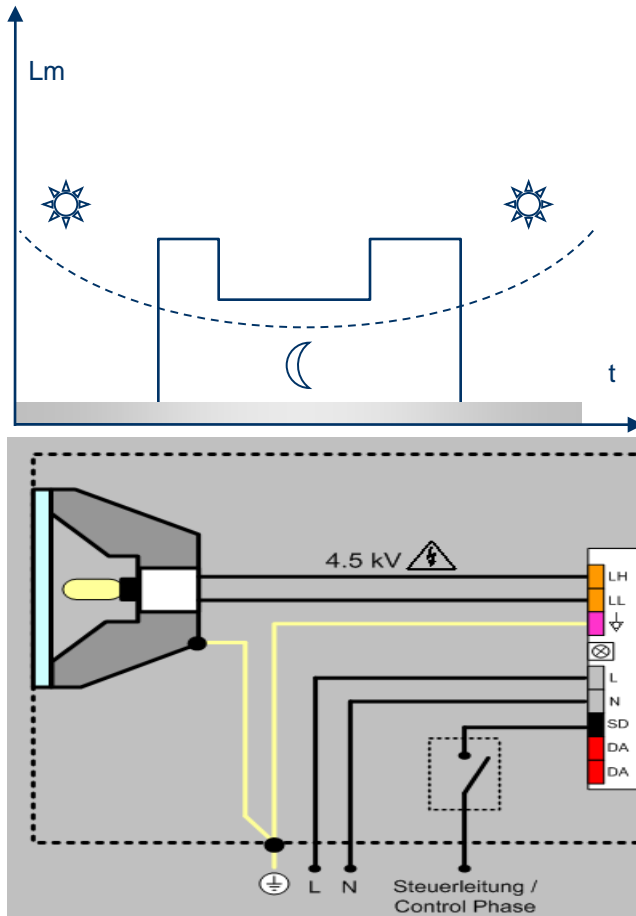


3DIM concept (DALI, StepDIM and AstroDIM)

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StepDim – 2-step switching

3DIM DALI
StepDIM
AstroDIM



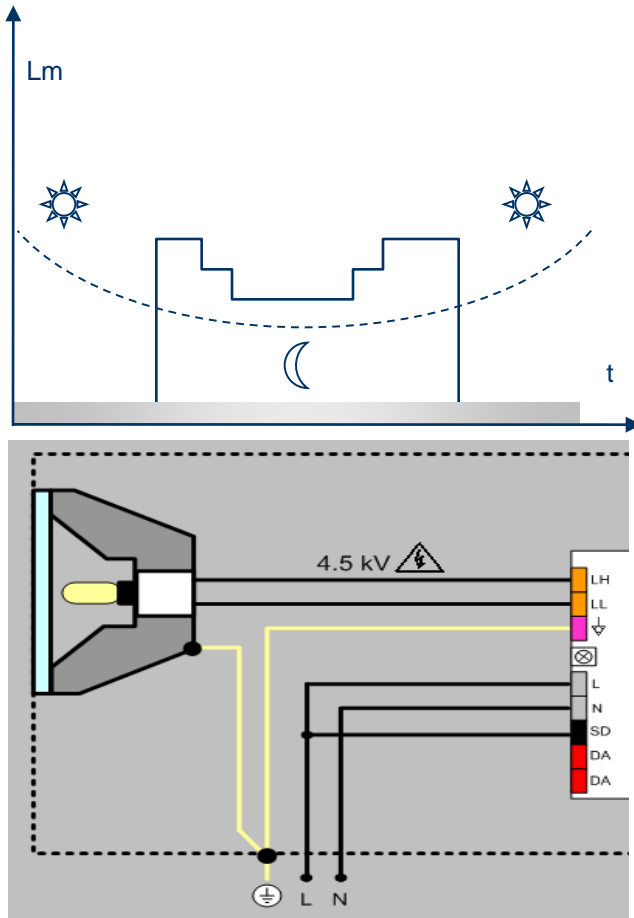
- Replaces the existing CCG 2-step dimming approach
- Uses the existing control infrastructure of choke tapping
- An additional control phase for activation/deactivation of dimming is connected directly to the ECG
- The configuration of the control logic can be changed by means of the 3DIM Software tool

3DIM concept (Dali, StepDIM and AstroDIM)

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AstroDim – dimming with an integrated timer control

3DIM DALI
StepDIM
AstroDIM

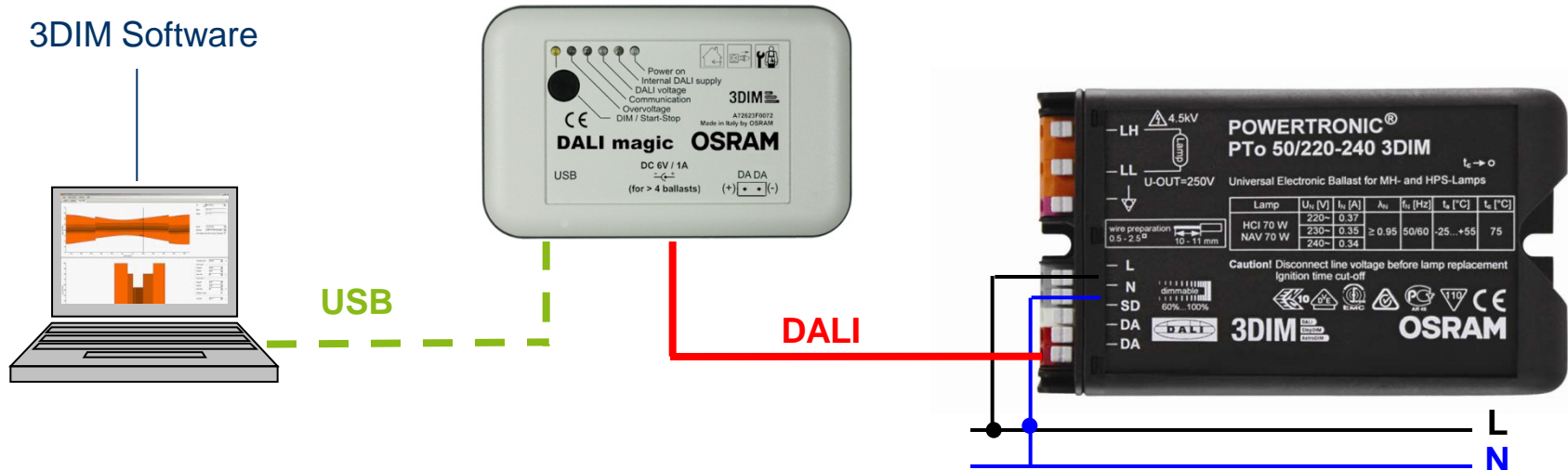


- Time-controlled dimming without any external control infrastructure
- Automatic conditioning of the ECG based on the active switching calendar in the central control
- Microcontroller-controlled reduction to preset default values or individual parameter values
- Several dimming steps possible
- Individual ECG parameter setting can be changed by means of the 3DIM Software tool

3DIM Software Tool

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DALI magic – Interface between PC and ECG



Product description:

- Intuitive and easy to use programming of StepDIM and AstroDIM parameters
- Allows both, changing and reading of set values

Product benefit:

- Enhances PTo 3DIM and OT 3DIM through customized StepDIM and AstroDIM
- Dimming behavior visualization
- Energy saving calculation and visualization