

TALEXcontrol LNU

12 VDC / 24 VDC PWM dimmer



- Perfect visibility – twilightCONTROL
- Energy savings of up to 40%
- Reduction of light pollution
- Rugged design – IP67
- Quick and easy installation – no external light sensor – no programming

Perfect visibility – twilightCONTROL

In twilightCONTROL mode, the lighting level of the signage installation automatically adjusts to ambient brightness thanks to the built-in light sensor. This ensures perfect illumination and energy savings.

In this mode of operation, the system is completely switched off during the day. In the evening, the signage switches on automatically, up to the maximum settable level. The high lighting level at dusk ensures perfect visibility, significantly enhancing the advertising effect. As it grows darker, brightness is reduced to the lowest settable level, thereby substantially improving signage legibility during the night. At daybreak, the lighting is again adjusted to its maximum level, in order to optimise visibility. As soon as there is sufficient ambient brightness the sign is switched off.

- ___ Perfect visibility even on overcast days
- ___ Potential energy savings of up to 40%
- ___ Reduction of light pollution in accordance with national directives and laws
- ___ Switches on and off depending on ambient brightness – no clock required
- ___ Increased LED service life

Quick and easy installation – no external light sensor – no programming

The TALEXcontrol LNU PWM dimmer with a built-in light sensor is installed in the signage installation so as to be invisible for the observer.

The dimmer is simply connected between the converter and the LEDs and does not need any programming.

- ___ No installation effort required for light sensor
- ___ Easy retrofitting of existing installations

Easy dimming via touch switch – switchDIM

In another mode of operation, the so-called switchDIM mode, the lighting level of the LEDs and/or the signage installation can be changed by means of a connected touch switch.

- ___ Lighting level of signage installation adjusted to meet national laws and directives
- ___ Simple system for dimming LEDs for general-lighting applications such as cove lighting, shelf lighting, etc.



With twilightCONTROL



Without twilightCONTROL

TALEXcontrol LNU PWM dimmer



► At a glance

- ___ Perfect visibility – twilightCONTROL
- ___ Energy savings of up to 40%
- ___ Reduction of light pollution – (Dark Sky certified “friendly devices”)
- ___ Quick and easy installation – no external light sensor – no programming
- ___ Rugged design – IP 67
- ___ Easy dimming via touch switch – switchDIM
- ___ Can be upgraded using LNU S extension units for installations with LED output in excess of 7,000 W
- ___ Built-in temperature monitoring function
- ___ Increased LED service life
- ___ Customised settings possible via LNU I service unit
- ___ 5-year guarantee

Technical features	LNU M	LNU S	LNU I
Input voltage	12 / 24 VDC		USB – 5 V
Max. input current	15 A		USB – 50 mA
No. of output channels	3 × PWM		Not applicable
DC voltage range output	12 / 24 VDC		Not applicable
Output current	max. 5 A / channel		Not applicable
PWM frequency	495 Hz		Not applicable
Voltage drop	150 mV max.		Not applicable
Ambient temperature t_a	-40 ... +60 °C		0 ... +50 °C
Storage temperature	-40 ... +85 °C		-30 ... +85 °C
Housing temperature t_c	max. 85 °C		max. 65 °C
Dimensions L × W × H	139 × 40 × 18.5 mm		48.5 × 53 × 13 mm
Protection rating	IP 67		IP 20
Input voltage range switchDIM	100–277 VAC 50/60 Hz	Not applicable	Not applicable
Dimming range twilightCONTROL	0–98%**	0–98% */**	Not applicable
Dimming range switchDIM	0% / 0.1–100%	0% / 0.1–100%	Not applicable
Marks of conformity	CE, ENEC, cRUus, IDA	CE, ENEC, cRUus	CE
Max. no. of LNU S per LNU M	Not applicable	19	Not applicable
Service life t_a +55 °C	50,000 h	50,000 h	50,000 h

*The extension units are controlled by the master unit via the synchronisation cable.

** Maximum level depends on the LEDs used and the mounting situation.

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TALEXcontrol LNU PWM dimmer	Art. no.	Description
LNU M 12–24 V IP 67 G1	28000018	Master unit
LNU S 12–24 V IP 67 G1	28000050	Extension unit
LNU I IP 20 G1	28000163	Service unit for programming LNU M and LNU S

Energy savings

Sample calculation:

We assume a signage installation with an output of 150 W, which is operated 10 hours a day. This calculation is based on an electricity price of EUR 0.10/kWh. One signage installation is operated without dimming, the other is dimmed to 50 W for eight hours each day.

Signage installation with TALEXchain CRYSTAL, undimmed, without control

Constant output of 150 W,
10 hours/day, 365 days/year

$10 \times 0.15 \text{ kW} \times 365$
= 547 kWh/year

Energy costs:
 $547 \times \text{EUR } 0.10 = \text{EUR } 54.70$

Signage installation with TALEXchain CRYSTAL, controlled by TALEXcontrol LNU

Operated daily for 2 hours at 150 W,
dimmed to 50 W for 8 hours

$(2 \times 0.15 \text{ kW} + 8 \times 0.05 \text{ kW}) \times 365$
= 255 kWh/year

Energy costs:
 $255 \times \text{EUR } 0.10 = \text{EUR } 25.50$

In this sample calculation, the annual savings amount to 292 kWh, EUR 29.20

This product is certified and registered as an "IDA friendly device". IDA is the recognized authority on light pollution. Founded in 1988, IDA is the first organization to call attention to the hazards of light pollution, and in 26 years of operation its accomplishments have been tremendous. Tridonic is proud to support IDA.



Support and advice from a single source

We will help you to create messages out of light that are unbeatable in terms of economy and functionality.

As part of Tridonic, Tridonic Signage is represented worldwide by 30 branch offices and partners in 73 countries.

The easiest way to find your regional contact is to check our website at www.tridonic.com / www.tridonic-signage.com

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