# USER GUIDE DRU7636J/N

UNIVERSAL DIMMER CONTROLLED BY PUSH-BUTTON (4 WIRES)



# Universal dimmer switch in MOSFET technology, for resistive and inductive loads, electronic LED drivers, LED 230Vac lamps.

With this regulator you can adjust all the 230Vac incandescent, halogen, LED, <u>provided that they are dimmable</u>.
You can adjust also low voltage (12Vac) LED and halogen lamps through an appropriate transformer or electronic driver.
The device can be operated through one or more normally open (NO) push-buttons, connected to phase (F) or neutral (N) (see diagrams).

## PROGRAM OPERATION WITH BRIGHTNESS MEMORY:

Pressing the button for a short time (0,5"), a "soft start" begins and proceeds until the light setting in memory is reached. An addictive short pulse switches the regulator off through a "soft stop".

Holding the push-button pressed for more than 0,5", the memory point of the bright stream changes (DIMMING function).

N.B. <u>In the event of power supply breakdown: the brightness</u> level is stored in memory (LEVEL MEMORY function).

#### PROGRAM OPERATION WITHOUT BRIGHTNESS MEMORY:

The only difference with the previous modality is that every time you turn off the power supply, the stored state is lost.

N.B. The program set during the testing is "WITHOUT MEMORY" type and with LEADING EDGE (TRIAC) operativity (flashing light).

#### **TO CHANGE PROGRAM**

## (WITH OR WITHOUT MEMORY FUNCTION):

- 1) Remove the mains voltage
- 2) Press and hold the push-button
- 3) Insert the mains voltage
- 4) Wait for the lamp to flash
- 5) Release the push-button down

Two lamp flashes indicate that the dimmer is passed in «MEMORY» mode

Only one light flash indicates that the dimmer is passed in «WITHOUT MEMORY» mode.

N.B. No "STATUS MEMORY" is stored in the absence of mains voltage. The dimmer is set at 0% (light off after a blackout).

### **OPERATIONS FOR CHANGING MODE OF OPERATION:**

- 1) Holding the button pressed (lights off), the device switches in sequence from a modality to the next one every 5".
- Release the button when the LED light matches the desired mode

# OPERATING MODE:

- LEADING EDGE Ascending phase cut (TRIAC)
- TRAILING EDGE Downward phase cut (IGBT)

LED light mode	Mode
STEADY LIGHT	Leading Edge (TRIAC)
FLASHING LIGHT	Trailing Edge (IGBT)

#### **WARNINGS:**

# It is recommended to protect the device with 2A/250V FAST FUSE.

Do not connect electromechanical transformers with noload conditions (without load).

Do not use light buttons.

The housing must allow sufficient ventilation to the dimmer, therefore do not install near other heat sources.

This device does not provide galvanic separation between the line and load

# RECOMMENDED OPERATING MODES FOR DIFFERENT LOAD TYPES:

**LEADING-EDGE (TRIAC)** (Phase dimming at the beginning of the phase)

- Electronic LED drivers
- Electronic drivers for halogen lamps 12Vac
- Dimmable LED Lamps (230Vac)
- Toroidal transformers
- Halogen Lamps (230Vac)
- LED SEOUL Acrich modules (230Vac) (See table)

#### N.B. NO LAMELLAR TRANSFORMERS

TRAILING-EDGE (IGBT) (Phase dimming at the ending of the phase)

- Electronic LED drivers
- Dimmable LED Lamps (230Vac)
- LED SEOUL Acrich modules (230Vac)
- Electronic drivers for halogen lamps 12Vac (See table)

#### **N.B. NO LAMELLAR TRANSFORMERS**

#### **Technical Features:**

- Power Supply Voltage: 230Vac 50Hz
- Thermal limiting load (NTC)
- Short Circuit Protection (SCP)
- Overload protection (OLP)
- Operating Ambient Temperature: Ta -5°  $\div$  +35°
- Power consumption: 1W

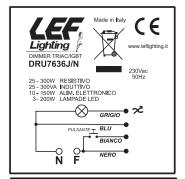
## **General Characteristics:**

The device is placed in a plastic case (45Lx40Px15H mm) and filled with polyurethane resin compliant to UL 94V-0. The resin coatin gives both good electrical insulance and mechanical resistance.

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WIRING DIAGRAMS





CAMBIO MODALITÀ DI FUNZIONAMENTO

Rilasciare il pulsante quando la spia LED corrisponde alla modalità desiderata.

Modalità d'uso

Leading Edge (TRIAC) Trailing Edge (IGBT)

1) Spegnere la luce con il pulsante

Premere e tenere premuto il pulsante, il dispositivo passa in sequenza da una modalità all'altra ogni 5".

Spia LED

Luce lampeggiante

# **MINIMUM BRIGHTNESS ADJUSTMENT PROCEDURE:**

- 1) Turn on the light by pressing the push-button.
- 2) Press and hold the push-button pressed in order to decrease the brightness.

Wait about 5" (the lamp does not change brightness during this time interval) until the brightnesss starts again to rise and fall slowly (minimum setting).

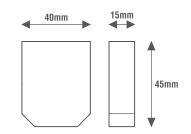
3) During this last step, release the button when the brightness has reached the desired value (storage of the minimum level).

# **PROTECTION:**

Electronic short-circuit protection: Immediate switch off of the dimmer upon detection of the short circuit (failure prevention not guaranteed).

Overload protection: prevents the dimmer from turning on if the load exceeds the maximum allowed power.

Thermal limitation: lowers the brightness and in extreme cases turns off the dimmer if an excessive internal temperature is detected



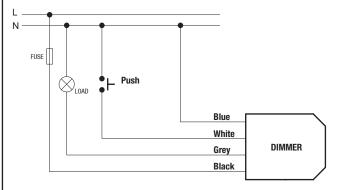
CODICE CODE	Modalità spia LED LED indicator mode	<b>Taglio</b> <b>di Fase</b> Phase Cut	RESISTIVO RESISTIVE Lampade ad incandescenza o alogene Incandescent or halogen lamps 230Vac	INDUTTIVO INDUCTIVE Trasformatore lamellare Laminated transformer 230/12Vac	<b>toroidale</b> Toroidal	Alimentatore elettronico con lampade ad incandescenza o alogene Electronic driver with incandescent or halogen lamps 230/12Vac	Alimentatore elettronico con lampade LED dimmerabili Electronic driver with dimmable LED lamps	Alimentatore elettronico dimmerabile con uscita in CC/CV per LED Dimmable electronic driver with CC/CV output for LED	Lampade LED dimmerabili Dimmable LED lamps	Moduli LED dimmerabili Dimmable LED modules Seoul ACRICH 230Vac	Peso Weight (g)
DRU7636J/N	Luce fissa   Fixed light	TRIAC	25-300W	-	25-300VA*	10-50W	10-50W	10-50W	3-40W	4-50W	50
	Luce lamp.   Flashing light	IGBT	-	-	-	50-300W	50-150W	50-150W	40-200W	50-150W	30

Descending Phase Cutting dimming (at the end of the phase) IGBT Trailing Edge Ascending Phase Cutting dimming (at the beginning of the phase) IGBT Trailing Edge

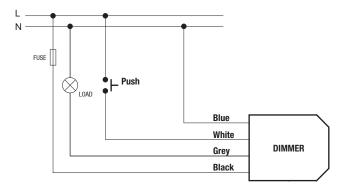
Notes: above 35 °C ambient, derate the maximum load by 20% for each further increase of 5 °C



#### Push-button connected to the NEUTRAL



# Push-button connected to the LINE



## Reference Standards

EN 60669-1 EN 60669-2-1

















PRODUCT TO BE DISPOSED DIFFERENTLY FROM URBAN WASTE AEE identification nr.IT18040000010321

**MADE IN ITALY** 

<sup>\*</sup> Use the transformer at least at 50% of its rated power.