

Dimmax 420SL – User manual

Foreword

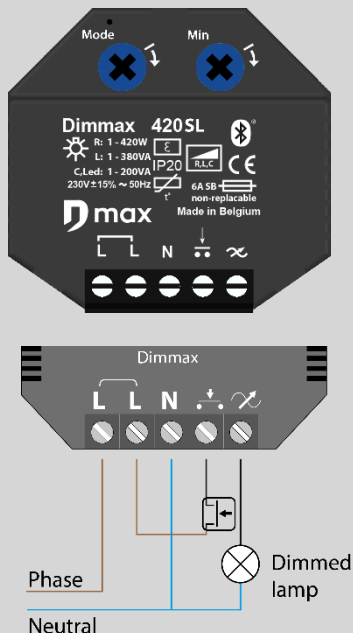
- The Dimmax universal dimmer can dim your LED lightings, classical light bulbs and halogens (230V/12V via transformer).
- For an optimal functioning, only connect a single type of lamp.
- A connected pushbutton is required for the functioning of the dimmer.
- The dimmer must have a proper power supply (phase, neutral).
- The dimmer remembers its last dimming position (ex-factory setting: 50%).
- The power a Dimmax 420SL is of 0 to 200W for LEDs and of 0 to 420W for other lamps; 30 lamps max.

Wiring and configuration of the dimmer

In order to get a good dimming, these steps must be carefully followed:

1. Plug the dimmer according to the hereby enclosed diagram (cut off the 230V with the circuit breaker first)
2. Plug the lamp and make sure it is properly dimming (ex-factory configuration of the dimmer is set to mode 1).

- **The lamp is correctly dimming?** (progressively and to a minimal level): → go to step 3.
 - **The lamp isn't correctly dimming?** (improperly or not at all): → try with another mode.
 - **The lamp isn't correctly dimming in any mode?** (improperly or not at all): → Read thoroughly the user manual as well as the possible error codes detailed in the technical documentation available on the website.
3. Now set the minimal dimming level with the right selector (minimal threshold).

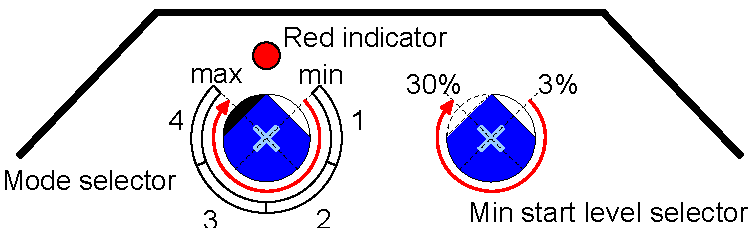


In case you have a question, see the detailed version at www.dmaxbydomintell.com or contact your supplier.

Technical data

Item number	Type	Voltage	Power	Dimension
5425014390421	Dimmer 420SL	230V	0-420W (LED 0-200W)	48 x 46 x 18

- Nominal conditions: 230V AC +/- 15%, 50 Hz, Ambient temperature: -10°C to 40°C.
- The Dimmax 420BLE is designed for lightings. Other loads (such as engines) are forbidden.
- Maximum wiring section per contact = 2,5 mm².
- Maximum tightening torque: 0,4 N.m (use a dynamometric screwdriver).
- 2 self-resettable protections: against overcurrent and temporary overheating
- 2 additional physical protections: a thermostatic 230V power cut-off switch, self-resettable, and a fuse (non-replaceable)
- IP20 protection degree



Safety and environment

- Without halogen, RoHS.
- Storage conditions: Temperature: -25°C / +70°C, Relative humidity: < 75%.

- For a safe installation, the device can only be mounted by a qualified electrician.
- The device must not be opened in any case (cancels warranty).
- The device can only be installed inside, in a dry place, compatible with IP20 devices.
- During the mounting and unmounting of the device, cut off the 230V circuit-breaker.
- The screws of the connectors of the device are unscrewed at delivery and must be properly screwed before use.
- After installation, the screws of the connector must be protected so that could not be accessible for the final user.

Operation mode settings

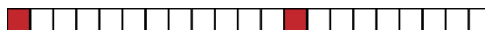
After reconnection of the 230V, the 420BLE Dimmax turns on while its **red indicator** turns on for 0.5 second.



Smoothly turn (clockwise) the **operation mode setting** from its stop (fully left). The first quarter = mode 1, second quarter = mode 2, etc up to mode 4. Mode selection is confirmed with a visual code of the **red indicator**:

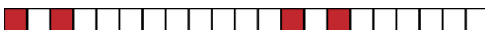
Mode 1 (1 short red flash, endlessly repeated) = **trailing edge dimming**, to be used with:

- 230V classical light bulbs and halogens (BEST at cold startup), power 0 – 420W.
- 230V **dimmable** electronic converters or LEDs **designed for trailing edge**, power 0 – 200VA.



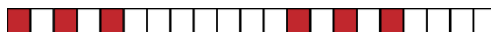
Mode 2 (2 short red flashes, endlessly repeated) = **leading edge dimming**, (also called "triac mode"), to be used with:

- Disc-wound transformers for 12V halogens (the Dimmax 420BLE automatically detects them and forces mode 2), power 0 – 380VA. **Caution:** the load for this type of transformer must be of at least 80% of the nominal power of the transformer.
- Electronical converters or dimmable **leading edge** compatible LEDs, power **up to 200VA**.

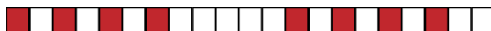


Mode 3 (3 short red flashes, endlessly repeated) = **power-optimized mode for LEDs**, power **up to 200VA**, to be used with:

- Electronical converters or 230V **dimmable LEDs**. *LMode 3 was designed to control more LEDs (or converters) with usually less losses and reduced peak currents. However, some LEDs are better dimmed with other modes. Do no hesitate to try.*



Mode 4 (4 short red flashes, endlessly repeated) = **anti-flickering optimized mode for LEDs** (can particularly fit 230V dimmable « filament » type LEDs); this mode leads to a significantly reduced power compared to other modes.



When a mode limit is crossed by turning the selector (one way or the other), the Dimmax 420SL is reinitialized. This means:

- The dimmer output is slowly TURNED OFF, the load is cut-off;
- The **red indicator** turns on for 0.5s to confirm the mode switch;
- And then, the **red indicator** will display the code of the new mode.



Tip: Cross a mode limit is an easy way to reset (including error conditions) without cutting-off the 230V.

As soon as a mode is displayed, the Dimmax 420SL is ready to work under the control of the pushbutton.

Pushbutton control

For a LONG PUSH (>0,4s) on the button: the dimmer turns on (if it was OFF) and the dimming level slowly increases/decreases between Min (settable) and Max (100 % = total conduction) level; the last level is maintained by releasing the button.

For a SHORT PUSH (<0,4s) on the button: the dimmer turns on or off with a smooth transition.

Dimmax 420SL is manufactured in Belgium by: Domintell S.A. dmaxbydomintell.com

