

PUSH DIRECT DIM ADJUSTMENT

Characteristics of PUSH Direct Dim Adjustment

- In PUSH direct dim adjustment the driver internally adjusts its potentiometer 1-10V, working in the same way as 1-10V dim adjustment but controlled directly using a switch.
- It must be done with conventional switches (there is NO need for any additional dim adjustment panels).
- Dim adjustment is smooth thereby reducing the chances of flickering occurring. This chance is always very slim when compared to other types of dim adjustment, such as phase cutting, for example.
- Desynchronisation may occur. This is usually reversed and generally by means of keeping it pushed down for a certain length of time or with a certain push sequence.
- DOES NOT generate noise.

Conditions for Use

- It needs L and N power plus a return cable from the switch that is connected to PUSH L (normally). Also, depending on the driver, you may need an additional neutral input as shown in the diagrams.
- The switch must not have an indicator light.
- It is possible to reuse switches provided they are in good condition.
- It is possible to add several switches in parallel for dim adjustment from several points (controlling distances and synchronisation).
- It is possible to add several devices to the same switch. However, the greater the number of devices there are, the greater the possibility of desynchronisation.
- Always follow the instructions from the manufacturer of the driver.
- If you decide to add several devices, the switch return cable must enter each driver in parallel and must not be bridged from one driver to another.
- Dim adjusts from 1 to 100%.

Recommendations for use

- New or existing installations, in which it is possible to install the control wiring.
- In installations where a switch is already in place and the wiring is available.
- When smooth dim adjustment is needed, generally controlled by a switch, without the presence of flickering.
- Small/simple installations but carried out by professionals who have experience with this type of dim adjustment.

Installation diagrams PUSH Direct (BOKE driver)

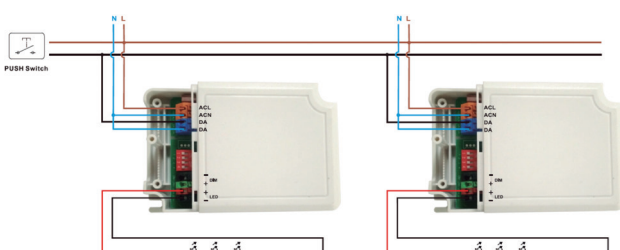


Image 11. PUSH Direct connection diagram

Frequently asked questions (FAQ)

In which terminals of the driver is the switch (PUSH) connected?

(See previous installation diagrams)

IMPORTANT: This type of driver does not need any additional dim adjustment panel. Dim adjustment is done directly in the driver from the impulses generated by the switch.

It is necessary to pass three cables to the luminaires: those indicated in the figure and, in reference numbers with BOKE driver, the neutral will need to be duplicated.

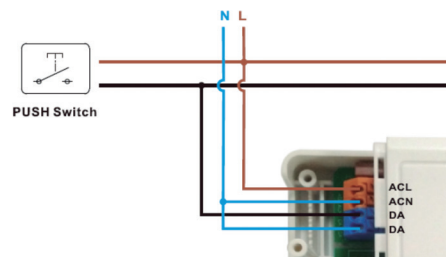


Image 12. Example connection with driver 3042-47MmA

The drivers supplied with the PUSH adjustable luminaires have a terminal identified as PUSH L. This terminal is where the switch return cable must be connected. The switch sends the impulses to the driver through this cable in order to handle switching on and off or the adjustment of the light intensity. In addition to the switch return cable, a continuous supply of power must be connected via the AC input connection (L and N) and, where appropriate, a duplicated neutral input.

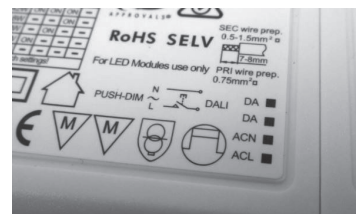


Image 13. Example connection with driver 3042-47MmA

How many devices can be connected in a circuit which is adjusted using a switch (PUSH)?

WITH BOKE DRIVER

In this case, the maximum number of drivers connected to the same switch is 20. In the event of desynchronisation, it is possible to re-synchronise by keeping the switch pressed down until the devices' maximum light intensity is reached.

WITH TCI DRIVER

It is not usually recommended that you connect more than four devices per switch. In some cases, when several devices are connected to the same switch, system desynchronisation may occur. This problem can be solved by doing the following:

1. Turn on the devices.
2. Press down the switch for more than one second followed by a press of < 1 sec.

ANNEXED Information

PUSH DIRECT Dimmable

3. The devices should be turned off.
4. Press down for a longer time and then it will be synchronised again.

Some devices allow for the use of a synchronisation cable (Ref. JISO_3SIN-C1,5 or 3SIN-C4,0) in order to handle the dim adjustment of the devices connected to a switch using the "Master and slave" system. In this way, the switch return would be added to a single driver and the rest would be interconnected from this by means of the synchronisation cable.

With this system it is possible to add up to 10 drivers per circuit (1 master and 9 slaves).

This is an option with the PUSH luminaires that incorporate the drivers with the following reference numbers:

- 3025-43350
- 3030-33MmA
- 3055-33MmA

NOTE: The synchronisation cable is supplied as a separate reference number and should be taken into account when designing the installation.

The "Master and slave" system is also compatible with the following drivers, which are incorporated in the DALI and 1-10V luminaires:

1-10V	DALI
3025-33350	3025-43350
3030-33MmA	3030-43MmA
3055-33MmA	3055-43MmA

Can I install a dim adjustable luminaire to a switch with position indicator?

NO.

The luminaires supplied by JISO ILUMINACIÓN, SL. that incorporate dim adjustable drivers cannot be installed with this type of dimmer switch.

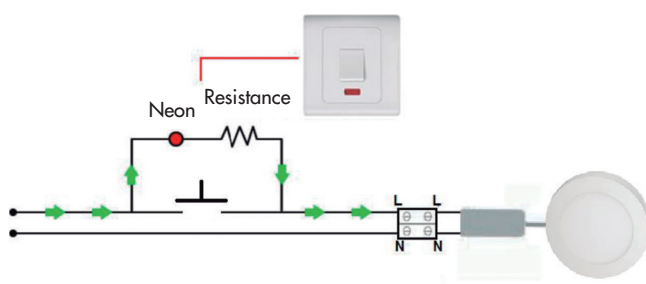


Image 14. Residual current due to switch with indicator light

As shown in the previous figure, when a switch with an indicator light is used, even if it is in the open position, intensity continues to enter the power supply circuit of the downlight. This intensity results in the PUSH function of the driver not working correctly or, directly, not working at all.

How does the switch dim adjust?

The dim adjustable luminaires with the PUSH option enable you to switch ON/OFF and to adjust using a switch without an indicator light.

This dim adjustment is done as follows:

- A short press of the switch turns it on or off.
- A long press increases or decreases the intensity of the light.
- When the long press reaches the minimum or maximum, it stops adjusting.

Can I dim adjust using a switch from several points?

Dim adjustable luminaires with the PUSH option from JISO ILUMINACIÓN, SL. do technically allow for dim adjustment by means of adding several switches in the same circuit but, in this case, it is recommended, wherever possible, to make use of the synchronisation cable in the reference numbers that have this option since, in this way, the risk of desynchronisation is reduced.

For installation with this type of configuration, it must be taken into account that the switch returns will be connected to the PUSH L terminal of the circuit driver(s).

Whenever possible, it is recommended that you dim adjust using a single switch.

My installation with PUSH Direct leaves a remnant of light when it is switched off. How do I fix this?

Dim adjustable luminaires with the PUSH Direct option can on rare occasions give this type of problem. If this occurs, in order to avoid this problem, you should use the 1-10V dim adjustment that this type of luminaire allows, since they incorporate a driver with this other function and, by means of a 1-10V dim adjustment panel for LED, do the dim adjustment with the switch.

It should be borne in mind that the above requires adding another cable since four cables will have to reach each driver instead of three.