The universal flush-mounting rotary dimmer plus 5 325 W is suitable for the dimming of resistive, inductive and capacitive loads as well as dimmable halogen, LED and economy (CFLi) lamps. This device is not suitable for the control of motors.

The dimmer can be used with or without memory and is equipped with automatic detection in the event of a system defect (overload, short circuit, ...).

The central plate with the control button and the flush surround plate must be ordered separately

To dim the lighting from a different location, you must use a rotary button extension instead of an NO push button. You can connect up to five extra rotary button extensions (310-0200x) to this dimmer. The rotary button extension must also be ordered separately. Consult the rotary button extension manual for more information about this product.

2. INSTALLATION

control points: 1 control point

Danger: Disconnect all power before installing the dimmer. Do not connect the device to the mains voltage until installation has been completed (including the central plate and flush surround plate).

Tip: Install the dimmer in an environment with a non-condensing atmospheric humidity (30 70%). Connect the dimmer and the load(s) according to the wiring diagram below, depending on the number of

1 control point

Tip: Do not use mixed loads on one single dimmer.

230 Vac load 12 V transformer **₫**CE: CE

several control points ELLOPU CE 230 Vac

* Connect the three connection terminals (N, L, 1) of the dimmer to the corresponding connection terminals of the rotary button extension.

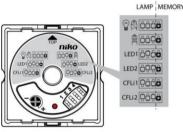
Mount the dimmer in a flush-mounting box with a flush-mounting depth of at least 40 mm. Secure all parts as shown below:



3. SETTINGS 3.1. Adjusting the dimmer settings according to the type of lamp

Manually adjust the first three DIP switches behind the control button according to the type of lamp that you want

to dim. Check the diagram below to find out the correct DIP switch settings for each type of lamp.



abbresymbol type of lamp type of lamp viation incandescent lamp LED₁ dimmable LED lamp reverse phase control 8 LED 2 dimmable LED lamp phase control halogen lamp with an electronic transformer halogen lamp with an electromagnetic CFLi 1 dimmable economy lamp reverse transformer CFLi 2 dimmable economy lamp phase control

3.2. Selecting the minimum light intensity In order to achieve the optimal dimming level of each lamp, adjust the minimum light intensity. There are three

possibilities: If the minimum light intensity is satisfactory, you do not need to adjust the dimmer.

high. Use a screwdriver to turn the potentiometer on the dimmer counterclockwise to decrease the minimum light intensity. Stop until just before the light starts flickering or is dimmed completely. If the light is flickering or not bright enough, the minimum light intensity is set too low. Turn the potentiometer on the dimmer clockwise with a screwdriver to increase the minimum light intensity. Check the diagram below for a summary of available options

If the light is too bright at the minimum dimming level, the minimum light intensity is set too

Action	Check	Conclusion	Action	Check
Dim to minimum		Minimum dimming level OK	/	
nika V d cood d cood di usi cood cood usi guidose cood usi	-	Minimum dimming level too high		
MIN MAX	OR P	Minimum dimming level too low		

4. OPERATION AND USE 4.1. Maximum permitted load

Check the table below to find out the maximum load for each type of lamp at an ambient temperature of 35°C.

type of					
lamp		HAL. 230 V	HAL. 12 - 24 V	dimmable economy lamp (max. 10)	dimmable LED lamp (max. 10)
max.	325 W	325 W	325 W	200 W	200 W
min.	5 W	5 W	20 W	5 W	5 W

4.2. Normal operation This dimmer works according to the phase control or the reverse phase control principle, depending on the

setting (see section 3.1.).

Use of the control button	Result
pressing	You switch the light on or off.
rotating	You adjust the light intensity. As soon as you reach the maximum light intensity, the dimming level remains unchanged.
rotating quickly	You produce a rapid decrease or increase in the light intensity.
rotating slowly	You produce a rapid decrease or increase in the light intensity.

Attention: The dimmer is never electrically separated from the mains voltage. All parts remain connected to the mains voltage even if the load (e.g. the light) is off.

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PM310-0190XR13043

4.3. Memory function

DIP switch position

EN

The standard setting of the dimmer is without memory function. You can use the fourth DIP switch behind the control button to activate or deactivate this function:

1 2 3 4	DIP switch up	memory function on
1 2 3 4	DIP switch down	memory function off

If the memory function is activated, the dimmer switches on for the first time at the default dimming level chosen by the manufacturer. Thereafter, the lighting will be dimmed at the last set value.

the memory function is activated. In the event of a power failure, this value will not be lost.

The last dimming level set before switching off the dimmer is saved in the permanent memory of the dimmer if

Dimming dimmable economy lamps with memory function The dimming profile is set up so that the dimmer is first switched on to its maximum light intensity for a short

time and then returns to the dimming level saved in memory. All economy lamps can be switched on like this.

5. TROUBLESHOOTING

The operation of the dimmer can be disturbed by signals that are sent over the mains. This is not a defect.

Problem Cause Action

The dimmer does not work.	The mains voltage is not connected. The load is not connected. The allowable load is too high. The lamp or the wire is defective.		Connect the device to the mains voltage.	
			Connect the load correctly as shown in the wiring diagram.	
			Provide for a lower load.	
			Replace the lamp or the wire.	
	The minimum dimming level has been set too low.		See section 3.2. to set the minimum dimming level.	
The dimmer switches itself off. The red LED on the dimmer flashes.	The thermal overload (temperature too high) and the short-circuit protection have been activated.		Check whether the load is too high. When doing this, keep in mind the reactive power of ferromagnetic transformers.	
			Check the temperature in the flush-mounting box (max. 35°C).	
			Check whether mixed loads are being used.	
			Check the ambient temperature and the positioning conditions. If necessary, reduce the connected capacity.	
			Check whether you have set the DIP switches correctly for the type of lamp used.	
6. TECHNICAL DATA				
power supply voltage		230 Vac ± 10%, 50 Hz		

mounting	flush-mounting box with flush-mounting depth of min. 40 mm
weight	± 70 g
no-load power consumption	< 0,5 W
max. housing temperature (Tc) at 35°C (Ta)	90°C
max. ambient temperature (Ta)	see capacity graph below
capacity ¹	dependent on the ambient temperature (see capacity graph below)
max. wire diameter per connection terminal	2 x 2,5 mm ²
min. load	5 W
protection	protected against thermal overload and short- circuit
max. distance between dimmer and rotary button extension(s)	75 m
standards	EN60669-2-1

100% 95% 90% 85% 80% 75% 70% 65% 60% 55% 50% 50 10 20 30 40 60 Ambient temperature (°C)

7. WARNINGS REGARDING INSTALLATION -The installation should be carried out by a registered installer and in compliance with the statutory regulations.

- -This user manual should be presented to the user. It should be included in the electrical installation file, and
- it should be passed on to any new owners. Additional copies are available on the Niko website or via the Niko support service. -During installation, the following should be taken into account (non-exhaustive list):
- the statutory laws, standards and regulations.
 the technology currently available at the time of installation.
- -this user manual, which only states general regulations and should therefore be read within the scope of each specific installation. - the rules of proper workmanship.

This product complies with all of the relevant European guidelines and regulations. If applicable, you can find the EC declaration of conformity regarding this product at www.niko.eu. 8. NIKO SUPPORT

In case of doubt or for the specific exchange procedure in case of a possible defect, contact the Niko support

service in Belgium at $+32\ 3\ 778\ 90\ 80$ or your wholesaler/installer. Contact details and more information can be found at www.niko.eu under the Help and advice section. 9. GUARANTEE PROVISIONS - The period of guarantee is four years from the date of delivery. The delivery date is the invoice date of

- purchase of the product by the consumer. If there is no invoice, the date of production applies. - The consumer is obliged to inform Niko in writing about the non-conformity, within two months after stating the defect.
- In case of a non-conformity, the consumer only has the right to a product repair or replacement free of charge, which shall be decided by Niko. - Niko shall not be held liable for a defect or damage resulting from incorrect installation, improper or
- careless use, incorrect operation, transformation of the product, maintenance that does not adhere to the maintenance instructions or an external cause, such as damage due to moisture or overvoltage. - The compulsory regulations of the national legislation concerning the sale of consumer goods and the
- chain stores, distributors, agents or permanent sales representatives, take priority over the above-mentioned rules and regulations.

protection of the consumer in the countries where Niko sells, directly or via sister companies, subsidiaries,