

# klemko<sup>®</sup> MANUAL

## 890300 - BIKKEL LED 100

**NOTE:** isolate all connection cables before installation.  
Read the instructions for use.  
If in doubt, consult a qualified installer!

### PROTECTION

The Bikkel has built-in short circuit, overload and temperature protection. If the limits are exceeded, the Bikkel will automatically dim the lighting down again or switch it off.

### HEAT DEVELOPMENT

These dimmers will become hot when in operation because they convert some of the connected power (the losses) into heat.

The maximum ambient temperature is <math><60^{\circ}\text{C}</math> ( $T_{\text{amb}} = 60^{\circ}\text{C}</math>).$

If the maximum temperature is exceeded, the Bikkel automatically dims the lighting down again.

The Bikkel dimmer is not suitable for wound transformers and light bulbs!

### SPECIFICATIONS

Mains voltage	220 - 240 V AC 50Hz (+6% / -10%)
Power	Max. 115 VA (pf = 0.9 = 100W)
Max current	< 0.44 A
Max. number of LED drivers	Max. 13 (multiple light sources per driver possible)
Max. number of (retrofit) light sources	Max. 13
Dimming action	C / trailing edge
Fuse	Integral: 0.45 A electronic fuse Installation: 16A IEC/EN 60898 certified, Type B
Standards	CE
$T_{\text{ambient}}$	-20°C to +60°C
$T_{\text{critical}}$	+85°C
Protection	Overloading, temperature, short circuit
Suitable lighting	LED lighting via dimmable LED driver suitable for trailing edge (Dimmable LED (retrofit) light sources suitable for trailing edge). NOTE: Not suitable for incandescent lamps!

### DESCRIPTION

The Bikkel is a compact, universal flush-mounted dimmer for LED lights up to 115VA/100W and max. 13 separate (retro-fit) LED lights or drivers.

The Bikkel is easy to install behind an existing switch. Install the Bikkel in series with the switch to the lamp or use a separate potential-free pulse switch suitable for 230V.

It is very easy to set the Bikkel. The autotuning in the software automatically adjusts to the connected load. The minimum lighting level can be set in steps of 6%.

### FUNCTIONS

The following commands are used to set the Bikkel:

1x on/off	The lighting will switch on or off
8x on/off	Start manual tuning
10x on/off	Start automatic tuning
12x on/off	Lower the minimum lighting level by 6%
14x on/off	Raise the minimum lighting level by 6%
20x on/off	Activate presence simulation

### UNSTABLE LIGHTING

If the LEDs start flashing when the power is low, follow the steps below.

- Turn the switch on and off or press the pulse switch.
- Press 14x to increase the minimum power by 6%.
- Repeat this step if necessary.

### LOWERING THE POWER

Press 12x to lower the minimum power by 6%.

### OPERATION

#### Operation using switch

When you switch on, the softstart begins. During the softstart, switch OFF and ON at the lighting level you want to set that brightness.

#### Operation using pulse switch

Press the pulse switch briefly to switch the lights ON or OFF. Keep the pulse switch pressed in to dim. The dimmer alternates between dimming up and down.

### INSTALLATION

Check whether you are using trailing-edge dimmable LED drivers or LED light sources.

- Disconnect the power supply.
- Then connect according to wiring diagram 1 (when using a switch) or diagram 2 (when using a pulse switch).

### Setting minimum lighting level

To set the Bikkel dimmer to the minimum setting without flashing, proceed as follows:

#### Automatic tuning:

Press 10x to start "autotuning". This will attune the dimmer and connected load to one another in the most effective way. This will set the lighting level without flashing and determine the lowest stable lighting level.

If the automatically set minimum level results in the lighting staying off, opt for manual tuning.

#### Manual tuning:

- Press 8x on the switch to start the manual procedure. The light will flash 3x.
- The light will dim from 0W to a higher level. Once the lighting level you want is reached, press 1x on the button to store this light setting.
- The light will flash 3x to indicate that the set minimum level has been stored.

### POWER FAILURE

If there is a power failure, the Bikkel will respond as follows:

#### When using a pulse switch

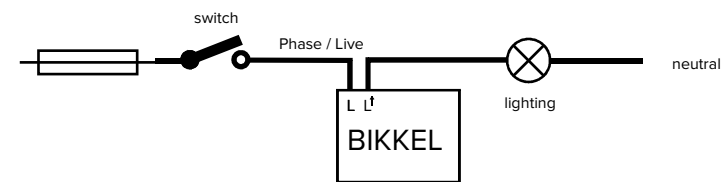
When power is lost for > 5 sec and after the power is restored the Bikkel will return to the last known level. If the lighting was on before the power failure, the lighting will automatically switch on again at the last known level. If the lighting was off, it will remain switched off.

#### When using a switch

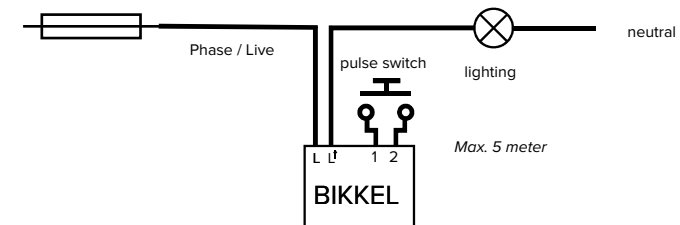
If power is lost for > 5 sec, when the power is restored the Bikkel will do a softstart until the maximum level is reached.

### WIRING DIAGRAM

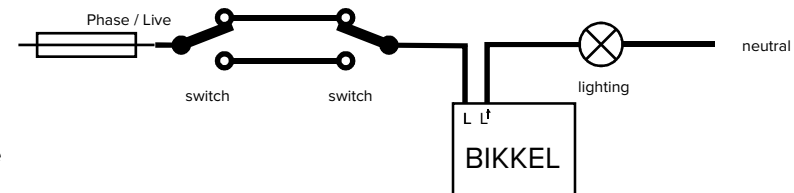
#### Wiring diagram 1 (switch)



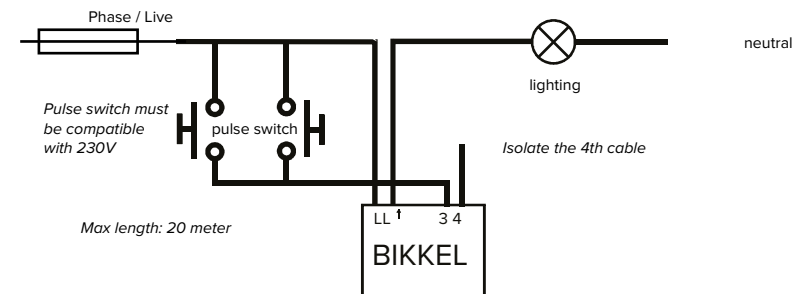
#### Wiring diagram 2 (pulse switch)



#### Wiring diagram 3 (two-way switch)



#### Wiring diagram 4 (pulse switch)



### EXTRA FUNCTIONS

#### Presence simulation

To start the presence simulation, press the on/off switch or the pulse switch 20 times. The light will flash 3x, then stay switched on for one minute and then switch off. The Bikkel will then switch on at random times and for random periods.

The simulation will continue to be in effect 24 hours a day. This function is switched off the next time the on/off switch or pulse switch is used.