# Operating manual Electronic Series Switch ES1000W-AF8 



## Scope of delivery

1 Electronic series switch ES1000W-AF8
1 Operating manual

## Usage instructions

The ES1000W-AF8 is intended exclusively for lighting purposes.

It can be used in all classical switching circuits, such as switch-off, alternating or cross circuits and in impulse relay circuits. The ES1000W-AF8 extends these circuits to include series switching in a very simple manner.

The ES1000W-AF8 electronic series switch allows separate switching of additional lights, such as: ceiling lights and wall lights using only a single existing 230 V circuit.

## Article designation/article number

ES1000W-AF8 / 014002001

This allows independent control of two lamps, which can otherwise only be implemented at a significantly higher cost by using classical series circuits. With the ES1000W-AF8 the existing installation only needs to be extended. Only the added lamp must be newly connected. The small dimensions allow the ES1000W-AF8 to be installed (using spring terminal technology) e.g. in junction boxes, baldachines etc. The ES1000W-AF8 electronic series switch is suitable for energy saving.

## Appropriate use

The intended use according to the application conditions of the ES1000W-AF8 according to DIN EN 60699-2-1.

The ES1000W-AF8 is intended for installation in lighting systems. The ES1000W-AF8 is suitable for use with resistive loads (filament lamps, high voltage halogen lamps), energy-saving lamps, LED lamps with associated driver, low voltage halogen lamps with associated driver, fluorescent lamps with electronic ballast and fluorescent lamps with inductive circuits or inductively compensated circuits. The device may not be used in circuits having orientation lights (neon lamp) combined with energy saving lamps.

Use for purposes other than those specified is not permitted. The overall product must not be modified or converted in any way. Modifications may lead to damage to the product and, in addition, may also result in hazards such as short-circuits, fire, electric shock, etc. All personal injury and material damage caused by inappropriate usage is the responsibility of the operator of the product and not of the manufacturer of the product.

Please note that incorrect operation or connection of the product is outside of our scope of influence. Consequently, we accept no liability whatsoever for damage caused in this way.

# Installation instructions Electronic Series Switch ES1000W-AF8 


#### Abstract

Notes:

The currently set switching state can change after a power cut! Make sure that the terminal connections in the circuit are secure!


Possible causes of NON function:

- N-connection not contacting
- Bouncing light switch
- Capacitances between N \& L

1. Starting situation: Normal off circuit

In the existing off circuit (Figure 1) an additional lamp (lamp B) is to be installed and is to be separately switchable (while retaining the existing off switch and the existing electrical installation). This is very easy with the ES1000W-AF8 as explained below.

## Circuit version SV1

## 2. Circuit extension using the ES1000W-AF8 in switch-on mode

For installing the ES1000W-AF8, the circuit shown in Figure 1 remains unchanged. However, the circuit is extended by wiring the ES1000W-AF8 in accordance with Figure 2 - Switching on. The use of a 4-way plug terminal is recommended for the N connection. Lamp A is used most of all since this is always switched on when the switch is actuated.

### 2.1. Function of the ES1000W-AF8 in switch-on mode

Closing the switch switches on lamp A. Lamp B remains switched off. When actuating the switch again (switching off and on again within 1-2 sec.), lamp A remains switched on and lamp B is switched on at the same time.

Actuating the switch once again (switching off and on again within 1-2 sec.) switches off lamp B again. Lamp A remains on.

If the switch remains switched off for longer than 2 seconds, the ES1000W-AF8 returns to its basic state. Switching on again results in switching state 1 again, as shown in Table 1.


Figure 1


Figure 2 - Switch-on mode

| Switch-on mode | ON | OFF |
| :--- | :--- | :--- |
| 1. Regular swiching on <br> (basic state after <br> break time >2 sec.) | ON |  |
| 2. Short <br> swiching off-on <br> ( $<2$ sec.) | ON | OFF |
| 3. Short <br> swiching off-on <br> ( $<2$ sec.) <br> (swiching condition 1) | ON | OFF |
| 4. Short |  |  |
| swiching off-on |  |  |
| ( < 2 sec.) |  |  |

Table 1

## Circuit version SV2

## 3. Circuit extension using the ES1000W-AF8 in switch-off mode

For installing the ES1000W-AF8, the circuit shown in Figure 1 remains unchanged. However, the circuit is extended by wiring the ES1000W-AF8 in accordance with Figure 3 - Switching off.
The use of a 4-way plug terminal is recommended for the N connection. Lamp A is used most of all since this is always switched on when the switch is actuated.

### 3.1 Function of the ES1000W-AF8 in switch-off mode

Closing the switch switches on lamp A. Lamp B is also switched on. When actuating the switch again (switching off and on again within 1-2 sec.), lamp A remains switched on and lamp B is switched off at the same time.
Actuating the switch once again (switching off and on again within 1-2 sec.) switches on lamp B again. Lamp A remains on.
If the switch remains switched off for longer than 2 seconds, the ES1000W-AF8 returns to its basic state. Switching on again results in switching state 1 again, as shown in Table 2.

## Circuit version SV3

## 4. Circuit extension using the ES1000W-AF8 in switch-over mode

For installing the ES1000W-AF8, the circuit shown in Figure 1 must be changed. The wiring for this is depicted in Figure 4 - Switching over.
The use of a 4-way plug terminal is recommended for the $N$ connection. The lamp that is most frequently used is to be wired to connection LS1 because this is the first to be switched on when the switch is actuated. This is lamp B in the example.

### 4.1. Function of the ES1000W-AF8 in switch-over mode

Closing the switch switches on lamp B. Lamp A remains switched off. When actuating the switch again (switching off and on again within 1-2 sec.), lamp $B$ is switched off and lamp A is switched on at the same time.
Actuating the switch once again (switching off and on again within 1-2 sec.) switches off lamp A again. Lamp B is switched on.
If the switch remains switched off for longer than 2 seconds, the ES1000W-AF8 returns to its basic state. Switching on again results in switching state 1 again, as shown in Table 3.


Figure 3 - Switch-off mode

| Switch-on mode | $\begin{aligned} & \mathbb{1} \\ & \frac{0}{E} \\ & \underset{J}{0} \end{aligned}$ | $\begin{aligned} & \infty \\ & \stackrel{0}{\varepsilon} \\ & \stackrel{0}{0} \end{aligned}$ |
| :---: | :---: | :---: |
| 1. Regular swiching on (basic state after break time > 2 sec .) | ON | ON |
| 2. Short swiching off-on ( < 2 sec .) | ON | OFF |
| 3. Short swiching off-on ( < 2 sec .) (swiching condition 1) | ON | ON |
| 4. Short swiching off-on ( < 2 sec .) | ON | OFF |

Table 2


Figure 4 - Switch-over mode

| Switch-on mode | $\begin{aligned} & \text { « } \\ & \stackrel{0}{E} \\ & \stackrel{\pi}{3} \end{aligned}$ |  |
| :---: | :---: | :---: |
| 1. Regular swiching on (basic state after break time $>2 \mathrm{sec}$.) | OFF | ON |
| 2. Short swiching off-on ( $<2 \mathrm{sec}$.) | ON | OFF |
| 3. Short swiching off-on ( < 2 sec .) (swiching condition 1) | OFF | ON |
| 4. Short swiching off-on ( < 2 sec .) | ON | OFF |

Table 3

# Guarantee conditions Electronic Series Switch ES1000W-AF8 

Thank you for choosing this product. We are sure that your new device will provide you with a lot of enjoyment in the coming years. Plättner Elektronik GmbH (PE) provides a guarantee of 24 months from the date of purchase for this product. If a change of ownership takes place due to the product being sold on, the guarantee shall be based on the remaining guarantee period from the date of initial purchase. The validity period varies from country to country

## Manufacturer's guarantee conditions

1. The guarantee is only valid in combination with the original invoice, sales receipt or a confirmation of the guarantee period from PE. The repair or replacement of the device or of individual parts does not result in an extension or renewal of the guarantee period.
2. The decision to repair or replace a faulty device or component parts shall be taken at the sole discretion of PE. The relevant replaced device or component part shall then become the property of PE.
3. PE attaches great importance to good service which ensures that repairs are to be carried out quickly and reliably. For this reason, all guarantee repairs shall be carried out by PE itself or by appointed specialist dealers. If repairs are carried out during the guarantee period by parties who are not authorised or appointed, the guarantee shall become null and void.
4. After the end customer has reported the fault, the faulty device shall be replaced with a comparable model once PE has granted its approval for replacement. This replacement device becomes the property of the end customer only after the faulty device has been handed over and only if the guarantee claim is not rejected within 4 weeks of the faulty device being handed over to PE. The faulty device is to be handed over without delay, within five (5) working days at the latest. Otherwise the end customer shall be charged for the replacement device in accordance with the current end consumer price.

## Safety requirements

Always disconnect the power supply before carrying out installation or maintenance. Avoid high ambient temperatures. The safety information and technical specifications must be strictly adhered to.

The installation must be performed by trained personnel, e.g. employees of an electrical installation company (electricians as per DIN VDE 1000-10).
depending on the locally applicable laws. For example, a period of just one (1) year applies in Great Britain. In the case of products with a guarantee period of over two (2) years, guarantee claims or other questions relating to the guarantee that arise after the two (2) years have expired should be addressed directly to PE or its distributors. The address and telephone number can be found at www.plaettner.com.
5. The guarantee from PE does not include the following items:
a) Routine checking, maintenance and repair, and the replacement of wearing parts
b) Faults that have resulted from incorrect operation or incorrect installation
c) Damage caused by storms, water, fire, surge voltage, force majeure or war, incorrect connection to the power supply, insufficient ventilation or other causes that PE has no influence upon.
d) Use of the product outside of the scope of the product specification (only to be used for lighting purposes)
e) Incorrect mounting or installation
f) Damage caused by transport or by inappropriate packaging
g) Products with no series number or where the series number has been changed, deleted, removed or otherwise rendered illegible. The guarantee period has no bearing whatsoever on customers' statutory guarantee entitlements or other contractual entitlements from dealers and does not limit these entitlements in any manner.

In the case of complaints or claims regarding faults that fall within the scope of these guarantee exclusions, PE reserves the right to charge the customer for any costs that may arise from these complaints or claims.
PE and its distributors are not liable - to the extent permitted by law - for direct or indirect damages or losses. Claims for compensation for damages based on this guarantee are excluded to the extent permitted by law.

Protect the product against dust, moisture and splashes. The ES1000W-AF8 may only be installed in other housings such as baldachines or junction boxes etc.
During installation, care must be taken to ensure that the connection wires are not subjected to mechanical stresses. When using the device in existing circuits, ensure that the previous installation is in a standards-conformant state (non-intact terminals, bouncing switches). The unblocking mechanism must be used when removing the wires.

## Technical data

## Electronic Series Switch ES1000W-AF8

Max. total current

## Grid connection

10 A through terminal L (total for both lamps)

220V-240V AC / 50Hz

Weight

Housing dimensions

Wire cross-section
(solid wire)

Protection degree

Ambient temperature

Storage temperature

Installation

22 grams
$36 \times 32 \times 20 \mathrm{~mm}(\mathrm{LxWxH})$
$\max .1,5 \mathrm{~mm}^{2}$

IP 20

Up to $+25^{\circ} \mathrm{C}\left(\right.$ max. $\left.35^{\circ} \mathrm{C}\right)$
$0^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$

The ES1000W-AF8 can be wired into the 10A circuit without an additional fuse.
$<0.5 \mathrm{~W}$

Operating consumption (only when switched on)

## Disposal

This electrical device must NOT be disposed of in the household waste. To dispose of it in a proper manner, please contact the public waste collection points in your municipality. Your municipal authority will provide information on the location of these collection points, on any applicable limits on the amount of waste that they will accept each day/month/year and on the costs that may apply if the waste is collected from your home.
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