



# Impulse switches

ES12DX-UC ES12-200-UC ES12-110-UC

Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock!

Temperature at mounting location: -20°C up to +50°C.

Storage temperature: -25°C up to +70°C. Relative humidity:

annual average value <75%.

# 230 V LED lamps up to 200 W (ES12DX-UC up to 600 W), incandescent lamp load up to 2000 W. No standby loss.

Modular devices for DIN-EN 60715 TH35 rail mounting. 1 module = 18 mm wide, 58 mm deep.

Either universal control voltage 8 to 230 V UC at the control input +A1/A2 or 230 V with glow lamp current up to 5 mA at the control input  $+ \oplus + (L)/-A2(N)$ .

The simultaneous use of two potentials at the control inputs is not permitted.

The relay contact can be open or closed when putting into operation. It will be synchronised at first operation.

#### ES12DX-UC:

1 NO contact potential free 16 A/250 V AC. With the Eltako-Duplex technology (DX) the normally potential-free contacts can still switch in zero passage when switching 230 V AC 50 Hz and therefore drastically reduce wear. Simply connect the neutral conductor to the terminal (N) and L to 1(L) for this. This gives a standby consumption of only 0.1 Watt.

If the contact is used for controlling switching devices which do not perform zero passage switching themselves, (N) should not be connected because the additional closing delay otherwise causes the opposite effect. Same terminal connection as the electromechanical impulse switch S12-100-.

#### ES12-200-UC:

# 2 NO contacts potential free 16 A/250 V AC.

Maximum current across both contacts 16 A for 230 V.

Same terminal connection as the electromechanical impulse switch S12-200-.

#### ES12-110-UC:

# 1 NO contact + 1 NC contact potential free 16 A/250 V AC.

Same terminal connection as the electromechanical impulse switch S12-110-.

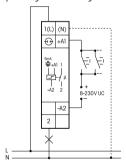
If one of these impulse switches is in a circuit, which is monitored by a FR12-230V mains disconnection relay, no additional base load is required. However, the monitoring voltage of the FR12-230V must be set to 'max'.

ES12DX-UC: Then control only through A1-A2.

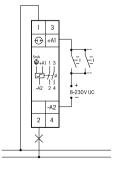
#### **Typical connections**

Either universal control voltage 8 to 230 V UC

**ES12DX-UC:** If N is connected, the zero passage switching is active.

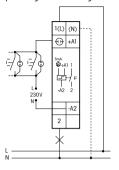


#### ES12-200/110-UC

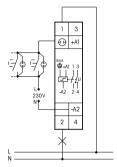


**or** control voltage 230 V with glow lamp current up to 5 mA

**ES12DX-UC:** If N is connected, the zero passage switching is active.



#### ES12-200/110-UC



#### Technical data

| 230 V LED lamps                         | up to 200 W 4)         |
|---|------------------------|
|   | with DX up to 600 W 4) |
|   | I on ≤ 120 A/5 ms      |
| Control voltage AC                      | 8253 V                 |
| Control voltage DC                      | 10230 V                |
| Rated switching capac                   | city 16 A / 250 V AC   |
| Incandescent lamp loa                   | ad and 2000 W          |
| halogen lamp load 1) 230 V              |                        |
| Fluorescent lamp load with KVG* 1000 VA |                        |
| in lead-lag circuit or                  |                        |
| non compensated                         |                        |
| Fluorescent lamps wit                   |                        |
| shunt-compensated or wih EVG*           |                        |
| Compact fluorescent lamps with EVG*     |                        |
| and energy saving lamps                 |                        |

\* EVG = electronic ballast units; KVG = conventional ballast units

15x7 W, 10x20 W<sup>2)</sup>

I on  $\leq$  70 A/10 ms<sup>3)</sup>

none

1) For lamps with 150 W max.

ES12DX-UC

Standby loss

ES12-200/110-UC

- 2) If zero passage switching is activated, otherwise same as for ES12-200/110-UC.
- For electronic ballast gears a 40fold inrush current has to be calculated. For steady loads of 1200 W or use the current-limiting relay SBR12.
- <sup>4)</sup> Due to different lamp electronics and depending on the manufacturer, the maximum number of lamps may be limited, especially if the wattage of the individual lamps is very low (e.g. with 2W LEDs).



The strain relief clamps of the terminals must be closed, that means the screws must be tightened for testing the function of the device. The terminals are open ex works.

## Must be kept for later use!

We recommend the housing for operating instructions GBA14.

## Eltako GmbH

D-70736 Fellbach

#### **Technical Support English:**

+49 711 94350025

⊠ technical-support@eltako.de

eltako.com

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