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Impulse switch
ES12DX/110-240V

## Only skilled electricians may install this

 electrical equipment otherwise there is the risk of fire or electric shock!Temperature at mounting location: $-20^{\circ} \mathrm{C}$ up to $+50^{\circ} \mathrm{C}$.
Storage temperature: $-25^{\circ} \mathrm{C}$ up to $+70^{\circ} \mathrm{C}$. Relative humidity:
annual average value $<75 \%$.
1 NO contact potential free $16 \mathrm{~A} / 250 \mathrm{~V} \mathrm{AC}$, 230 V LED lamps up to 600 W , incandescent lamp load up to 2000 W . No standby loss.
Modular device for DIN-EN 60715 TH35 rail mounting. 1 module $=18 \mathrm{~mm}$ wide, 58 mm deep.
With the patented 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 $1(\mathrm{~L})$ for this. This results in an 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. Controlvoltage $110 \mathrm{~V} \mathrm{AC}-240 \mathrm{~V} \mathrm{AC}$ at the control input A1/A2.
Very low switching noise.
No permanent power supply necessary, therefore no standby loss.
State-of-the-art hybrid technology combines advantages of nonwearing electronic control with high capacity of special relays.

## By using a bistable relay coil power loss

 and heating is avoided even in the on mode.The relay contact can be open or closed when putting into operation. It will be synchronised at first operation.
Same terminal connection as the electro-
mechanical impulse switch S12-100-
If this impulse switch 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'. Control only through A1-A2.

## Typical connection

If N is connected, the zero passage switching is active.


Technical data

| 230 V LED lamps | up to $200 \mathrm{~W}^{4)}$ <br> with DX up to $600 \mathrm{~W}^{4)}$ <br> I on $\leq 120 \mathrm{~A} / 5 \mathrm{~ms}$ |
| :--- | ---: |
| Control voltage $110-240 \mathrm{~V} \mathrm{AC}$ |  |
| Rated switching capacity $16 \mathrm{~A} / 250 \mathrm{~V} \mathrm{AC}$ |  |
| Incandescent lamp load and <br> halogen lamp load 1) 230 V | 2000 W |
| Fluorescent lamp load with KVG* <br> in lead-lag circuit or | 1000 VA |
| non compensated |  |
| Fluorescent lamps with KVG* <br> shunt-compensated or wih EVG* | 500 VA |
| Compact fluorescent lamps <br> with EVG* and energy saving lamps | $10 \times 20 \mathrm{~W}^{2)}$ |
| Standby loss | none |

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

1) For lamps with 150 W max.
2) If zero passage switching is activated.
${ }^{3)}$ For electronic ballast gears a 40 fold inrush current has to be calculated. For steady loads of 1200 W or use the current-limiting relay SBR12.
3) 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 2 W 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.

Manuals and documents in further languages:

https://eltako.com/redirect/ ES12DX*110-240V


Must be kept for later use!
We recommend the housing for operating instructions GBA14.

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