

- ▶ Staircase lighting timer electronic
- ▶ Switch-off warning
- ▶ Retrigger, time extension function programmable
- ▶ Energy saving function
- ▶ Impulse switch mode selectable
- ▶ Low switching noise
- ▶ High switching capacity, 80A peak inrush current
- ▶ Automatic 3/4 - wire detection
- ▶ Push-button glow lamp load up to 100mA
- ▶ Width 17.5 mm
- ▶ Installation design



Technical data

1. Functions

Electronic staircase lighting timer with switch-off warning. The control input allows the connection of pushbuttons with a total glow lamp load up to 100mA and enables the application in 3- or 4-wire circuits. The unit can be retriggered via the connected pushbuttons. A long keypress will switch off the light (energy saving function). A fast sequence of pushes (pumping) will extend the period to a multiple of the selected value. Depending upon distinct type, the following operating methods can be selected by the controls on the unit:

- ☀ TW Automatic timer with switch-off warning
- ⌚ T Automatic timer without switch-off warning
- 💡 1 Steady light (ON)
- ⬛ 0 Switch-off
- ⏏ P Impulse switch mode without time function (only types with option P)
- ⏏ PN Impulse switch mode power fail latch (only types with option PN)

Function sets on distinct types are according to table ordering information or printing on the unit.

2. Time range

Time	Adjustment range
	0,5 - 12min (in function T, TW)

3. Indicators

Green LED U ON:	indication of supply voltage
Yellow LED ON/OFF:	indication of relay output

4. Mechanical design

Self-extinguishing plastic housing, IP rating IP 40
 Mounted on DIN-rail TS 35 according to EN 50022
 Mounting position: any
 Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20
 Tightening torque: max. 1Nm
 Terminal capacity:
 1 x 0.5 to 2.5mm² with/without multicore cable end
 1 x 4mm² without multicore cable end
 2 x 0.5 to 1.5mm² with/without multicore cable end
 2 x 2.5mm² flexible without multicore cable end

5. Input circuit

Supply voltage:	terminals L - N
Nominal voltage:	see table ordering information or printing on the unit
Tolerance:	-15% to +10%
Rated consumption:	2VA (1,0W)
Rated frequency:	AC 48 to 63Hz
Duty cycle:	100%
Reset time:	500ms
Hold-up time:	-
Residual ripple for DC:	-
Drop out voltage:	>30%
Overvoltage category:	III (according to IEC 60664-1)
Rated surge voltage:	4kV

6. Output

1 normally open contact	terminals L - 18
Rated voltage:	250V AC
Switching capacity (distance <5mm):	10A continuous current
Switching capacity (distance >5mm):	16A continuous current
Start-up peak (20ms):	80A
Mechanical life:	30 x 10 ⁶ operations
Electrical life:	
Resistive load:	10 ⁵ operations at 16A 250V
Lamp load:	80.000 operations at 1000W 250V

7. Control input B1

Connection not potential free:	pushbutton B1-N (3-conductor circuit) pushbutton B1-L (4-conductor circuit)
Glow lamp load:	max. 100mA parallel to the pushbuttons
Overload protection:	yes, electronic

8. Additional control input (only types with option C)

Connection:	control voltage on terminals C1(+)-C2
Voltage range:	8...230V AC/DC
Galvanic isolation:	yes, basic isolation
Overvoltage category:	III. (according to IEC 60664-1)
Rated surge voltage:	4kV

9. Accuracy

Base accuracy:	±5% of maximum scale value
Adjustment accuracy:	<15% of maximum scale value
Repetition accuracy:	<2%
Voltage influence:	-
Temperature influence:	≤1%

10. Ambient conditions

Ambient temperature:	-25 to +55°C (according to IEC 68-1)
Storage temperature:	-25 to +70°C
Transport temperature:	-25 to +70°C
Relative humidity:	15% to 85% (according to IEC 721-3-3 class 3K3)
Pollution degree:	2, if built-in 3 (according to IEC 664-1)
Vibration resistance:	10 to 55 Hz 0.35mm (according to IEC 68-2-6)
Shock resistance:	15g 11ms (according to IEC 68-2-27)

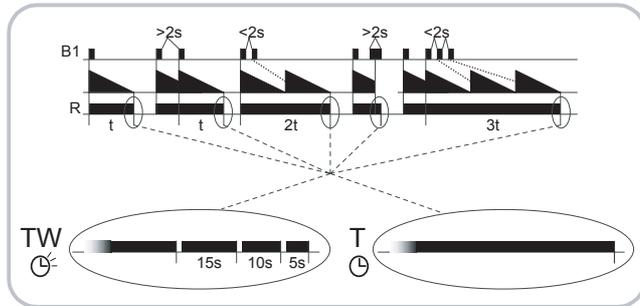
11. Weight

Single packing:	106g
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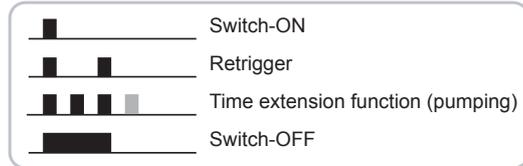
Functions

Function automatic timer (T, TW)

After the pushbutton at B1 has been pressed, the output relay R closes (terminals L-18) and the set interval t begins. If the pushbutton is pressed again before the interval t has expired, the interval begins again (restart function complies with EN 60669-2-3). Rapid, multiple pressing of the pushbutton (pumping) adds 2, 3 or more time intervals to extend the time up to 60min. Prolonged pressure on the button ($>2s$) aborts the interval running and switches the relay off (energy saving function). In the TW mode the device provides a switch-off warning (in accordance with DIN 180-158-2) by generating short pulses (flashing) at 30s, 15s and 5s prior to switch-off.



Operating possibilities at B1 in mode T and TW:



The additional control input C1-C2 can be used in the T and TW modes to control the staircase lighting timer with a voltage of 8 to 230V AC/DC. This input can be used to start and restart the cycle. It cannot be used for switch-off (energy saving function) or for programming long intervals (pumping).

Impulse switch mode (P), (PN):

In this mode, every keypress toggles the output relay R (flip-flop). In function P, the output relay R remains in off-position, whenever the supply voltage is applied.

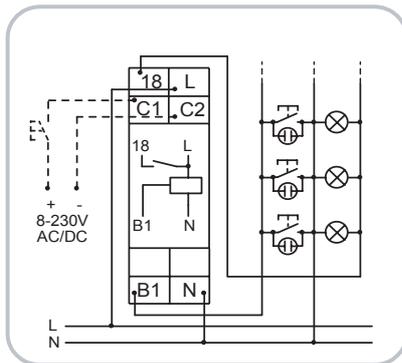
In function PN, the output relay R switches into on-position after applying the supply voltage U, if the output relay R was in on-position last before power failure.

The output relay R switches into on-position, if a short voltage impulse ($<2s$) is applied to the additional control input (C1-C2). (central ON) A longer voltage impulse ($>2s$) opens the output relay R. (central OFF)

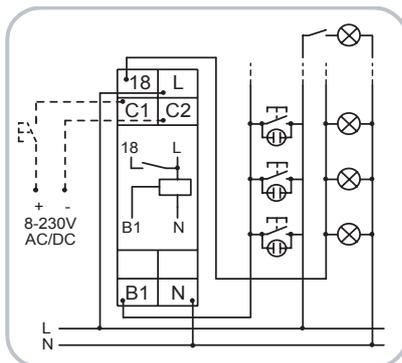


Connections

3-wire-circuit



4-wire-circuit with attic illumination



Ordering information

Types	Functions	Additional control contacts	Supply voltage	Part Nr. (PQ 1)
E1ZTP 230V AC	TW, 1, 0, P	no	230V AC	110301
E1ZTPNC 230V AC	T, TW, 1, 0, P, PN	C1-C2	230V AC	110300

Dimensions

