

**TLZ12-
TLZ12D-
TLZ61NP-
NLZ12NP-**



MAKE A CONFIDENT STRIDE THROUGH THE STAIRWELL WITH ELTAKO STAIRCASE TIME SWITCHES.

Staircase time switches and off-delay timers

| | |
|--|----------------|
| Selection table staircase time switches and off-delay timers | 15 - 2 |
| Staircase time switch TLZ12-8plus The Standard | 15 - 3 |
| Staircase time switch TLZ12-8 The Simple | 15 - 4 |
| Staircase time switch TLZ12G-230V+UC The Noiseless | 15 - 5 |
| Digital settable staircase time switch TLZ12D-plus The Allrounder | 15 - 6 |
| Staircase time switch TLZ12-9 for older installations | 15 - 7 |
| Staircase time switch TLZ61NP-230V | 15 - 8 |
| Staircase time switch TLZ61NP-230V+UC | 15 - 9 |
| Technical data staircase time switches | 15 - 10 |
| Off-delay timer NLZ12NP-230V+UC | 15 - 11 |
| Off-delay timer NLZ61NP-230V | 15 - 12 |
| Off-delay timer NLZ61NP-UC | 15 - 12 |
| Technical data off-delay timer | 15 - 13 |

THE COMPLETE RANGE

Incandescent lamps and energy saving lamps ESL are replaced by LED lamps. As the first leading manufacturer of staircase time switches, we produce devices with optimisation for that since 2010. TLZ12G up to 400 Watt!

When these staircase time switches are in ESL setting, the switch-off early warning by flickering function does not reduce the service life of the energy saving lamps. The warning function which prevents sudden darkness fully complies with the stipulations in DIN 18015-2.

In addition, the lighting is immediately switched on again after a power failure if the set time has not yet elapsed, to increase security.

- The Standard TLZ12-8plus**
- The Simple TLZ12-8**
- The Noiseless TLZ12G-230V+UC**
- The Allrounder TLZ12D-plus**

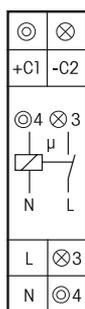
| Page | 15-3 | 15-4 | 15-5 | 15-6 | 15-7 | 15-8 | 15-9 | 15-11 | 15-12 | 15-12 | |
|---|-------------------|-------------|---------|----------------|-------------|------------|--------------|-----------------|-----------------|--------------|------------|
| | pictograms | TLZ12-8plus | TLZ12-8 | TLZ12G-230V+UC | TLZ12D-plus | TLZ12-9 | TLZ6INP-230V | TLZ6INP-230V+UC | NLZ6INP-230V+UC | NLZ6INP-230V | NLZ6INP-UC |
| Modular device for mounting on DIN rail EN 60715 TH35, number of modules 18mm each | 1 | 1 | 1 | 1 | 1 | | | 1 | | | |
| Built-in device for installation (e.g. flush-mounting box) | | | | | | ■ | ■ | | ■ | ■ | |
| Incandescent lamp load W | 2300 | 2000 | 400 | 2300 | 2300 | 2000 | 2000 | | | | |
| For energy saving lamps ESL* | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | |
| For 230V LED lamps | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | |
| Switch-off early warning function switchable ¹⁾ | ■ | | ■ | ■ | ■ | ■ | ■ | | | | |
| Variable time range up to | 30 min | 12min | 30 min | 99 min | 12 min | 12 min | 12 min | 12 min | 12 min | 12 min | |
| Low standby loss  | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| 230V control voltage | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| Universal control voltage (additionally) 8 to 230V UC  | ■ | | ■ | ■ | | | | ■ | ■ | ■ | |
| Glow lamp current mA  | 50 | 50 | 50 | 50 | 50 | 50 | 50 | | | | |
| Double connections pushbutton and lamp | ■ | ■ | ■ | | | | | | | | |
| Single connections below | | | | | ■ | | | | | | |
| Automatic detection 3-/4-wire circuit | ■ | ■ | ■ | ■ | | ■ | ■ | | | | |
| 3-wire circuit, without attic lighting | | | | | ■ | | | | | | |
| Resettable | ■ | ■ | ■ | ■ | | ■ | ■ | | | | |
| Permanent light and switch-off logics with pushbutton switchable | ■ | | ■ | ■ | | ■ | ■ | | | | |
| Incrementing ²⁾ | ■ | | ■ | ■ | | ■ | ■ | | | | |
| Separate continuous light switch | ■ | ■ | ■ | ■ | ■ | | | | | | |
| Additional input for motion control | | | | ■ | | | | | | | |
| With multifunction: TLZ, ESV, ES and ER | ■ | | ■ | ■ | | without ER | without ER | ■ | | | |
| Bistable relay  | ■ | | | ■ | ■ | ■ | ■ | | | | |
| Zero passage switching  | ■ | | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | |

* ESL = abbr. for energy saving lamps

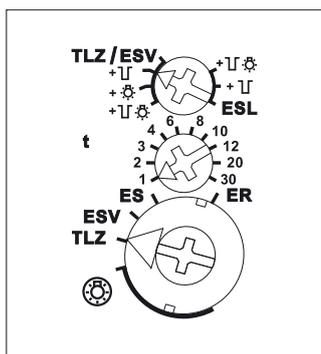
¹⁾ As stipulated in DIN 18015-2 under 4.2 the following should be taken into account: For lighting systems in staircases, corridors, arcades or elevator areas it is recommended to use the switch off early warning function to prevent sudden darkness. If the switch-off early warning function is active, the light starts flickering approx. 30 seconds before time-out and is repeated three times at decreasing time intervals.

²⁾ Time can be extended: Within the first second after switching on or resetting the time can be extended by pressing the pushbutton repeatedly up to three times (incrementing). Each operation increments the set time once.

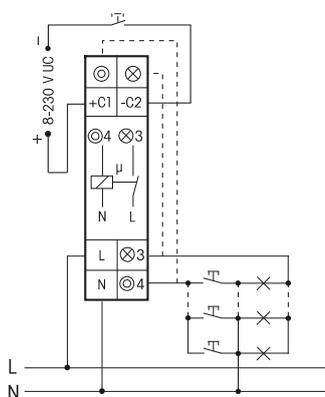
STAIRCASE TIME SWITCH TLZ12-8PLUS THE STANDARD



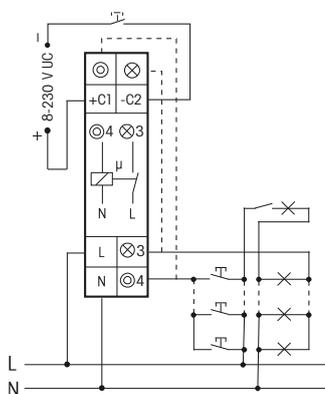
Function rotary switches



Typical connections



3-wire circuit, resettable.



4-wire circuit with attic lighting, resettable.

Technical data page 15-10.
Housing for operating instructions GBA12,
see accessories, chapter Z.

Recommended retail prices excluding VAT.

TLZ12-8plus



1 NO contact not potential free 16 A/250 V AC. Incandescent lamps up to 2300 W, energy saving lamps ESL and LED lamps up to 200 W. Control voltage 230 V and/or 8..230 V UC. Switch-off early warning and permanent light by pushbutton switchable. Standby loss 0.7 watt only. With ESL optimisation and multifunction.

Modular device for DIN EN 60715 TH35 rail mounting.

1 module = 18 mm wide, 58 mm deep.

Zero passage switching to protect contacts and lamps. This prolongs in particular the lifetime of energy saving lamps.

The noiseless electronics do not even bother the sensitive ear - unlike many synchronous motors with mechanical gears.

By using a bistable relay coil power loss and heating is avoided even in the on mode.

The switched consumer may not be connected to the mains before the short automatic synchronisation after installation has terminated.

Control voltage, supply voltage and switching voltage 230 V. In addition electrically isolated universal voltage from 8 to 230 V UC. 3-wire and 4-wire circuits, resettable, with attic lighting if 4-wire circuit.

Automatic detection of the method of connection.

Glow lamp current up to 50 mA, dependent on the ignition voltage of the glow lamps.

Precise variable time range from 1 to 30 minutes, settable by minute scale.

Permanent light switch with the big rotary switch.

If the function TLZ is set, the lighting is switched on again after a power failure provided the set time has not yet elapsed.

With double connections for pushbutton and lamp in order to connect either above or below or only below.

If switch-off early warning function is switched on, the light starts flickering approx.

30 seconds before time-out and is repeated three times at decreasing time intervals.

If permanent light by pushbutton is switched on, permanent light can be switched on by pressing

the pushbutton longer than 1 second. This is switched off automatically after

60 minutes or by pressing the pushbutton longer than 2 seconds.

If both switch-off early warning function and permanent light by pushbutton are switched on, the switch-off early warning function is activated before the permanent light switches off.

When energy saving lamps ESL are completely or partially switched, then set the switch-off early warning and the permanent light by pushbutton on the right hand side of the rotary switch.

If the function TLZ is selected **the time can be extended** within the first second after switching on or resetting **by pressing the pushbutton repeatedly up to three times** (incrementing). Each momentary-contact control increments the set time once.

With multifunction: The following functions can be selected optionally: **ES** (impulse switch), **ER** (relay), **ESV** (impulse switch with release delay).

If the function ESV is set the time ranges (t), which can be set with the middle rotary switch are as follows:

1 = 2 min, 2 = 5 min, 3 = 10 min, 4 = 15 min, 6 = 25 min, 8 = 35 min, 10 = 45 min, 12 = 60 min, 20 = 90 min,

30 = 120 min. In this function the impulse switch automatically disconnects after the set delay is timed

out, if a manual OFF command has not been given. Switch-off early warning and permanent light by push-

button can also be switched on in this position. Forgotten permanent light is switched off after 2 hours.

☐ = Switch-off early warning function

☼ = Permanent light by pushbutton

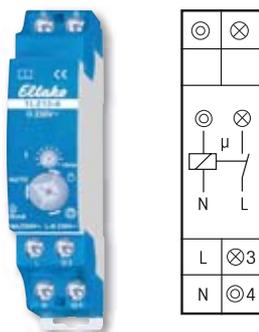
☐☼ = Switch-off early warning function and permanent light by pushbutton

⊕ = Permanent light switched on (all click-stop positions)

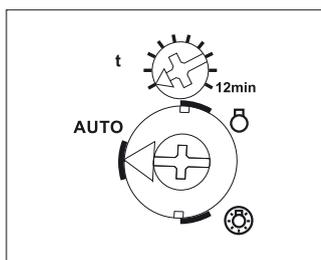
TLZ/ESV/ES/ER = The set function is active

| | | | |
|--------------------|-----------|-------------------|--------------------|
| TLZ12-8plus | 1 NO 16 A | EAN 4010312401613 | 42,90 €/pc. |
|--------------------|-----------|-------------------|--------------------|

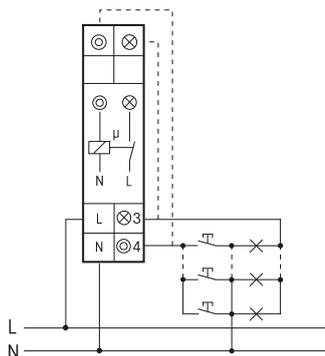
STAIRCASE TIME SWITCH TLZ12-8 THE SIMPLE



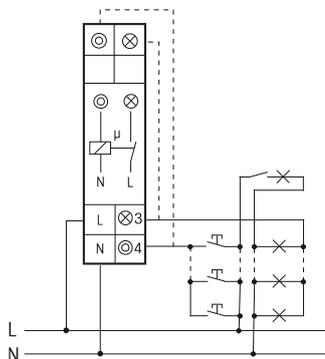
Typical connections



Typical connections



3-wire circuit, resettable.



4-wire circuit with attic lighting, resettable.

Technical data page 15-10.
Housing for operating instructions GBA12,
see accessoires, chapter Z.

TLZ12-8



1 NO contact not potential free 16A/250V AC. Incandescent lamps up to 2000W, energy saving lamps ESL and LED lamps up to 100W, without switch-off early warning. Standby loss 0.7 watt only.

Modular device for DIN EN 60715 TH35 rail mounting.

1 module = 18 mm wide, 58 mm deep.

The noiseless electronics do not even bother the sensitive ear - unlike many synchronous motors with mechanical gears.

230 V control voltage, supply voltage and switching voltage.

Variable time range from approx. 0.2 to 12 minutes.

Glow lamp current up to 50 mA, dependent on the ignition voltage of the glow lamps.

Own permanent light switch ⊕ with the big rotary switch.

3-wire and 4-wire circuits, resettable, with attic lighting if 4-wire circuit.

Automatic detection of the method of connection.

Without switch-off early warning function and without zero passage switching.

With double connections for pushbutton and lamp in order to connect either above or below or only below.

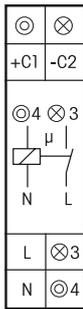
⊖ = Function switched off

⊕ = Permanent light switched on

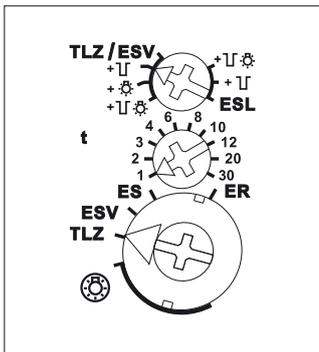
AUTO = The set function is active

| | | | |
|---------|-----------|-------------------|-------------|
| TLZ12-8 | 1 NO 16 A | EAN 4010312401637 | 32,00 €/pc. |
|---------|-----------|-------------------|-------------|

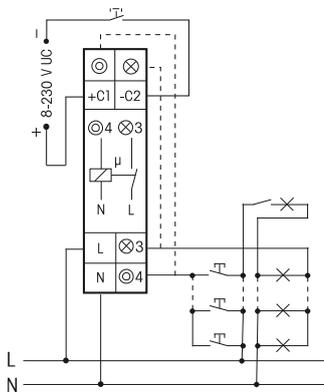
**STAIRCASE TIME SWITCH TLZ12G-230V+UC
THE NOISELESS**



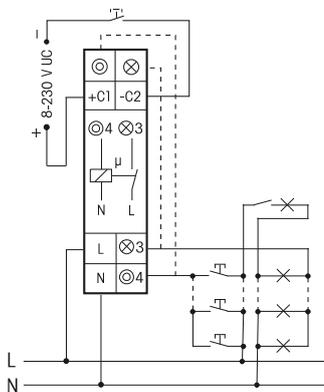
Function rotary switches



Typical connections



3-wire circuit, resettable.



4-wire circuit with attic lighting, resettable.

Technical data page 15-10.
Housing for operating instructions GBA12, see accessories, chapter Z.

Recommended retail prices excluding VAT.

TLZ12G-230V+UC



Noiseless solid-state relay not potential-free 400 W, also energy saving lamps ESL and LED lamps. Switch-off early warning and pushbutton permanent light switchable. Standby loss 0.4 watt only. With ESL optimisation and multifunction.

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

Zero passage switching to protect lamps. This prolongs in particular the lifetime of energy saving lamps. The noiseless electronics and zero passage switching do not even bother the sensitive ear - unlike many synchronous motors with mechanical gears.

230 V control voltage and additionally 8 to 230 V UC electrically isolated universal control voltage. 230 V supply voltage and switching voltage. 3-wire and 4-wire circuits, resettable, with attic lighting if 4-wire circuit. **Automatic detection of the method of connection.**

Glow lamp current up to 50 mA, dependent on the ignition voltage of the glow lamps.

Precise variable time range from 1 to 30 minutes, settable by minute scale.

Permanent light switch with the big rotary switch.

If the function TLZ is set, the lighting is switched on again after a power failure provided the set time has not yet elapsed.

With double connections for pushbutton and lamp in order to connect either above or below or only below. **If switch-off early warning function is switched on** the light starts flickering approx. 30 seconds before time-out and is repeated three times at decreasing time intervals.

If pushbutton permanent light is switched on permanent light can be switched on by pressing pushbutton longer than 1 second. This is switched off automatically after 60 minutes or by pressing pushbutton longer than 2 seconds.

If both switch-off early warning function and permanent light pushbutton are switched on, the switch-off early warning function is activated before the permanent light switches off.

When energy saving lamps ESL are completely or partially switched, then set the switch-off early warning and the pushbutton permanent light on the right hand side of the rotary switch.

If the function TLZ is selected **the time can be extended** within the first second after switching on or resetting **by pressing the pushbutton repeatedly up to three times** (incrementing). Each momentary-contact control increments the set time once.

With multifunction: the following functions can be selected optionally: ES (impulse switch), ER (relay), ESV (impulse switch with release delay).

If the function ESV is set the time ranges (t) which can be set with the middle rotary switch are as follows: 1 = 2 min, 2 = 5 min, 3 = 10 min, 4 = 15 min, 6 = 25 min, 8 = 35 min, 10 = 45 min, 12 = 60 min, 20 = 90 min, 30 = 120 min. In this function the impulse switch automatically disconnects after the set delay is timed out, if a manual OFF command has not been given. Switch-off early warning and pushbutton permanent light can be switched on additionally in this position as well. Forgotten permanent light is switched off after 2 hours.

⏏ = Switch-off early warning function

⏏ = Permanent light by pushbutton

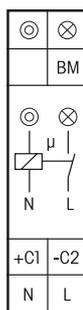
⏏ = Switch-off early warning function and permanent light by pushbutton

⊕ = Permanent light switched on (all click-stop positions)

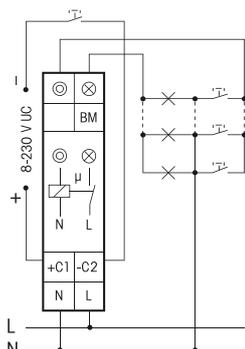
TLZ/ESV/ES/ER = The set function is active

| | | | |
|-----------------------|--------------------------|-------------------|--------------------|
| TLZ12G-230V+UC | Solid state relays 400 W | EAN 4010312401460 | 53,70 €/pc. |
|-----------------------|--------------------------|-------------------|--------------------|

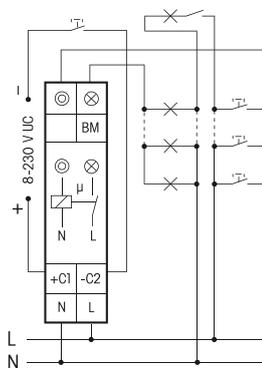
DIGITAL SETTABLE STAIRCASE TIME SWITCH TLZ12D-PLUS THE ALLROUNDER



Typical connections



3-wire circuit, resettable.



3-wire circuit, resettable.

TLZ12D-plus



1 NO contact not potential free 16 A/250 V AC. Incandescent lamps up to 2300 W, energy saving lamps ESL and LED lamps up to 200 W. Control voltage 230 V and/or 8..230 V UC. Switch-off early warning and permanent light by pushbutton switchable. Standby loss 0.5 watt only. With ESL optimisation and multifunction.

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

The functions and times are entered using the MODE and SET keys as described in the operating manual and indicated on the LC display. A keylock function is provided.

Zero passage switching to protect contacts and lamps. This prolongs in particular the lifetime of energy saving lamps.

The noiseless electronics do not even bother the sensitive ear - unlike many synchronous motors with mechanical gears.

By using a bistable relay coil power loss and heating is avoided even in the on mode.

The switched consumer may not be connected to the mains before the short automatic synchronisation after installation has terminated.

Control voltage, supply voltage and switching voltage 230 V. In addition electrically isolated universal voltage from 8 to 230 V UC. 3-wire and 4-wire circuits, resettable, with attic lighting if 4-wire circuit.

Automatic detection of the method of connection.

Glow lamp current up to 50 mA, dependent on the ignition voltage of the glow lamps.

Precise variable time range from 1 to 99 minutes.

Separate continuous light pushbutton with projecting SET button in the functions STS, ISO, IS and R.

With motion detector control input BM, which converts the input signal into a control impulse if the function STS is set. In this case the permanent light by pushbutton function is not active.

If the function STS is set, the lighting is switched on again after a power failure provided the set time has not yet elapsed.

The elapsed period is shown in the middle of the display. The set time flashes at the bottom edge of the display until the set period elapses. **The accrued switch-on time** is displayed there outside the elapsed time, first in hours (h), then in months (m) with 1 digit after the decimal point.

When the set time flashes but the elapsed time does not change, a control pushbutton is inhibited.

If switch-off early warning function is switched on, the light starts flickering in time variable from 10 to 50 seconds before time-out and is repeated three times at decreasing time intervals.

If permanent light by pushbutton is switched on, permanent light can be switched on by pressing the pushbutton longer than 1 second. This is switched off automatically after time variable from 0.5 to 10 hours or by pressing the pushbutton longer than 2 seconds. This function is not active at the BM input.

If both switch-off early warning function and permanent light by pushbutton are switched on, the switch-off early warning function is activated before the permanent light switches off.

If energy saving lamps are switched completely or partially, activate position 'ESL' in the menu guidance. This is indicated by a + sign next to the abbreviation for the function at the top of the display.

If the function STS is selected **the time can be extended** within the first second after switching on or resetting **by pressing the pushbutton repeatedly up to three times** (incrementing). Each momentary-contact control increments the set time once. This function is not active at the BM input.

With multifunction: Switchable to the functions **IS** (impulse switch), **R** (relay), **ISO** (impulse switch with off-delay) and **HC** (hour counter). After setting the required function, the function can be blocked. An arrow on the right of the abbreviation indicates the blocking status.

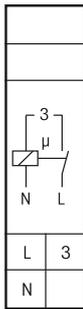
ISO: The impulse switch automatically disconnects after the set delay from 0.1 to 9.9 hours is timed out, provided there is no manual OFF command. Switch-off early warning, permanent light by pushbutton and ESL are also switchable if the function ISO is set.

HC: As long as the pushbutton input is excited, the + sign is indicated next to the abbreviation for the function HC at the top of the display. The time is added and indicated at the bottom of the display. Initially up to 9999 hours (h), then automatic change-over to months (m) each with 730 hours and display with 1 digit after the decimal point. The relay is not switched on if the function HC is set.

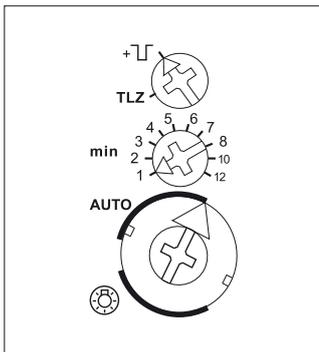
Menu guidance with selectable languages German, English or French as described in the attached operating instructions.

Technical data page 15-10.
Housing for operating instructions GBA12,
see accessories, chapter Z.

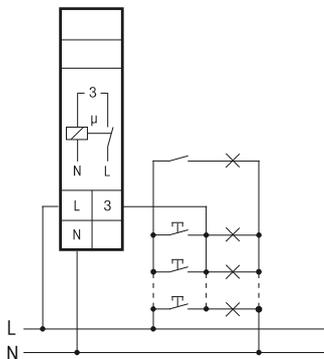
| | | | |
|-------------|-----------|-------------------|-------------|
| TLZ12D-plus | 1 NO 16 A | EAN 4010312401712 | 49,20 €/pc. |
|-------------|-----------|-------------------|-------------|



Function rotary switches



Typical connections



3-wire circuit with attic lighting, not resettable.

Technical data page 15-10.
Housing for operating instructions GBA12,
see accessoires, chapter Z.

TLZ12-9



1 NO contact not potential free 16 A/250 V AC. Incandescent lamps up to 2300 W. Energy saving lamps ESL and LED lamps up to 100 W. Switch-off early warning switchable. Standby loss 0.7 watt only.

Modular device for DIN EN 50022 rail mounting. 1 module = 18 mm wide, 58 mm deep.

Zero passage switching to protect contacts and lamps. This prolongs in particular the lifetime of energy saving lamps.

The noiseless electronics do not even bother the sensitive ear - unlike many synchronous motors with mechanical gears.

By using a bistable relay coil power loss and heating is avoided even in the onmode.

The switched consumer may not be connected to the mains before the short automatic synchronisation after installation has terminated.

230 V control voltage, supply voltage and switching voltage.

Glow lamp current up to 50 mA, dependent on the ignition voltage of the glow lamps.

Precise variable time range from 1 to 12 minutes, settable by minute scale.

Own permanent light switch with the big rotary switch.

3-wire circuit with attic lighting, not resettable. Only for retrofitting of existing systems.

After a power failure the lighting is switched on again in case the set time has not elapsed yet.

If switch-off early warning function is switched on the light starts flickering approx.

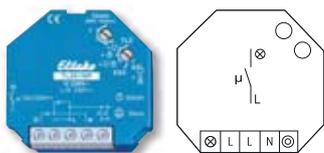
30 seconds before time-out and is repeated three times at decreasing time intervals.

⏏ = Switch-off early warning function

⏏ = Permanent light switched on (all click-stop positions)

AUTO = The set function is active (all click-stop positions)

| | | | |
|---------|-----------|-------------------|-------------|
| TLZ12-9 | 1 NO 16 A | EAN 4010312401620 | 42,40 €/pc. |
|---------|-----------|-------------------|-------------|

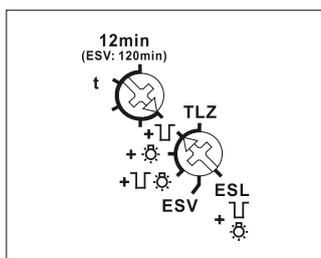


TLZ61NP-230V



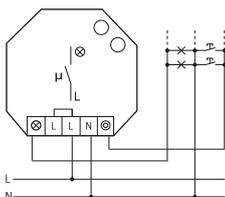
1 NO contact not potential free 10 A/250 V AC. Incandescent lamps up to 2000 W, energy saving lamps ESL and LED lamps up to 200 W. Switch-off early warning and permanent light by pushbutton switchable. Standby loss 0.7 watt only. With ESL optimisation.

Function rotary switches

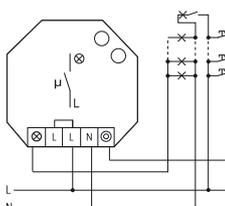


Standard setting ex works.

Typical connection



3-wire circuit, resettable.



4-wire circuit with attic lighting, resettable.

Technical data page 15-10.

Built-in device for installation. 45 mm long, 45 mm wide, 18 mm deep.

Zero passage switching to protect contacts and lamps. This prolongs in particular the lifetime of energy saving lamps.

By using a bistable relay coil power loss and heating is avoided even in the on mode.

The switched consumer may not be connected to the mains before the short automatic synchronisation after installation has terminated.

230 V control voltage, supply voltage and switching voltage.

With infinitely variable time range from 1 to 12 minutes. 50 mA glow lamp current, dependent on the ignition voltage of the glow lamps.

3-wire and 4-wire circuits, resettable, with attic lighting if 4-wire circuit.

Automatic detection of the method of connection.

After a power failure the lighting is switched on again in case the set time has not elapsed yet.

If switch-off early warning function **is switched on**, the light starts flickering approx. 30 seconds before time-out and is repeated three times at decreasing time intervals.

If permanent light by pushbutton **is switched on**, permanent light can be switched on by pressing the pushbutton longer than 1 second. This is switched off automatically after 60 minutes or by pressing the pushbutton longer than 2 seconds.

If both switch-off early warning function and permanent light by pushbutton are switched on, the switch-off early warning function is activated before the permanent light switches off.

When energy saving lamps ESL are completely or partially switched, then set the switch-off early warning with the pushbutton permanent light ESL on the lower rotary switch.

If the function TLZ is selected the **time** can be **extended** within the first second after switching on or resetting by pressing the pushbutton repeatedly up to three times (incrementing).

Each momentary-contact control increments the set time once.

The function **ESV**, impulse switch with release delay up to 120 minutes, can be selected optionally. If this function is set it is automatically disconnected after the set delay is timed out if a manual OFF command has not been given.

If the timing period is set to minimum in the function **ESV**, the release delay is switched off.

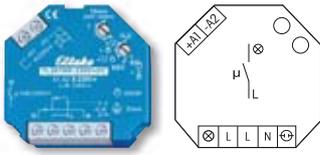
The standard impulse switch function **ES** is then set.

= Switch-off early warning function

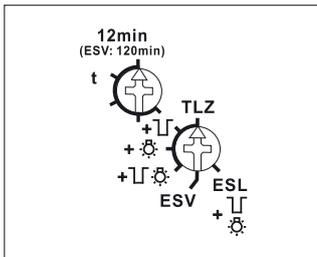
= Permanent light by pushbutton

= Switch-off early warning function and permanent light by pushbutton

| | | | |
|--------------|-----------|-------------------|-------------|
| TLZ61NP-230V | 1 NO 10 A | EAN 4010312400791 | 40,90 €/pc. |
|--------------|-----------|-------------------|-------------|

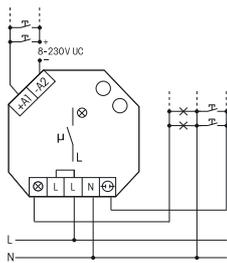


Function rotary switches

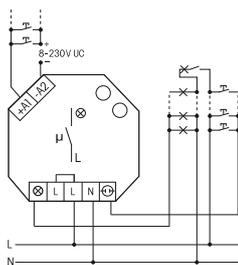


Standard setting ex works.

Typical connection



3-wire circuit, resettable



4-wire circuit with attic lighting, resettable

Technical data page 15-10.

TLZ61NP-230V+UC



1 NO contact not potential free 10 A/250 V AC. Incandescent lamps up to 2000 W, energy saving lamps ESL and LED lamps up to 200 W. Switch-off early warning and permanent light by pushbutton switchable. Standby loss 0.7 watt only. With ESL optimisation.

Built-in device for installation. 45 mm long, 45 mm wide, 18 mm deep.

Zero passage switching to protect contacts and lamps. This prolongs in particular the lifetime of energy saving lamps.

By using a bistable relay coil power loss and heating is avoided even in the on mode.

The switched consumer may not be connected to the mains before the short automatic synchronisation after installation has terminated.

230 V control voltage, supply voltage and switching voltage. In addition electrically isolated universal voltage from 8 to 230 V UC.

With infinitely variable time range from 1 to 12 minutes. 50 mA glow lamp current, dependent on the ignition voltage of the glow lamps.

3-wire and 4-wire circuits, resettable, with attic lighting if 4-wire circuit.

Automatic detection of the method of connection.

After a power failure the lighting is switched on again in case the set time has not elapsed yet.

If switch-off early warning function **is switched on**, the light starts flickering approx. 30 seconds before time-out and is repeated three times at decreasing time intervals.

If permanent light by pushbutton **is switched on**, permanent light can be switched on by pressing the pushbutton longer than 1 second. This is switched off automatically after 60 minutes or by pressing the pushbutton longer than 2 seconds.

If both switch-off early warning function and permanent light by pushbutton are switched on, the switch-off early warning function is activated before the permanent light switches off.

When energy saving lamps ESL are completely or partially switched, then set the switch-off early warning with the pushbutton permanent light ESL on the lower rotary switch.

If the function TLZ is selected the **time** can be **extended** within the first second after switching on or resetting by pressing the pushbutton repeatedly up to three times (incrementing).

Each momentary-contact control increments the set time once.

The function **ESV**, impulse switch with release delay up to 120 minutes, can be selected optionally. If this function is set it is automatically disconnected after the set delay is timed out if a manual OFF command has not been given.

If the timing period is set to minimum in the function **ESV**, the release delay is switched off.

The standard impulse switch function **ES** is then set.

= Switch-off early warning function

= Permanent light by pushbutton

= Switch-off early warning function and permanent light by pushbutton

| | | | |
|------------------------|----------|-------------------|--------------------|
| TLZ61NP-230V+UC | 1 NO 10A | EAN 4010312400739 | 43,70 €/pc. |
|------------------------|----------|-------------------|--------------------|

TECHNICAL DATA STAIRCASE TIME SWITCHES

| Type | TLZ12-8plus ^{b)} TLZ12D-plus ^{b)} | TLZ12G | TLZ12-8 TLZ12-9 ^{b)} | TLZ61NP ^{b)} TLZ61NP+UC ^{b)} |
|---|--|---|--|---|
| Contacts | | | | |
| Contact material/contact gap | AgSnO ₂ /0.5mm | Opto-Triac | AgSnO ₂ /0.5mm | AgSnO ₂ /0.5mm |
| Spacing of control connections/contact | 3 mm | 3 mm | 3 mm | 3 mm |
| Spacing of control connections C1-C2 or A1-A2/contact | 6 mm | 6 mm | - | 6 mm |
| Test voltage control connection/contact | 2000 V | - | 2000 V | 2000 V |
| Test voltage C1-C2 or A1-A2/contact | 4000 V | 4000 V | - | 4000 V |
| Rated switching capacity | 16 A/250V AC | up to 400 W | 16 A/250V AC | 10 A/250V AC |
| Incandescent lamp and halogen lamp load ¹⁾ 230 V, I on ≤ 70 A/10 ms | 2300W | up to 400 W | 2000 W TLZ12-9: 2300 W | 2000 W |
| Fluorescent lamp load with KVG* in lead-lag circuit or non compensated | 1000 VA | - | 500VA TLZ12-9: 1000 VA | 1000 VA |
| Fluorescent lamp load with KVG* shunt-compensated or with EVG* | 500 VA | up to 400VA | 500 VA | 500 VA |
| Compact fluorescent lamps with EVG* and energy saving lamps ESL | up to 200 W ²⁾ | up to 400 W ²⁾ | up to 100 W ²⁾ | up to 200 W ²⁾ |
| 230V LED lamps | up to 200 W ²⁾ I on ≤ 120 A / 5 ms | up to 400 W ²⁾ I on ≤ 120 A / 20 ms | up to 100 W ²⁾ I on ≤ 30 A / 20 ms | up to 200 W ²⁾ I on ≤ 120 A / 5 ms |
| Life at rated load, cos φ = 1 or for incandescent lamps 1000 W at 100/h | > 10 ⁵ | ∞ | > 10 ⁵ | > 10 ⁵ |
| Life at rated load, cos φ = 0,6 at 100/h | > 4x10 ⁴ | ∞ | > 4x10 ⁴ | > 4x10 ⁴ |
| Max. operating cycles | 10 ³ /h | 10 ³ /h | 10 ³ /h | 10 ³ /h |
| Maximum conductor cross-section (3-fold terminal) | 6 mm ² (4 mm ²) | 6 mm ² (4 mm ²) | 6 mm ² (4 mm ²) | 4 mm ² |
| Two conductors of same cross-section (3-fold terminal) | 2.5 mm ² (1.5 mm ²) | 2.5 mm ² (1.5 mm ²) | 2.5 mm ² (1.5 mm ²) | 1.5 mm ² |
| Screw head | slotted/crosshead, pozidriv | slotted/crosshead, pozidriv | slotted/crosshead, pozidriv | slotted/crosshead, pozidriv |
| Type of enclosure/terminals | IP50/IP20 | IP50/IP20 | IP50/IP20 | IP30/IP20 |
| Electronics | | | | |
| Time on | 100% | 100% | 100% | 100% |
| Max./min. temperature at mounting location | +50°C/-20°C | +50°C/-20°C | +50°C/-20°C | +50°C/-20°C |
| Standby loss (activ power) | 0.7W; TLZ12D-plus: 0.5 W | 0,4 W | 0.7W | 0.7W |
| Control current local at 230 V (<10 s) ± 20% | 5(100)mA | 5(100)mA | 5(100)mA | 5(100)mA |
| Control current universal control voltage 8/12/24/230 V (<10 s) ± 20% | 2/4/9/5(100)mA | 2/4/9/5(100)mA | - | 2/4/9/5(100)mA (nur TLZ61NP+UC) |
| Max. parallel capacitance (approx. length) of individual control lead at 230 V AC | 0.06 μF (200 m) C1/C2: 0.9 μF (3000 m) | 0.9 μF (3000 m) | 0.06 μF (200 m) | 0.06 μF (200 m) A1-A2: 0.3 μF (1000 m) |

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

^{b)} Bistable relay as relay contact. The switched consumer may not be connected to the mains before the short automatic synchronisation after installation has terminated.

¹⁾ Applies for lamps with max. 150 W.

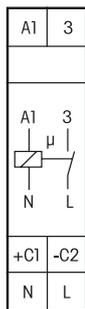
²⁾ Usually applies for dimmable energy saving lamps and dimmable 230 V LED lamps. Due to differences in the lamps electronics, there may be a restriction on the maximum number of lamps; especially if the connected load is very low (for 5 W-LEDs).

To comply with DIN VDE 0100-443 and DIN VDE 0100-534, a Type 2 or Type 3 surge protection device (SPD) must be installed.

THE FRESH AIR PROFESSIONALS

Fresh air in the bathroom with the professional off-delay timers NLZ, also known as off-delay relay. Accurate timing is self-evident for this electronic device as well as noiseless operation. The off-delay timers with universal voltage offer additional appli-

cations as here even different potentials for switch and fan can be applied. The NP types have a settable operate delay up to 12 minutes.



NLZ12NP-230V+UC



1 NO contact not potential free 16 A/250 V AC. Standby loss 0.5 watt only.

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

Zero passage switching to protect contacts and consumers.

State-of-the-art hybrid technology combines advantages of nonwearing electronic control with high capacity of special relays.

230 V control voltage and additionally 8 to 230 V UC electrically isolated universal control voltage. 230 V supply voltage and switching voltage.

Very low switching noise.

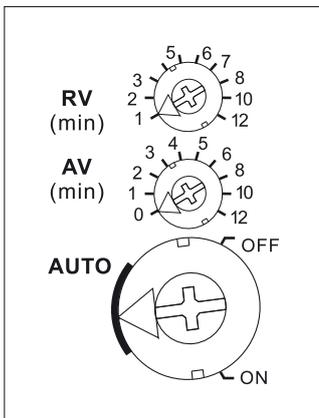
Off-delay time settable from 1 to 12 min with the top rotary switch. Operating delay settable from 0 to 12 minutes with the middle rotary switch. Permanent ON and permanent OFF with the bottom rotary switch.

Function: When the control contact (light switch) is closed the operate delay AV starts (if not set '0 minutes'), on time-out the fan is switched on. The set release delay RV (delay time) starts when the control contact opens and if a set operating delay has elapsed.

The fan switches off on time-out.

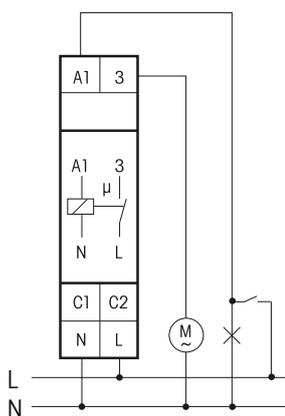
This off-delay timer can be controlled by all dimmer switches EUD12 and EUD61 even in the minimum dimming position.

Function rotary switches

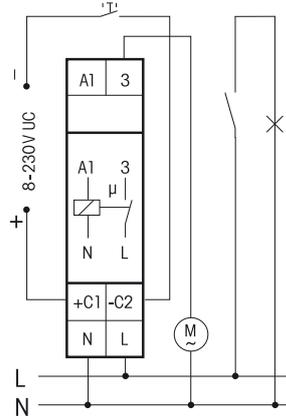


RV = release delay (delay time)
AV = operating delay

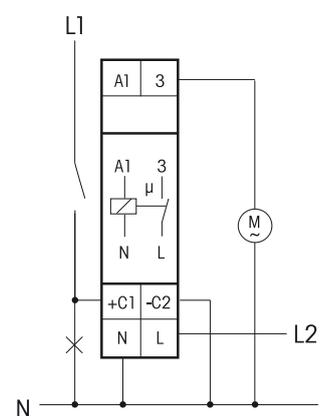
Typical connections



Fan control through light switch



Fan control through ultra low voltage door contact, light is controlled separately

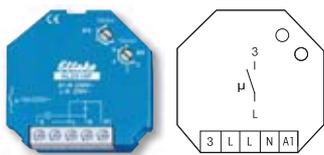


Fan control through light switch in case of different potentials on switch and fan

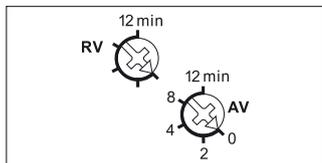
Technical data page 15-13.
Housing for operating instructions GBA12, see accessories, chapter Z.

| | | | |
|------------------------|-----------|-------------------|--------------------|
| NLZ12NP-230V+UC | 1 NO 16 A | EAN 4010312602911 | 42,90 €/pc. |
|------------------------|-----------|-------------------|--------------------|

OFF-DELAY TIMER NLZ61NP-230V AND NLZ61NP-UC

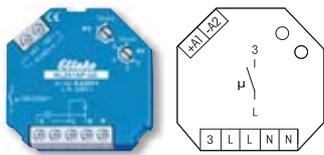
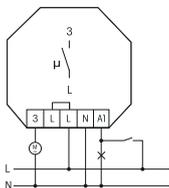


Function rotary switches

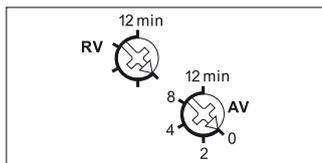


Standard setting ex works.

Typical connections



Function rotary switches



Standard setting ex works.

NLZ61NP-230V



1 NO contact not potential free 10 A/250 V AC. Standby loss 0.7 watt only.

Built-in device for installation.

45 mm long, 45 mm wide, 18 mm deep.

Zero passage switching to protect contacts and consumers.

State-of-the-art hybrid technology combines advantages of nonwearing electronic control with high capacity of special relays.

230 V control voltage, supply voltage and switching voltage.

By using a bistable relay coil power loss and heating is avoided even in the on mode.

The switched consumer may not be connected to the mains before the short automatic synchronisation after installation has terminated.

The top rotary switch varies the off-delay time from 1 to 12 minutes.

Operating delay settable from 0 to 12 minutes with the lower rotary switch.

Function: When the control contact (light switch) is closed the operating delay AV starts (if not set '0 minutes'), on time-out the fan is switched on. The set release delay RV (delay time) starts when the control contact opens and if a set operating delay has elapsed. The fan switches off on time-out.

| | | | |
|--------------|----------|-------------------|-------------|
| NLZ61NP-230V | 1 NO 10A | EAN 4010312603185 | 40,20 €/pc. |
|--------------|----------|-------------------|-------------|

NLZ61NP-UC



1 NO contact not potential free 10A/250V AC. Standby loss 0.7 watt only.

Built-in device for installation. 45mm long, 45mm wide, 18mm deep.

Zero passage switching to protect contacts and consumers.

State-of-the-art hybrid technology combines advantages of nonwearing electronic control with high capacity of special relays.

8 to 230V UC universal control voltage, electrically isolated from the 230V supply voltage and switching voltage.

By using a bistable relay coil power loss and heating is avoided even in the on mode.

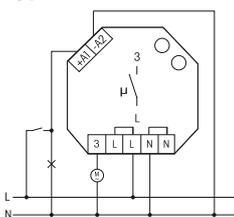
The switched consumer may not be connected to the mains before the short automatic synchronisation after installation has terminated. The top rotary switch varies the off-delay time from 1 to 12 minutes.

Operating delay settable from 0 to 12 minutes with the lower rotary switch.

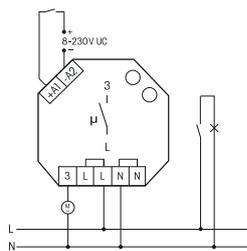
Function: When the control contact (light switch) is closed the operating delay AV starts (if not set '0 minutes'), on time-out the fan is switched on. The set release delay RV (delay time) starts when the control contact opens and if a set operating delay has elapsed. The fan switches off on time-out.

This off-delay timer can be controlled by all dimmer switches EUD12 and EUD61 even in the minimum dimming position.

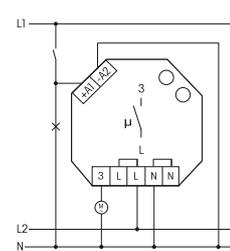
Typical connections



Fan control through light switch



Fan control through ultra low voltage door contact, light is controlled separately



Fan control through light switch in case of different potentials on switch and fan

| | | | |
|------------|----------|-------------------|-------------|
| NLZ61NP-UC | 1 NO 10A | EAN 4010312603048 | 42,40 €/pc. |
|------------|----------|-------------------|-------------|

Technical data page 15-13.

Recommended retail prices excluding VAT.

| Type | NLZ12NP | NLZ61NP-230V ^{b)} NLZ61NP-UC ^{b)} |
|--|--|--|
| Contacts | | |
| Contact material/contact gap | AgSnO ₂ /0.5mm | AgSnO ₂ /0.5mm |
| Spacing of control connections/contact Spacing of control connections C1-C2 or A1-A2/contact | 3 mm 6 mm | 3 mm 6 mm |
| Test voltage control connection/contact Test voltage C1-C2 or A1-A2/contact | 2000 V 4000 V | 2000 V 4000 V |
| Rated switching capacity | 16 A/250V AC | 10 A/250V AC |
| Incandescent lamp and halogen lamp load ¹⁾ 230V, I on ≤ 70 A/10 ms | 2300 W | 2000 W |
| Fluorescent lamp load with KVG* in lead-lag circuit or non compensated | 1000 VA | 1000 VA |
| Fluorescent lamp load with KVG* shunt-compensated or with EVG* | 500 VA | 500 VA |
| Compact fluorescent lamps with EVG* and energy saving lamps ESL | up to 200 W ²⁾ | up to 200 W ²⁾ |
| 230V LED lamps | up to 200 W ²⁾ I on ≤ 30 A / 20 ms | up to 200 W ²⁾ I on ≤ 120 A / 5 ms |
| Life at rated load, cos φ = 1 or for incandescent lamps 1000W at 100/h | > 10 ⁵ | > 10 ⁵ |
| Life at rated load, cos φ = 0,6 at 100/h | > 4x10 ⁴ | > 4x10 ⁴ |
| Max. operating cycles | 10 ³ /h | 10 ³ /h |
| Maximum conductor cross-section (3-fold terminal) | 6 mm ² (4 mm ²) | 4 mm ² |
| Two conductors of same cross-section (3-fold terminal) | 2.5 mm ² (1.5 mm ²) | 1.5 mm ² |
| Screw head | slotted/crosshead, pozidriv | slotted/crosshead |
| Type of enclosure/terminals | IP50/IP20 | IP30/IP20 |
| Electronics | | |
| Time on | 100% | 100% |
| Max./min. temperature at mounting location | +50°C/-20°C | +50°C/-20°C |
| Standby loss (activ power) | 0.5 W | 0.7 W |
| Control current local at 230 V (<10 s) ± 20% | 2 mA | 1 mA |
| Control current universal control voltage 8/12/24/230 V (<10 s) ± 20% | 2/4/9/5(100)mA | 2/4/9/5(100)mA |
| Max. parallel capacitance (approx. length) of individual control lead at 230 V AC | 0,06 μF (200 m) C1/C2: 0.9 μF (3000 m) | 0.06 μF (200 m) A1-A2: 0.3 μF (1000 m) |

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

^{b)} Bistable relay as relay contact. The switched consumer may not be connected to the mains before the short automatic synchronisation after installation has terminated.

¹⁾ Applies for lamps with max. 150 W.

²⁾ Usually applies for dimmable energy saving lamps and dimmable 230 V LED lamps. Due to differences in the lamps electronics, there may be a restriction on the maximum number of lamps; especially if the connected load is very low (for 5 W-LEDs).

To comply with DIN VDE 0100-443 and DIN VDE 0100-534, a Type 2 or Type 3 surge protection device (SPD) must be installed.