



Digital settable staircase
time switch
TLZ12D-plus

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%.

1 NO contact not potential free
16A/250V AC. Incandescent lamps up
to 2300W, energy saving lamps ESL
and LED lamps up to 200W. Control
voltage 230V and/or 8..230V 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 = 18mm wide,
58mm 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 230V. In addition

electrically isolated universal voltage
from 8 to 230V 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, depen-
dent 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 func-
tions 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 push-
button 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 push-
button longer than 2 seconds. This func-
tion 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 abbre-
viation 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 pres-
sing 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.

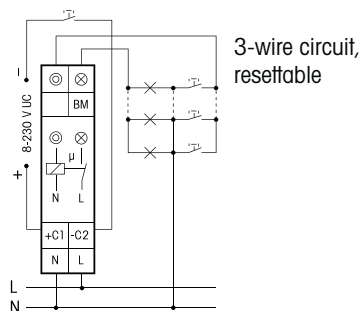
ISO: The impulse switch automatically
disconnects after the set delay from 0.1
to 9.9 hours is timed out, provided there
is no manual OFF command.

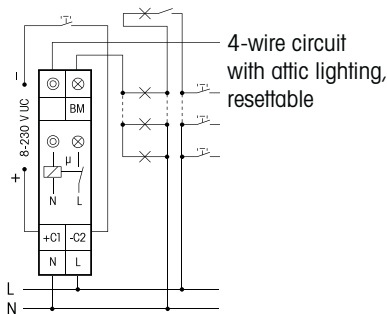
Switch-off early warning, permanent light
by pushbutton and ESL are also swit-
chable if the function ISO is set.

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 dis-
play. 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.

Typical connections





Technical data

Control voltage	230V+8..230V UC
Rated switching capacity	16A/250V AC
Incandescent lamp load and halogen lamp load ¹⁾	2300W
Fluorescent lamp load with KVG in lead-lag circuit or non compensated	1000VA
Fluorescent lamps with KVG shunt-compensated or with EVG	500VA
Compact fluorescent lamp with EVG and energy saving lamps	15x7W 10x20W
Standby loss (activ power)	0.5W
⊙	Control pushbutton 230V
⊗	Permanent light
BM	Motion detector control input
⊗	Lamp connection

¹⁾ For lamps with 150W max.

How to operate the TLZ12D-plus with display

The left countersunk button is named **MODE**. The right button is named **SET**. It projects by 2mm and its functions is permanent light ON/OFF in automatic mode.

Permanent light corresponds to positions ON or ⊗ of the devices with rotary switches and is indicated in the display by PL flashing.

After you switch on the power supply (or the power supply is switched on after a power failure), the display indicates the **language setting** flashing for 10 seconds: D = german, GB = English and F = French.

During this time, press SET to make changes, press MODE to save and then switch over to normal display. This is

the staircase time switch function set at the factory, otherwise the function last selected remains.

Press **MODE** to display the area at the top of the display. Then select the area by pressing **SET** before you make a change: **functions STS, ISO, IS, R and HC**. Each time you press **SET**, you move to the next flashing function. Press **MODE** on the requested function to end the flashing function. Then set by pressing **MODE+SET**.

Retain and only change a function: Press MODE twice.

If + appears behind **STS** or **ISO**, the **optimisation function for energy saving lamps ESL** is switched on.

Action press MODE	Change press SET
STS = staircase time switch and ISO = impulse switch with time delay.	
TIM flashes	STS : The time delay is incremented in steps of 0.5 min from 1 to 10 minutes and in steps of 1 min from 10 to 99 minutes. ISO : The time is incremented in steps of 0.1 hr from 0.1 to 9.9 hours. Press and hold down to increment the time slowly followed by rapid increase
AVW flashes	The length of the switch-off early warning is incremented in steps of 5s from 0 to 50s. After 50 the display returns to 0 (then without switch-off early warning).
TDL flashes	The time for the permanent light by pushbutton function is incremented in steps of 0.5 hr from 0 to 10 hours. After 10 the display returns to 0 (then without permanent light by pushbutton).
ESL flashes	ESL+ switches on ESL optimisation, without + it is off.

TLZ or ESV

no longer flashing: the automatic function is active.

IS = impulse switch, R = switching relay and HC = operating hour counter have no adjustable subfunctions.

If your input ends with a non flashing display, this is the selected function. With time periods, the reference and the residual times are shown at the bottom of the display.

Reset operating hour counter to 0

Press **MODE** and **SET** simultaneously for 2 seconds. The bottom line in the display flashes. Press **SET** to reset to 0.

Lock and unlock

If the automatic function is active (no element is flashing), the setting can be locked against unintentional adjustment and then unlocked.

As long as it is locked, an arrow at the top right of the display points to a lock icon on the front panel.

Lock: Press **MODE** and **SET** simultaneously and briefly. **LCK** flashes. Lock by pressing **SET**.

Unlock: Press **MODE** and **SET** simultaneously for 2 seconds. **UNL** flashes. Unlock by pressing **SET**.



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 GBA12.

Eltako GmbH

D-70736 Fellbach

+49 711 94350000

www.eltako.com