

### GENERAL:

The ETD U1 universal pushbutton dimmer can be used to dim incandescent lamps and halogen lamps with Tronic or conventional transformers.

Because the ETD U1 is fully independent from the used switch design, it is very versatile and most flexible to install.

With its built-in base load terminal and the mains independent brightness memory, the ETD U1 is also ideally suited for operation with a demand switch.

### OPERATION:

A brief press of the pushbutton-switch (<0.5s) causes the dimmer to switch the light on or off. If the button is held down for a longer period (>0.5s), the brightness is increased or reduced ("dimmed up" or "down").

In Mode 1 "last brightness", the dimmer saves the brightness setting on switching off and then restarts with this brightness when next switched on.

Mode 2 is like mode 1, except that it includes a soft on/off function.

In Mode 3 "full brightness" the dimmer always starts with maximum brightness.

Mode 4 corresponds to Mode 3 with additional soft on/off function.

In Mode 5 "snooze dimmer", the dimmer starts with full brightness when switched on. The snooze function is activated by dimming the brightness and deactivated by increasing the brightness. When the snooze function is activated, the brightness is slowly reduced to the minimum value and the light is then switched off. The dimming time is determined by the maximum brightness.

At maximum brightness, the light is dimmed to 0 within 60 minutes, and at half-brightness the dimming period is about 30 minutes.

## Universal pushbutton dimmer ETD U1 35-500VA

### SPECIAL FEATURES:

- Dims incandescent lamps and halogen lamps with tronic or conventional transformers
- Suitable for automatic demand switches (built-in base load terminal and brightness memory)
- Extremely compact housing (fits in flush-mounted switch box and is therefore independent of the switch design used)
- Soft on/off function for low lighting component wear and pleasant switching characteristics
- Selectable "snooze" function (slow automatic down-dimming, e.g. for children's bedroom)
- Electronic short-circuit and overload protection

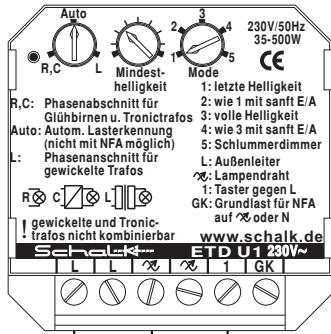
### TECHNICAL DATA:

Operating voltage	230V AC 50 Hz
Power consumption	2W for 500VA load
Min. load	35VA
Max. load	500VA
Local input (terminal 1):	
Line capacitance	max. 20nF
Line length	max. 200m
Interference immunity	compliant IEC 801-4 level 2
Equipment protection	compliant IEC 801-5 level 2
Ambient temperature	-10°C to +45°C (max. load reduced as from +30°C)
Insulated housing	flameproof to VDE 0304 part 3, level FV 0
Connections	socket terminals with captive screws M3.5
External dimensions	43x43x18.5mm
Weight	35g
Colour (RAL)	grey 7035 / green 6029

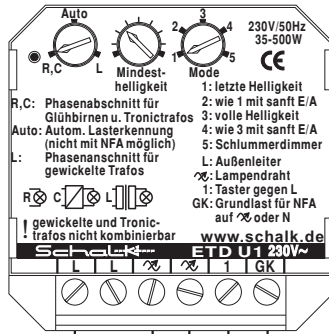
### ORDERING INFORMATION:

Part.No.	Type	Description
etdu19	ETD U1	Universal pushbutton-operated dimmer 230V / 50 Hz 35-500VA

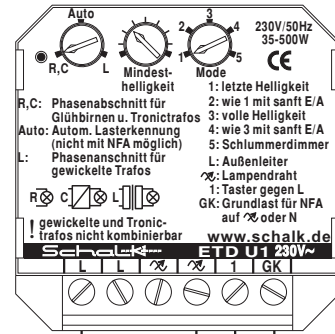
# ETD U1 function and typical application



**Standard connection  
(without demand switch)**



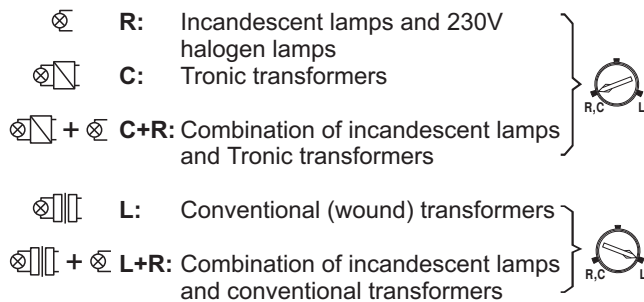
**Connection with  
demand switch**



**Connection with demand switch  
and a tronic transformer**

Terminals L and  $\text{⌘}$  are duplicated. In thermally problematic installations, heat dissipation can be improved by additional connection of these terminals. If terminal GK is wired to N, the pushbutton line can drive up to 15 mA glow-lamp current.

## Setting the dimming mode



## Important notice:

The combination of Tronic and conventional transformers is not permitted.

The efficiency of conventional and Tronic transformers has to be considered. The maximum permitted power for the dimmer is based on the transformer's primary power input.

The operation of conventional or Tronic transformers below their minimum load specification is not allowed.

Dimming of Tronic transformers using reverse phase control (trailing-edge phase control) must be approved by the manufacturer.

The operation of conventional transformers without a load (open circuit) is not permitted.

Due to the technical variety of transformers and Tronic transformers, full functionality with every available type can not be guaranteed.

## LED display:

The built-in LED of the dimmer indicates the occurrence of fault conditions by means of short light pulses.

- 1 pulse: power failure => the power supply of the dimmer has been interrupted
- 2 pulses: overload => the power of the connected loads exceeds the permitted maximum power
- 3 pulses: overheating => the temperature of the dimmer exceeds the maximum permitted temperature
- 4 pulses: short-circuit => a short-circuit has occurred at the dimmer output
- 5 pulses: overvoltage => overvoltage has occurred at the dimmer
- 6 pulses: saturation => a transformer has generated a asymmetrical load

The error display is reset by pressing the dimmer pushbutton.

## Installation instructions:

**When operating the dimmer, heat is generated as a function of the dimmer power output. If this heat cannot be adequately dissipated, the power output (load) must be reduced.**

- 10% when installed in wood, plasterboard or hollow wall
- 20% when several dimmers are installed close together
- 10% per 5°C in excess of 30°C ambient temperature.

Heat dissipation is improved when more wires are connected to the dimmer.

When the max. permitted temperature is exceeded, the ETD U1 first slowly dims the load. If the overheating is not sufficiently stopped, the load is switched off.

The lighting media may only be switched off from the dimmer. A switch between the dimmer output and the light is not permitted.