

## Rotary dimmer in E-Design55 DTD55-230V-wg

**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%.

**Rotary dimmer for single mounting 80x80x25 mm or mounting into the E-Design55 switching system. Installation depth 33 mm. Universal dimmer switch with rotary knob, Power MOSFET up to 300 W. Automatic lamp detection. With adjustable minimum and maximum brightness. Standby loss 0.14 watt only.**

Universal dimmer switch for lamps up to 300 W, depending on the ventilation conditions, dimmable energy saving lamps (ESL) and dimmable 230 V LED lamps also depending on the lamp electronics.

**Zero passage switching with soft start and soft OFF to protect lamps.**

Control voltage, supply voltage and switching voltage 230 V. No minimum load required.

The setting of the brightness level is stored after switching off (Memory).

In case of a power failure the switching position and the brightness level are stored. If applicable the dimmer will be switched on at the stored brightness level after the supply voltage is recovered.

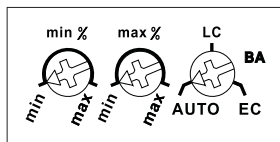
Automatic electronic overload protection and over-temperature switch-off.

**Mounting:** screw mounting plate. After the rotary switch setting, pull the red insulating cap and attach the knob. The insulating cap should be remained for future use in the DTD55. Then put up the frame and attach the front panel.



**Important! Before mounting and removal, always disconnect the power supply!**

### Function rotary switches



Minimum brightness (fully dimmed down) is adjustable **using the left % rotary switch.**

**Use the middle % rotary switch** to set the maximum brightness (fully dimmed up).

**The right rotary knob** sets the operating mode:

**AUTO** allows the dimming of all lamp types.

**LC** is a comfort position for dimmable 230 V LED lamps which are not being dimmed down enough when set to AUTO (trailing phase angle) dependent on the construction and must therefore be forced to leading phase angle.

**EC** is a comfort position for energy saving lamps which must be switched on with increased power dependent on the construction, so they will also switch on again safely in cold condition when dimmed down.

**In positions EC and LC no inductive (wound) transformers should be used.** In addition, the maximum number of dimmable LED lamps may be lower by design than in the AUTO position.

### Operation:

**Press the middle of the rotary knob** to switch on with memory value and to switch off and save the current dimming value.

**Turn to the right (clockwise) to dim up.**

The turning speed determines the dim-up speed.

If the dimming actuator was switched off to the right at the start of dimming, switch-on is at minimum brightness followed by gradual dim-up. **This is the children's room circuit.**

**When the rotary knob is turned jerkily to the right** – with the dimmer knob previously switched on or off – dim-up is rapid to the maximum brightness adjusted.

**Turn to the left (anticlockwise) to dim-down** to the minimum brightness adjusted. The turning speed determines the dim-down speed.

**When the rotary knob is turned jerkily to the left**, dim-down is rapid to the minimum brightness adjusted.

If the dimming switch was switched off to the left at the start of turning, switch-on is at minimum brightness followed by gradual

dim-up by turning to the right.

**Control is also possible using a 230 V control pushbutton in addition to the rotary knob:** Short commands switch on/off, continuous activation changes brightness up to maximum or minimum value. If you interrupt activation, it changes the dimming direction.

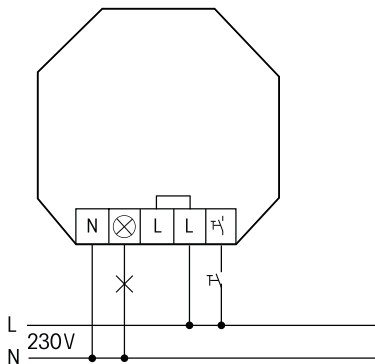
**Children's room circuit with control push-button:** Press the control pushbutton for a long time to switch on at minimum brightness, then continue pressing the pushbutton to dim up the lights slowly without changing the last dimming value stored.

### Sleep time with control pushbutton:

A double pulse dims down and switches off the lighting from the current dimming position through to minimum brightness.

The maximum dimming time of 60 minutes is dependent on the current dimming position and the adjusted minimum brightness and can therefore be shortened as required. Tap briefly at any time during dim-down process to switch off. Press long during the dimming-down process to dim up and end the sleep timer.

### Typical connection



### Technical data

Incandescent and halogen <sup>1)</sup> lamps 230 V (R)	up to 300 W
Inductive transformers (L)	up to 300 W <sup>2)3)</sup>
Electronic transformers (C)	up to 300 W <sup>2)3)</sup>
Dimmable energy saving lamps ESL	up to 300 W <sup>5)</sup>
Dimmable 230 V LEDs	up to 300 W <sup>5)</sup>
Max./min. temperature at mounting location	+50°C/-20°C <sup>4)</sup>
Standby loss (activ power)	0.14 W

<sup>1)</sup> For lamps with 150 W max.

<sup>2)</sup> Per dimmer it is only allowed to use max. 2 inductive (wound) transformers of the same type, **furthermore no-load operation on the secondary part is not permitted. The dimmer might be destroyed.** Therefore do not permit load breaking on the secondary part. Operation in parallel of inductive (wound) and capacitive (electronic) transformers is not permitted!

<sup>3)</sup> **When calculating the load a loss of 20% for inductive (wound) transformers and a loss of 5% for capacitive (electronic) transformers must be considered in addition to the lamp load.**

<sup>4)</sup> Affects the max. switching capacity.

<sup>5)</sup> Usually applies for dimmable energy saving lamps and dimmable 230 V LED lamps. Due to differences in the lamps electronics, there may be limited dimming range, switch on and off problems dependent on the manufacturer and a restriction on the maximum number of lamps; especially if the connected load is very low (for 5 W-LEDs). The comfort positions EC and LC optimize the dimming range, which, however, only gives a maximum power up to 100 W. No inductive (wound) transformers may be dimmed in these comfort positions.

**Must be kept for later use!**

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