

# MICROMODULES WITHOUT NEUTRAL

## TIMED DIMMER 500W

**MTV500E**

5454052

Timed Dimmer  
for recessed  
installation**MTV500M**

5454062

Timed dimmer  
on DIN rail

### Yokis advantages

- ▶ It is possible to activate the timer, from 2 seconds to 4 hours, with gradual switch-off notification. Indefinite operation also possible.
- ▶ Allows you to store the minimum brightness level and a preset value. IT is possible to command switching on at 100% or at the previously set brightness value.
- ▶ Easy installation, without neutral wire, behind any commercially available button.
- ▶ Consumption is reduced according to brightness variation.
- ▶ Dimmer compatible with dimmable LEDs by adding the accessory **SMARTCHR** (item no. 5454089).
- ▶ Can be centralised through pilot wire with the accessory **CVI50** (item no. 5454805), to allow total switching on or off.
- ▶ Also works with buttons equipped with light indicator (max 20 and max 40 mA) by adding the accessory **BV40** (item no. 5454071).
- ▶ Brightness variation adjustable from 3VA up to 250VA on LED loads.
- ▶ "Soft start/soft stop" function: protects the bulb by increasing its lifetime, and improves the user's perception of light.



### Dimmer with children's room night light function

It is possible to select 20% lighting and set it to gradually decrease during a 1-hour period to a night light (duration: 12 hours) with three short touches of the button.

It also enables the activation of lights in corridors or other rooms for night-time movements.

## ACCESSORIES



**SMARTCHR** 5454089 - **3 W resistive load for energy-saving light bulbs and LED.**  
Prevents flickering of light bulbs.



**CVI50** 5454805 - **Converter for centralisation of MTR500 with fixed contact.**  
Allows a centralisation of toggle relays and dimmers from the 500 range to be controlled via an automation system or clock.



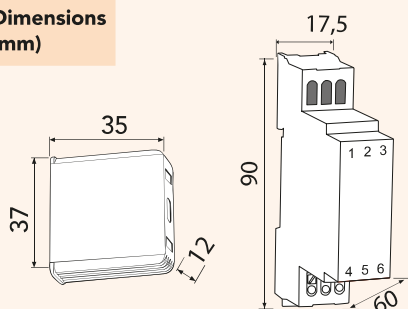
**D600V** 5454072 - **Diode for centralisation/pilot wire.**  
Allows a local command to be blocked on the pilot wire.

# WIRED MICROMODULES

## 500 W RANGE WITHOUT NEUTRAL

### TECHNICAL FEATURES

<b>Network voltage</b>	230V ~ (+10% -15%) - 50Hz
<b>Power</b>	min. 5VA max. 500VA max. 250VA LED (250 VA for sealed box)
<b>Intensity</b>	1.3A max.: 2.2A
<b>Ambient temp.</b>	- 20 °C + 40 °C
<b>Relative humidity</b>	from 0 to 99%
<b>Dimensions (mm)</b>	



### FUNCTIONAL FEATURES

- ▶ Possibility of using low-voltage buttons with the ADBT accessory (Item no. 5454076).
- ▶ Double overload protection with power cut-off.
- ▶ Electronic overheating protection.
- ▶ Immune to mains disturbances up to 1.5kV.
- ▶ Built-in automatic switch in case of short circuit on the load, with automatic reset after the fault is eliminated.
- ▶ Digital coil with protection system in case pushbutton is pressed for a prolonged amount of time.
- ▶ Increases light bulb and switch duration.
- ▶ Variation principle through cut-off at phase start or phase end with automatic load type recognition (**only MTV500M / MTV500E**).
- ▶ Works with buttons equipped with light indicator (max 20) by wiring a single BV40 accessory (Item no. 5454071) to be installed as close as possible to the micromodule.

### ITEM NUMBER TABLE

500 Range flush-mounted	Serial number	Item number	P.
Toggle relay timed	MTR500E	5454050	81
Timer	MTM500E	5454051	83
Timed dimmer	MTV500E	5454052	85
500 Range on DIN rail			
Toggle relay timed	MTR500M	5454060	81
Timer	MTM500M	5454061	83
Timed dimmer	MTV500M	5454062	85

### STANDARDS AND CERTIFICATIONS



### USE

Each micromodule of the 500 range can be used as a toggle relay, dimmer, timer, with one or more buttons.

#### Installation:

The micromodule can be installed in flush-mounting boxes with a depth of 40 to 50 mm and a standard diameter of 65 mm. In all cases, the button must not apply any mechanical stress on the module and the depth of the box must be sufficient to ensure at least 1 mm clearance around the micromodule. It can also be installed in junction boxes with a minimum air volume of 100 cm<sup>3</sup> per micromodule (a box with a length of 60 x width of 60 x depth of 40 mm may be sufficient for one micromodule).

- ▶ **Power 250W 1A:** In all cases where the described housings are watertight and do not allow air circulation, the maximum permissible power is 250W.
- ▶ **Power 500W 2A:** In regular installations boxes are almost always connected with corrugated conduits that allow the passage of air and guarantee minimum but sufficient ventilation to achieve a power of 500 W. Open air installation allows full-power use.

#### Wiring:

The micromodule is connected in series to the circuit. No connection required, it can be wired to phase or neutral. If the common switch is on neutral, simply reverse the purple and orange wires (terminal "5" to "6" on the DIN rail model). The micromodule accepts an unlimited number of buttons with a maximum distance of 50 m between micromodule and buttons.

**ATTENTION!**  
**DO NOT USE ON CONTROLLED SOCKETS.**

**DO NOT install this micromodule with inductive loads (e.g., ferromagnetic ballasts or window shutters, ferromagnetic transformers) on the same circuit without the accessory FDVDT (Item no. 5454075).**

The accessory must be connected as close as possible to the micromodule's power supply, in parallel between phase and neutral. Without this accessory, the micromodule's overload protection would quickly deteriorate.

### WIRED 500W RANGE FUNCTION TABLE

Main	Products		Timing Function						Dimmer Function			Other
	Flush-mounted item no.	DIN rail item no.	Soft start/Soft stop	Centralisation with pilot wire	Configuration from 2 seconds to 4 hours	Possible unlimited duration	1-hour long duration	Notification with gradual switch-off	Reduction in consumption based on light intensity	Last turning on memory	Children's room	Night light preset memory
MTR500 timed toggle relay	5454050	5454060	●	●	●	●	●	●				
Timer MTM500	5454051	5454061	●	●	●	●	●	●				
MTV500 timed dimmer	5454052	5454062	●	●	●	●	●	●	●	●	●	●

# WIRED MICROMODULES

## 500 W RANGE WITHOUT NEUTRAL

COMPATIBLE LOAD TABLE	Resistive loads	Incandescent light bulbs	Fluorescent and energy-saving lamps	Electronic transformers	LEDs	Ferromagnetic transformers	Motors
MTR500(E)(M) * MTM500(E)(M) (3)	I max: 2A P min: 5W P max: 500W (2)	I max: 2A P min: 5W P max: 500W (2)	I max: 1A P min: 11VA P max: 250VA (1) (2)	I max: 2A P min: 11VA P max: 500VA (1) (2)	I max: 2A P min: 11VA P max: 250VA (1) (2)	I max: 2A P min: 11VA P max: 500VA (2)	-
MTV500(E)(M) *	I max: 2A P min: 5W P max: 500W	I max: 2A P min: 5W P max: 500W	I max: 1A P min: 11VA P max: 250VA (1)	I max: 2A P min: 11VA P max: 500VA (1)	I max: 2A P min: 11VA P max: 250VA (1)	I max: 2A P min: 11VA P max: 500VA	-

\* If the module is installed in a watertight flush-mounting box, the values vary as follows: I<sub>max</sub>=1A and P<sub>max</sub>=250W for resistive loads; I<sub>max</sub>=1A and P<sub>max</sub>=250VA for other types of load.  
 (1) Include 1 to 3 SMARTCHR accessories in parallel with the load. (2) We recommend using the 2000 range, if the neutral wire is available.  
 (3) Maximum power of 250VA on all capacitive loads except the TBT 12V electronic transformer (500VA).

### CONFIGURATION TABLE

**!** Before setting any configuration, unlock the module with 23 short touches on the button.

Configuration principle: SHORT consecutive TOUCHES of the button (maximum interval of 0.8 s)  
 CONFIRMATION reply with blinking after touches.

Touches	Duration	Replies	Touches	Duration	Replies	Configuration in seconds
11	2 minutes	1 blink	22	Not used	2 blinks	All durations set in minutes can be changed into seconds with <b>25 short touches</b> (reply: 5 flashes). It is possible to switch back to minutes with 26 short touches (reply: 6 flashes).
12	4 minutes	2 blinks	23	Unlocking	3 blinks	
13	8 minutes	3 blinks	24	ON/OFF notification	4 blinks	
14	15 minutes	4 blinks	25	Duration in seconds	5 blinks	
15	30 minutes	5 blinks	26	Duration in minutes	6 blinks	
16	60 minutes (1 hour)	6 blinks	29	ON/OFF Long Duration (on relays and timers only)	9 blinks	
17	120 minutes (2 hours)	7 blinks	30	Full reset to default values	2 blinks	
18	240 minutes (4 hours)	8 blinks	27*	Minimum brightness setting	7 blinks	
19	Unlimited timing	9 blinks	28*	Minimum brightness	8 blinks	
20	Soft start/Soft stop	10 blinks	29*	100% bistable / saving upon first touch	9 blinks	
21	Block	1 blink				Example: Configuration of a 15-second duration: 1 - 25 touches (reply: 5 blinks) to select the seconds. 2 - 14 touches (reply: 4 blinks) to set a 15-second duration.

\*Only on MTV500E and MTV500M



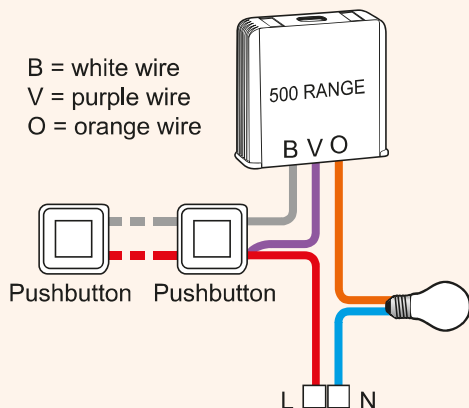
#### 500 range micromodules without neutral wire

- ▶ Can be controlled only by buttons
- ▶ Cannot control fluorescent lamps
- ▶ In sealed boxes, power is limited to 250VA
- ▶ Do not use on controlled sockets
- ▶ Can be centralised with pilot wire, using D600V and CVI50 accessories

## WIRING DIAGRAMS

### 500 W RANGE WITHOUT NEUTRAL

**SD542 0001** 2-WIRE WIRING, WITH BUTTON COMMON TO PHASE



**SD542 0002** 2-WIRE WIRING, WITH BUTTONS COMMON TO NEUTRAL

