

VRS FMT DIM Receiver

VRS FMT DIM Receiver

Art.-no.: 01580920



Art.-no.:
01580920

Wireless dimmer for light applications 230VAC in FMT housing.

Installation and Operating Instructions

Short description

- Dimmer for switching and dimming of lighting up to 250 W
- Operation via all transmitters of the Vestamatic Radio System (VRS)

Functional description

The VRS FMT DIM Receiver enables lights to be wirelessly dimmed or switched. It is possible to pair up to a total of 32 transmitters, the dimmer can also be programmed while fitted. When the **P** prog. button is pressed, a special VRS signal is sent to the dimmer, which activates the programming mode there.

An external switch can be connected to operate the dimmer locally. An electronic short-circuit, overload and an overheat protection provide optimum safety.

There are three modes available to select the operation mode of the dimmer:

- Dimming with memory function, i.e. the most recently selected brightness is stored, and then, next time it is switched on, the lamp is lit with the same brightness again.
- Dimming without memory function involves simple brightening and dimming without any storage of brightness values.
- The setting of fixed brightness values is suitable for the creation of personalised lighting profiles.

The following settings have been programmed as factory settings:

- Operating mode: trailing edge,
- External button in mode „Dimming without memory function“ with single-button operation,
- Memory value: max. brightness.

Safety precautions



- Contact a professional electrician to install and programming the dimmer, because the control system requires a power supply of 230VAC, 50 Hz.
- Check the control system for signs of mechanical damage after unpacking. If you notice any shipping damage, do not start up the control system and notify your supplier immediately.
- The dimmer should only be used for the purpose specified by the manufacturer (refer to the operating instructions). Any changes or modifications thereof are not permissible and will result in loss of all warranty claims.
- If the control unit or the connected sunshade cannot be operated without presenting a hazard, it must be switched off and prevented from being switched on unintentionally.
- When performing work on the windows, controls or connected shades, protect them against unauthorised or unintentional operation.

Technical data

Power supply:	230VAC, 50 Hz
Rated power:	0.7 W stand by / 0.02A
Radio frequency:	868 MHz
Rated power:	
Resistive load:	7 W to 250 W
Inductive load:	20 VA to 250 VA
LED + ESL:	7 W to 100 W
Protection degree:	IP 20 (FMT)
IP class:	II
Operating temperature:	-20 °C (4 °F) to +60 °C (140 °F)
Dimensions (L x B x H):	48 x 48 x 25 mm
Conformity:	

Instructions for radio receivers



ATTENTION!

Radio transmission is not suitable for safety operations, such as emergency-stop, emergency call or warning signals.

Signals are transmitted across the Europe-wide approved 868 MHz frequency band. The radio transmission range largely depends on the constructional circumstances of the building. If other adjacent radio devices are simultaneously sending signals as the Vestamatic Radio System (VRS), mutual interferences cannot be debared. Such interferences can also affect individual units of a group of receivers.

Observing the following instructions will minimize these interferences:

- Avoid to mount radio receivers onto or adjacent to metal surfaces.
- Maintain minimum 50 cm clearance to consumer loads, such as microwave ovens or TV sets.
- Keep a minimum clearance of 50 cm between each mounted radio receiver.
- Keep a minimum clearance of 50 cm between a radio receiver and a radio transmitter.

If a radio-transmitted command cannot be clearly detected, the command execution will be suppressed by means of an integrated automatic safety function. The command must then be issued again.

Conformity

The product meets the essential requirements of R & TTE Directive 1999/5/EC. The declaration of conformity is available on the following website: www.vestamatic.com

Disposal of waste

The disposal of electrical equipment and batteries in household waste is strictly forbidden.



The symbol (dustbin crossed out, in line with WEEE Appendix IV) indicates separate collection of electrical and electronic products in EU countries. Do not dispose the device or battery in your household waste. Ask your town or local council about the return and collection systems available in your area to dispose of this product.

A Installation and Start-up the Dimmer

A1 Selecting a location

Depending on the connected load, the dimmer will heat up during operation. In case of insufficient coding, the max. connected load must be reduced as follows:
 15 % when installed in hollow walls, drywall or wooden walls,
 25 % when installing multiple dimmers in rows or stacks.

Ensure an interference-free wireless connection. Avoid mounting at the following locations: in the immediate vicinity of large metal objects on the ground (or near it), because this will affect the range.

A2 Installation



WARNING!

Risk of injury due to improper installation and commissioning.

Improper installation and commissioning may lead to personal injury or property damage.

Therefore:

- When connecting the device, observe the currently valid VDE standards (in particular DIN VDE 0100/0700), your local power company's regulations and the current accident prevention regulations.
- Connect the control in accordance with the wiring diagram.

Notes for professional electricians

The dimmer must be fitted by a qualified electrician in a standard flush-mounted installation box (min. diameter 68 mm) in line with the wiring diagram (see section A4). It's strictly forbidden to shorten or extend the antenna!

1. Switch off the power supply.
2. Connect the cable for the power supply and for the lights according to the wiring diagram.
3. Activate the power supply and adjust the operating mode in line with the connected consuming device (see A3, "Setting operating mode").
4. Pair the VRS transmitter.
5. Close the installation box by using the cover.



ATTENTION!

When connecting Halogen transformers or tronic transformers in parallel, only devices of identical type may be used and the maximum load must not be exceeded.

It is not permitted to connect the following loads:

- Transformer halogen lamps and Tronic halogen lamps,
 - Transformer halogen lamps and ESL/LED lamps.
- In these cases, a separate dimmer must be used for each load.

A3 Setting operating mode

Depending on the connected lighting set the operating mode as follows:

1. Hold down the prog. button **P** on the dimmer (for around 10 seconds) until the LED alternately flashes yellow and blue. Once the button is released, the current operating mode will be displayed.
2. Press the prog. button **P** again until the LED lights up in the colour of the desired operating mode.



blue Operating mode TRAILING edge

Resistive and capacitive loads

Incandescent bulbs, high-voltage halogen lamps, electronic ballast devices for low-voltage halogen lamps, dimmable LED lamps (also for mixed loads such as incandescent bulbs with Tronic halogen lamps and incandescent bulbs with ESL/LED lamps).



yellow Operating mode LEADING edge

Resistive and inductive loads

Incandescent bulbs, High-voltage halogen lamps, Dimmable LED lamps (observe manufacturer specifications!), Wound transformers for low-voltage halogen lamps (also for mixed loads such as incandescent bulbs with Tronic halogen lamps).



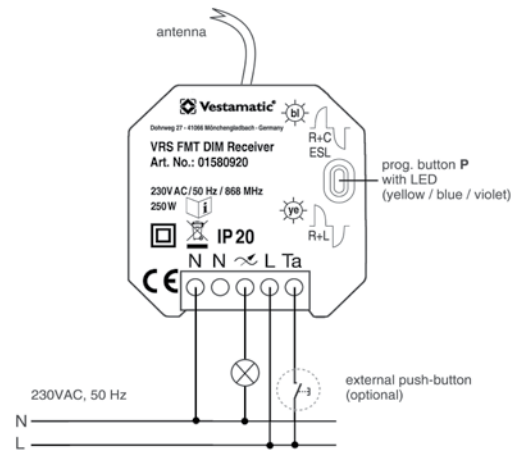
violet Operating mode TRAILING edge

Dimmable energy-saving bulbs (ESL)

The brightness upon activation is set to around 50% of the dimming curve, a later reduction in brightness is also possible.

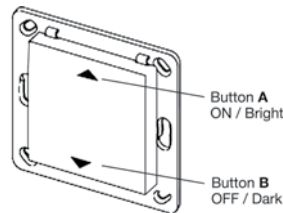
3. Finally, press and hold **P** button until the LED goes off. The setting of the operating mode has been saved.

A4 Wiring diagram / Operating element

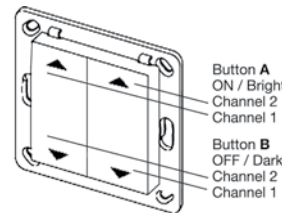


B VRS transmitter / Button assignments

B1 Wall transmitter VRS Switch 1



B2 Wall transmitter VRS Switch 2



B3 VRS hand-held transmitter / Function + Programming

I. Transmitter LED indication of selected channel.

To change channel:

Press and hold the "stop" button (middle button) for 3-6 sec., the LEDs start to flash). Release the STOP button and use ON ▲ or OFF ▼ button to select wanted channel and confirm by pressing "STOP".

I.



II.

II. Radio remote control 5 channel:

Normally used to select MANUAL or AUTOMATIC mode. Not used for this device.

Radio remote control 10 channel:

Left LED indication channel 1-5
 Right LED indication channel 6-10

III.

III. Manual control buttons.

- Button A: ON / Bright = ▲
- Button STOP: without function
- Button B: UP / Dark = ▼

C Operation – Dim Function



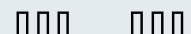
The respective function can be selected using the dimmer by pressing the prog. button **P** several times until the LED flashes in the rhythm of the desired mode (see section D, „Programming“).
Once a transmitter is paired, the selected mode is allocated to the transmitter buttons.

The transmitter button **A** brightens or activates, while transmitter button **B** dims or switches off. Only one button needs to be paired; the code for the second button will be allocated automatically. Finally, the dimmer must be made ready for operation. To do this, the prog. button **P** must be pressed several times until the LED on the dimmer ceases to blink.

<p>Function 1: Dimming with memory</p> <ul style="list-style-type: none"> Bright: Hold down transmitter button A until the desired brightness is reached. Dark: Hold down transmitter button B until the desired brightness is reached. 	<p>The most recently stored brightness is stored when switching off.</p> <ul style="list-style-type: none"> Switching ON to the stored brightness: Press and release transmitter button A quickly. If the lighting was switched off by means of dimming, it will be switched on to a discrete brightness (does not apply to energy-saving lamps). Switching OFF: Press and release transmitter button B quickly.
<p>Function 2: Dimming without memory</p> <ul style="list-style-type: none"> Bright: Hold down transmitter button A until the desired brightness is reached. Dark: Hold down transmitter button B until the desired brightness is reached. 	<p>Dimming without storing the last brightness.</p> <ul style="list-style-type: none"> Switching ON: Press and release transmitter button A quickly. The lighting will be switched to full brightness. Switching OFF: Press and release transmitter button B quickly.
<p>Function 3: Switching between fixed brightness values</p> <ul style="list-style-type: none"> Dimming is not possible. 	<p>Activation of personalised lighting profiles. The desired brightness can be set specifically using a transmitter.</p> <ul style="list-style-type: none"> Switching ON: Press and release transmitter button A quickly. The lighting will be switched to the stored brightness. Switching OFF: Press and release transmitter button B.
<p>Dimming by means of external button (optional)</p> <ul style="list-style-type: none"> Brightening or dimming: Hold down the button. When the brightness limit has been reached, briefly release the button and then hold again to dim. 	<p>Connecting an external button to control the dimmer locally.</p> <ul style="list-style-type: none"> Switching ON: Press and release the button quickly. The lighting will be switched to full brightness. Switching OFF: Press and release the button quickly.

D Programming

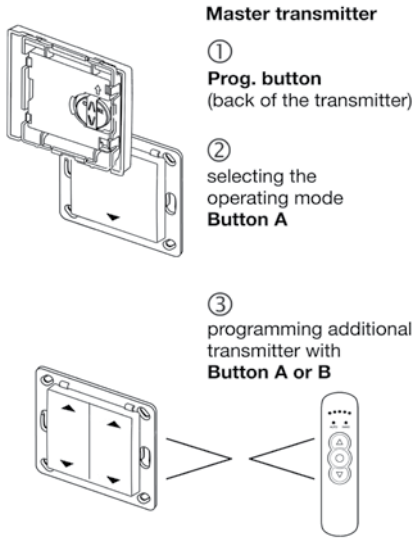
D1 Programming transmitter – via dimmer prog. button

Briefly press button ¹⁾ (1 Second)	Display	Remark
Function 1: Dimming with memory		
Dimmer: Button P 1x short	LED flashes (1x break 1x ...)	 Learning mode
Transmitter: Button A or B 1x short	LED flashes ²⁾ after 4 s	Transmitter stored
Dimmer: Button P 3x short	LED goes off	Dimmer is ready for use
Function 2: Dimming without memory		
Dimmer: Button P 2x short	LED flashes (2x break 2x ...)	 Learning mode
Transmitter: Button A or B 1x short	LED flashes ²⁾ after 4 s	Transmitter stored
Dimmer: Button P 2x short	LED goes off	Dimmer is ready for use
Function 3: Switching between fixed brightness values		
⚠ Dim the lights first in a different mode to the desired brightness and keep the light burning.		
Dimmer: Button P 3x short	LED flashes (3x break 3x ...)	 Learning mode
Transmitter: Button A or B 1x short	LED flashes ²⁾ after 4 s	Transmitter and brightness stored
Dimmer: Button P 1x short	LED goes off	Dimmer is ready for use
Deleting programmed transmitter		
In this mode, individual transmitter can be erased from the memory of the dimmer via Prog button.		
Dimmer: Button P 1x long 5 s	LED flashes quickly in the colour of the configured dimming mode	Dimmer in deleting mode
Sender: Button A or B 1x short	LED lights up 4 s	Transmitter deleted
Dimmer: Button P 1x short		Dimmer is ready for use
Reload default settings (A RESET can only be performed directly at the dimmer, not via VRS transmitter.)		
All paired transmitters are deleted and the following factory settings are restored: Dimming mode: Trailing edge / External button in mode “Dimming without memory function” with single-button operation / Memory value: max. brightness.		
Dimmer: Button P 1x long 5 s	LED flashes quickly in the colour of the configured dimming mode	Dimmer in deleting mode
Dimmer: Button P 1x long	LED lights up 4 s	Factory settings are restored




1) If no button is pressed within 20 seconds, the dimmer will automatically enter a state of operational readiness. The configuration is not stored.
2) If the LED lights red, an attempt is being made to pair an existing transmitter. Clear the paired transmitter.

D2 Programming a radio transmitter – via Prog. button on radio transmitter

If the settings of the dimmer should also be changed in the installed state, a master transmitter must be programmed before installation (see section D).



NOTE!
Only wall transmitter VRS Switch 1 and Switch 2 VRS can be used as a master transmitter!

Press button ¹⁾	Display	Remark
Function 1: Dimming with memory		
① Master transmitter: Prog. button short	Transmitter LED flashes red	 Dimmer in learning mode
② Master transmitter: within 5 s Button A 1x short	Lighting flashes according to function	
③ Additional transmitter: Button A or B short	Lighting lights up 4 s	Transmitter stored and dimmer is ready for use
Function 2: Dimming without memory		
① Master transmitter: Prog. button short	Transmitter LED flashes red	 Dimmer in learning mode
② Master transmitter: within 5 s Button A 2x short	Lighting flashes according to function	
③ Additional transmitter: Button A or B short	Lighting lights up 4 s	Transmitter stored and dimmer is ready for use
Function 3: Switching between fixed brightness values		
⚠ Dim the lights first in a different mode to the desired brightness and keep the light burning.		
① Master transmitter: Prog. button short	Transmitter LED flashes red	 Dimmer in learning mode
② Master transmitter: within 5 s Button A 3x short	Lighting flashes according to function	
③ Additional transmitter: Button A or B short	Lighting lights up 4 s	Transmitter stored and dimmer is ready for use


1) If no button is pressed within 10 seconds, the dimmer will automatically enter a state of operational readiness. The configuration is not stored.

D3 Delete additional programmed transmitter

In order to ensure constant access to the dimmer, the programmed master transmitter is always stored. A master transmitter can't be deleted by himself.

Press button ¹⁾	Display	Remark
① Master transmitter: Prog. button short	Transmitter LED flashes red	Attention! Release the transmitter button after 5 s! Dimmer in deleting mode.
② Master transmitter: within 5 s Button A for 5 s	Lighting flashes rapidly, with full brightness	
③ Additional transmitter: Button A or B short	Lighting lights for 4 s	Transmitter deleted and change in operational readiness after 4 seconds

E Troubleshooting

Display	Problem	Solution
LED flashes RED slowly or lighting can't be switched	Wrong operation mode is set. Check setting, see A3.	Hold down the P button at the dimmer while the LED is flashing until the LED alternately flashes yellow and blue. Then select the correct operating mode as per item A3.
LED flashes RED rapidly	The load current is too high.	The dimmer will automatically reduce the brightness step by step. Reduce average power consumption!
LED lights RED or lighting can't be switched	Short circuit in the lighting or in the connection cable.	Shut off the power supply, eliminate short circuit, reactivate power supply.
LED flashes RED rhythmically 	Temperature increase in housing.	At 80 °C, the device will automatically dim to 50 % of the configured brightness. From 85 °C, the lighting will automatically be shut off. Shut off lighting / reduce illuminant output! The flashing will stop once the temperature has dropped to below 80 °C again.