

RF-L-DST 1-10 V Radio Dimmer

Technical specifications and installation instructions

Item number 60561



1. Description

The **RF-L-DST 1-10 V** is a wireless dimmer for the Elsner RF wireless control protocol. The **RF-L-DST 1-10 V** has a 230 V switch output (16 A) and a 1-10 V control output for dimming. With this the **Radio dimmer RF-L-DST 1-10 V** is specially designed for the connection of electronic enhanced voltage generators (EVG), LED converters or electronic power supplies for low voltage systems.

The lighting connected to the wireless dimmer can be controlled automatically and manually via the WS1 or (KNX) WS1000 Color Style building controller or the Solexa II wireless control system. Alternatively, direct manual operation is possible using the Remo 8/pro wireless remote control, via the RF-B2-UP button interface or the Corlo P RF solar wireless control button.

Functions:

- Dimmer for an electronic ballast, LED converter or electronic power supply unit for low-voltage systems
- 230 V switched output, 16 A
- 1-10 V control output
- Reception of the control signal via radio
- Suitable for: WS1 Color, WS1 Style, WS1000 Color, WS1000 Style, KNX WS1000 Style (each from software version 1.818), Solexa II, Remo 8 (from version 0.1), Remo pro, RF-B2-UP, Corlo P1 RF, Corlo P2 RF

1.1. Deliverables

- Radio dimmer
- STASI locking bow, rubber seals

Available accessories:

- Mains connection wire (5 m)
- Connection wire (available in 1 m; 2,5 m; 5 m)

1.2. Technical data

The device is designed according to the criteria for safety extra-low voltage (SELV). If the 1-10 V control output is to meet the SELV criteria, all connected luminaires and ballasts must also meet the SELV requirements.

| | |
|----------------------|---|
| Housing | Plastic |
| Degree of protection | IP 53* |
| Dimensions | approx. 149 x 72 x 29 (W x H x D, mm) |
| Weight | approx. 180 g |
| Ambient temperature | Operation -20...+55°C, storage -30...+85°C |
| Ambient humidity | max. 95% RH, avoid condensation |
| Operating voltage | 230 V AC, 50 Hz (STAS3 plug) |
| Output | 1 x switched output 230 V, 16 A, STAK3 coupling 1 x dimming 1-10 V, maximum 100 mA, STAK3 coupling |
| Radio frequency | 868.2 MHz (Elsner RF) |

*The **Radio dimmer RF-L-DST 1-10 V** should be installed in a protected area despite a high degree of protection because water can enter in via the connectors. Please observe the instructions in Chapter *Connection*.

The product conforms with the provisions of EU directives.

1.2.1. Illumination brightness (dimming behaviour)

For the Elsner controls, 10 V are specified with 100% dimming brightness (maximum brightness) and 1 V with 10% dimming brightness. How bright the minimum illumination at 1 V actually is and how the brightness changes between 1 and 10 V depends on the connected lighting system.

2. Installation and start-up



Installation, testing, operational start-up and troubleshooting should only be performed by an authorised electrician.



DANGER!

Risk to life from live voltage (mains voltage)!

There are unprotected live components inside the device.

- Inspect the device for damage before installation. Only put undamaged devices into operation.
- Comply with the locally applicable directives, regulations and provisions for electrical installation.
- Immediately take the device or system out of service and secure it against unintentional switch-on if risk-free operation is no longer guaranteed.

Use the device exclusively for building automation and observe the operating instructions. Improper use, modifications to the device or failure to observe the operating instructions will invalidate any warranty or guarantee claims.

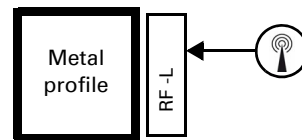
Operate the device only as a fixed-site installation, i.e. only in assembled condition and after conclusion of all installation and operational start-up tasks, and only in the surroundings designated for it.

Elsner Elektronik is not liable for any changes in norms and standards which may occur after publication of these operating instructions.

2.1. Notes on wireless equipment

When planning facilities with devices that communicate via radio, adequate radio reception must be guaranteed. The range of wireless control will be limited by legal regulation and structural circumstances. Avoid sources of interference and obstacles between receiver and transmitter, that could disturb the wireless communication. Those would be for example:

- Walls and ceilings (especially concrete and solar protection glazing).
- Metal surfaces next to the wireless participants (e. g. aluminium construction of a conservatory).
- Other wireless devices and powerful local transmitters (e.g. wireless headphones), which transmit on the same frequency. Please maintain a minimum distance of 30 cm between wireless transmitters for that reason.



The antenna symbol on the housing shows the position of the antenna in the device. This side must not be positioned directly on metal surfaces or objects. Otherwise, the radio signal might be disturbed.

2.2. Installation and connection

The radio module is connected between the appliance and the power supply. It may only be connected to flexible lines using STAK/STAS connectors. The connectors must be locked using the locking bow. Use the provided rubber seals between the STAK/STAS connectors. The connectors must be locked using the STASI locking bow.

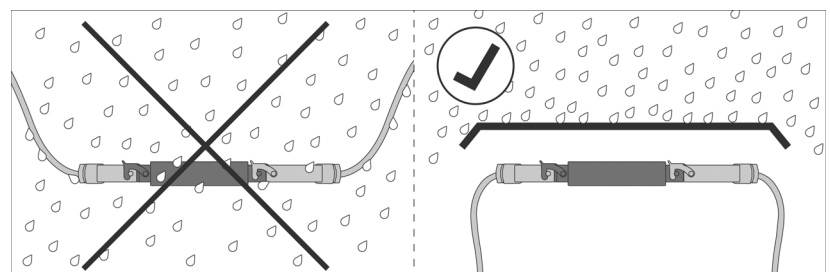


Do not expose to continuous sun radiation to avoid overheating. The housing is not UV-resistant.



No water may run along the supply line and device.

The device must not be exposed to water (rain). This could result in the electronic being damaged. A relative air humidity of 95% must not be exceeded. Avoid bedewing.



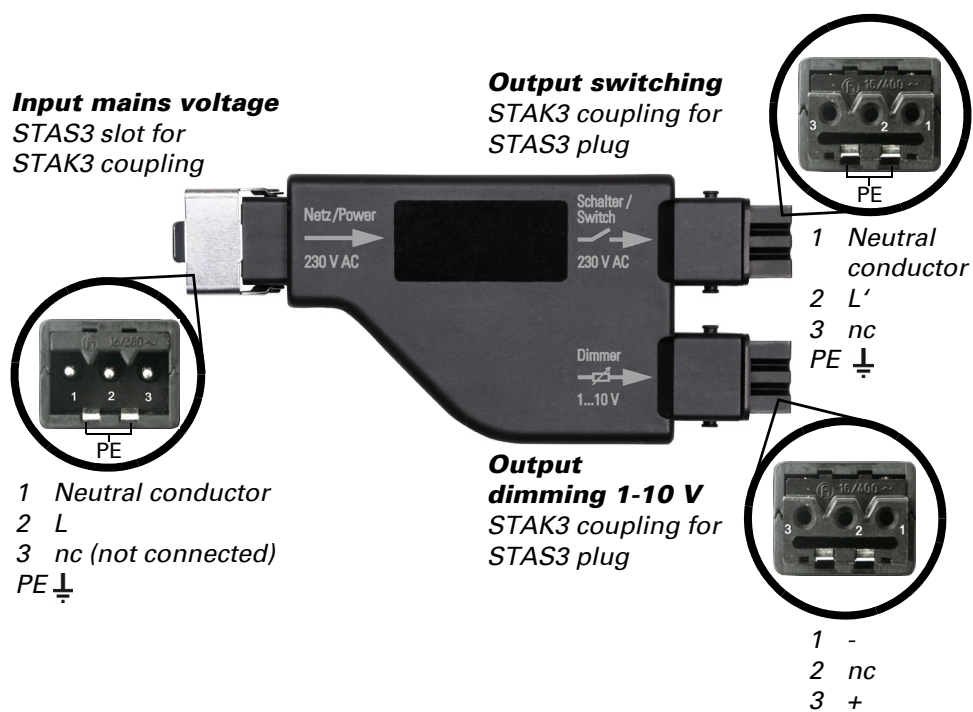
- Assemble the device in a protected area (e. g. in the box for the blinds/marquee/shutters in a construction profile beneath the roof tiles or in a housing).
- Lay the supply lines out and down from the device.



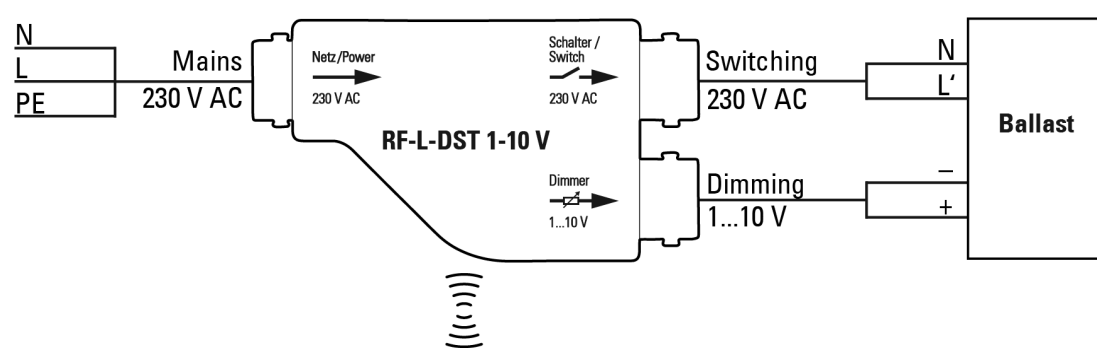
No vibrations!

- Assemble the device in a place that is free of vibrations.

2.3. Connection plan



2.3.1. Connection example



Radio communication via a remote control or a building control system.

Mains connection wire and connection wires are available in different lengths as accessories.

Item numbers: Mains connection wire 60563 (5 m)

Connection wires 60565 (1 m), 60566 (2,5 m), 60567 (5 m)

2.4. Establish wireless connection

1. Set the control unit and/or remote control or the button to teaching mode (observe the corresponding manual/data sheet)
2. Switch on the **RF-L-DST 1-10 V** voltage supply or shut it off for at least 3 seconds if the unit is already supplied with power.
3. For 5 minutes after connecting the voltage, the **RF-L-DST 1-10 V** will send a "Learn" telegram every 10 seconds.
4. The wireless connection will be established automatically. For building control systems, the display will display "Device is learning".
5. The **RF-L-DST 1-10 V** will stop sending "Learn" telegrams once the reply "Learned" (for a learning process) or a control command is received (in the event of a power interruption during operation).

3. Disposal

After use, the device must be disposed of in accordance with the legal regulations. Do not dispose of it with the household waste!