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## STR-4D

Roller blind controller  
for 12/24 V DC



**Do not dispose of this device in the trash along with other waste!** According to the Law on Waste, electro coming from households free of charge and can give any amount to up to that end point of collection, as well as to store the occasion of the purchase of new equipment (in accordance with the principle of old-for-new, regardless of brand). Electro thrown in the trash or abandoned in nature, pose a threat to the environment and human health.



### Purpose

The STR-4D controller is designed to control roller blinds (**UP/DOWN**) or other objects (e.g. gates) that are driven with DC electric motor supplied by 12 V or 24 V with momentary switch (eg. bell).

### Functioning

The controller can operate as a stand-alone device (for opening/closing of a single roller blind), but it is also possible to combine controllers into groups to control multiple roller blinds. Roller blind motor starts after momentary passing of the "+" signal to one of the control inputs. The motor activates for the user-programmed time that allows to fully lift or lower the roller blind.

Roller blind can be stopped on the user-selected level (incomplete opening or closing of the roller blind).

## Control

Controller control inputs are divided into two groups: local control and central control.

### LOCAL CONTROL

Depending on how you connect the controller, it can operate in one or two local buttons mode.

#### One local button

Local control input **DOWN** is connected permanently to the "+" (plus) line. Local control input **UP** is connected to a button that alternately switches the roller blind to move up or down. Short press (<0.5 s) switches on the blind for a programmed time. Pressing the button when the roller blind is already in motion causes the roller blind to stop. Long press (>0.5 s) switches on the roller blind for as long as the button is pressed. Each time you press the button the roller blind will move in the direction opposite to the previous one.

#### Two local buttons

Each direction of movement has its own local button. Short press (<0.5 s) switches on the roller blind to move in a given direction for the programmed period of time. Pressing the button when the roller blind is already in motion causes the roller blind to stop.

Long press (>0.5 s) switches on the roller blind to move in a given direction for as long as the button is pressed (this allows for example to adjust the tilt of slats).



Memory of direction applies both to local and central control. For example, if the controller carries out a **CENTRAL-UP** command, then the next press of a local button will move the roller blind down.



Memory of direction is not retained after a power failure.

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## CENTRAL CONTROL

The controller always works with two central control inputs. Central control allows the roller blinds to move only in the desired direction. Roller blind will stop only after a preset time or by pressing any of the local control buttons.

If during the execution of one center control command another one is issued with the instruction to move in the opposite direction, the roller blind will stop at first and after 1.5 s will then start to move in the opposite direction. Time of roller blind activation can be randomly delayed in the control center (up to 1 s) – to minimize the current surge in the grid in case of simultaneous activation of multiple controllers.

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**CENTRAL-DOWN** button can also close and lock the roller blind in the closed position. If the **CENTRAL-DOWN** button is pressed and left in the **ON** position, the controller will close the roller blind and will not allow for its opening until the **CENTRAL-DOWN** button is released (other inputs will then be locked). This function allows you to lock the roller blinds e.g. when the alarm is armed or when the rainfall (if the additional STR-R rain sensor is used) or too strong wind (if the additional STR-W wind sensor is used) is detected.

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## Assembly



When preparing the installation powered with 12/24 V voltage, it is necessary to provide a power source with sufficient current capacity to supply all receivers. Too small power supply may lead to improper operation of motors and roller shutter controllers. Additionally, voltage drops on cables (mainly power cables) should be taken into account and, if necessary, the diameter of the cables should be increased to reduce the voltage drop.

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1. Disconnect the power supply.
2. Mount the controller on the rail in the distribution box.
3. Connect the controller accordingly to the selected scheme of operation.
4. Switch on the power supply.
5. Program the time of lifting/lowering the roller blind.

## Scheduling time of activation

Time of activation can be programmed upon the assumed time of roller blind operation or by activating the roller blind for the test run.

### Scheduling for the specified time

1. Press and hold (for approx. 4 s) the **PROG** button until the green U LED will begin to flash slowly. The controller is now ready for programming.
2. Short press **PROG** button – the controller starts to measure out the activation time, which is indicated by rapid flashing of U LEDs.
3. After the time has been measured out, press the **PROG** button again. The controller will save the elapsed time in non-volatile memory and then exit the programming mode, which is indicated by the constant U LED light.

### Test run

1. Place the blind in the outmost top or bottom position.
2. Press and hold (for approx. 4s) the **PROG** button until the green U LED will begin to flash slowly. The controller is now ready for programming.
3. Short press the local control **UP** or **DOWN** button (in the opposite direction to the current position of the roller blind). The controller starts the motor and begins to measure out the time.
4. After the time has been measured out, press any of the local control buttons. The roller blind motor will stop and the controller will save the elapsed time in „non-volatile“ memory and then exit the programming mode.



If during the first 30 seconds of the learning mode (slow flashing of U LED) the time measuring will not start (the **PROG** button is pressed or the roller blind is activated from the local control input), the controller will exit the learning mode.

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The controller is designed to measure time span shorter than 15 min. Attempting to set the controller for longer span will result in exit from the learning mode.

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The controller learning mode can be started only when the roller blind motor is turned off.

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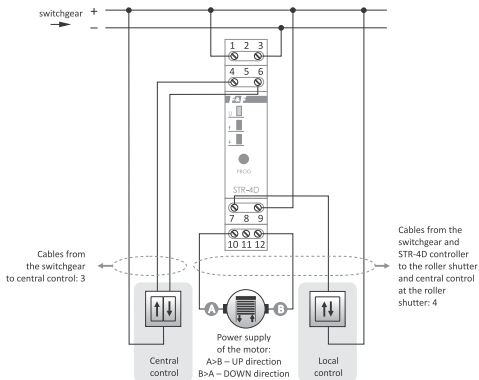


Operation with factory settings (activation time set to 30 seconds) is indicated in standby mode by short (0.1 s) blinking of U LED repeated every 4 s.

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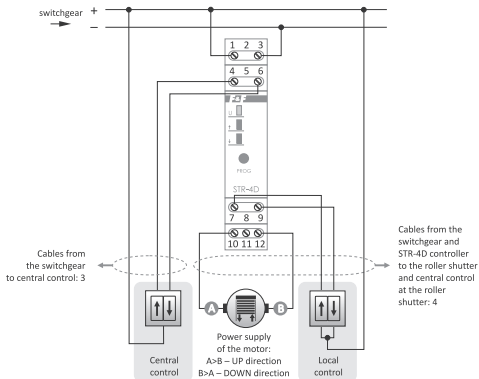
## Connection diagram

### Mode with 1 local button



- 1-3 power supply 10÷27 V DC
- 4 central control – **UP** ↑↑ direction
- 6 central control – **DOWN** ↓↓ direction
- 7 local control – **UP** ↑ direction
- 9 local control – **DOWN** ↓ direction
- 10 motor power supply – terminal A
- 12 motor power supply – terminal B

## Mode with 2 local buttons



- 1-3 power supply 10÷27 V DC
- 4 central control – **UP** ↑↑ direction
- 6 central control – **DOWN** ↓↓ direction
- 7 local control – **UP** ↑ direction
- 9 local control – **DOWN** ↓ direction
- 10 motor power supply – terminal A
- 12 motor power supply – terminal B

## Technical data

power supply	10÷27 V DC
maximum load current (AC-1)	6 A
power consumption	
standby	0.15 W
on	0.6 W
control	triggered with 10÷27 V DC level
switch-on time (adjustable)	1 s÷15 min.
power signalling	LED green
operation and movement direction signalling	2×LED red
working temperature	-25÷50°C
terminal	2.5 mm <sup>2</sup> screw terminals
tightening torque	0.4 Nm
dimensions	1 module (18 mm)
installation	on TH-35 rail
protection level	IP20

## Warranty

F&F products are covered by a 24-month warranty from the date of purchase. The warranty is only valid with proof of purchase. Contact your dealer or contact us directly.

## CE declaration

F&F Filipowski sp. j. declares that the device is in conformity with the essential requirements of The Low Voltage Directive (LVD) 2014/35/EU and the Electromagnetic Compatibility (EMC) Directive 2014/30/UE.

The CE Declaration of Conformity, along with the references to the standards in relation to which conformity is declared, can be found at [www.fif.com.pl](http://www.fif.com.pl) on the product page: [www.fif.com.pl](http://www.fif.com.pl) from the product subpage.