



# F F SSR-5A-D Modular Solid State Relay Instruction Manual

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**SSR-5A-D**  
**Modular solid-state relay**



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### **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 SSR-5A-D solid-state modular relay is designed to control loads up to 5 A and supplied with 60÷265 V AC.

## **Characteristics**


- Load switching at “zero” – reducing current surge when switching a circuit (e.g. LED lighting);
- Built-in thermal protection and operation indication;
- Silent operation;
- Switching on without sparking or contact vibration;
- Unlimited number of switching operations;
- DIN rail mounting, width 1S.

## **Functioning**

Applying voltage to control terminals 1-3 activates an electronic switch which closes the circuit between terminals 10-12. The circuit is closed when the supply voltage sine wave passes through „zero”, which makes it possible to limit current surges when connecting a capacitive load. Activation of the circuit is signalled by a green indicator light . When the supply voltage decays, the contact between terminals 10-12 is opened.

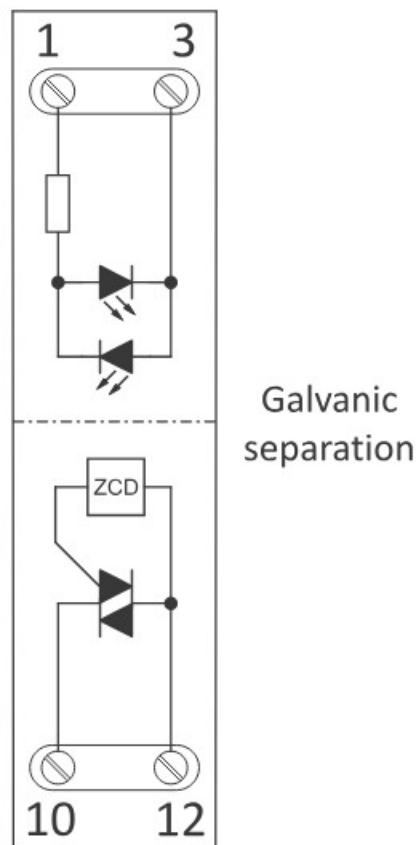
### **Thermal protection**

SSR-5A-D relay is equipped with a thermal protection system disconnecting the load if the permissible temperature inside the device is exceeded. Activation of the protection is additionally signalled by a red indicator

light . The load will be automatically switched on again when the temperature inside the device drops to the safe level.

## **Mounting**

A simplified internal schematic of the relay is shown in the diagram below:



The SSR-5A-D relay is designed for low AC/DC voltage control (max. 32 V DC/27 V AC). Connecting to control terminals 1-3 of the 230 V mains voltage will lead to destruction of the device!



The solid-state relay emits a large amount of heat when operating under load (up to approximately 5 W at a rated load of 5 A). Therefore, proper cooling must be taken into account to guarantee correct operation:

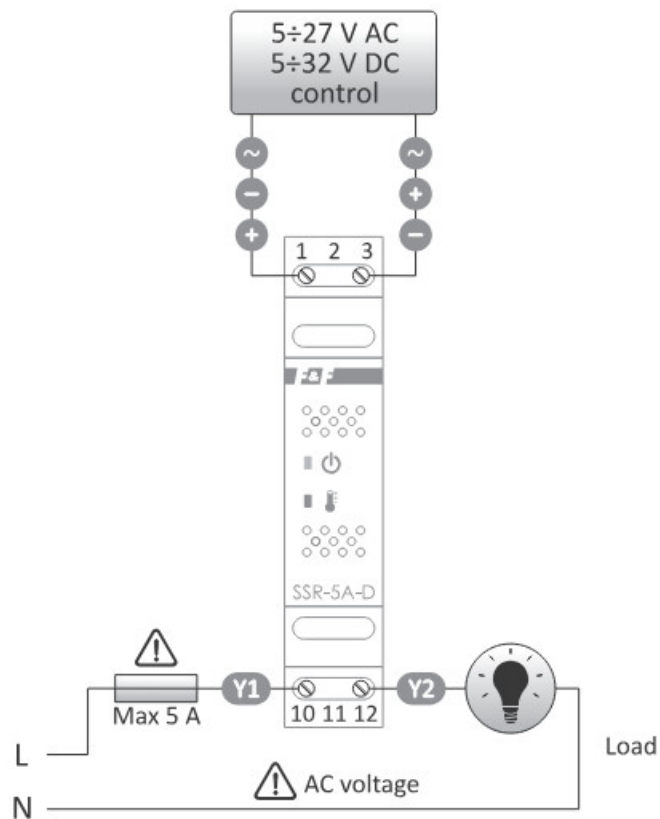
- do not block the ventilation openings on the front facade;
- provide free space on both sides of the unit to facilitate heat dissipation through the side walls of the relay.



The relay has no built-in short-circuit or overcurrent protection. It is recommended to protect the current circuit with a delayed fuse with a current adapted to the rated load current, but not more than 5 A.

### Wiring diagram

1. Connect the control voltage (switching load) to terminals 1-3, the polarity of the control signal is arbitrary.
2. Connect the controlled load in series via terminals 10-12 of the relay to the AC power source.



## Technical data

### input

power supply	5÷32 V DC/ 5÷27 V AC
power consumption	<0.2W

### output

contact	1×NO
actuator	triac
rated voltage	230V AC
rated current	5A
maximum activation current	150A/10ms
activation delay	<20ms
power loss (for 5A)	4W

## general parameters

thermal protection	100°C
power indication	green LED
over temperature indication and disconnect the receiver	red LED
IN/OUT isolation	3kV
terminal	2.5mm <sup>2</sup> screw terminals
tightening torque	0.4Nm
working temperature	-20÷50°C*
dimensions	1 module (18mm)
mounting	on TH-35 rail
ingress protection	IP20

\* Limit temperature depends on load current and ventilation conditions

## 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 L.P. 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 [www.fif.com.pl](http://www.fif.com.pl) on the product subpage.



**F&F Filipowski L.P.**

Konstantynowska 79/81, 95-200 Pabianice, POLAND

phone/fax (+48 42) 215 23 83 / (+48 42) 227 09 71

[www.fif.com.pl](http://www.fif.com.pl); e-mail: [biuro@fif.com.pl](mailto:biuro@fif.com.pl)

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## Documents / Resources



**[F F SSR-5A-D Modular Solid State Relay](#) [pdf] Instruction Manual**  
SSR-5A-D Modular Solid State Relay, SSR-5A-D, Modular Solid State Relay, Solid State Relay, State Relay, Relay

**References**

- **[User Manual](#)**

**[Manuals+](#), [Privacy Policy](#)**

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