

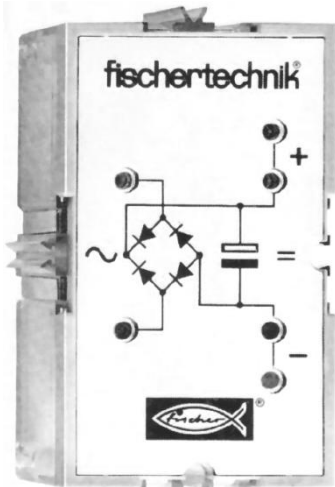
fischertechnik h4 GB

RECTIFIER

Electronic-Module

Order No. 30811





Technical Data:

Rated operating voltage: (input voltage)	7 Volt AC or 9 Volt DC
Max. permissible input:	13 Volt peak
Rated output voltage:	9 Volt DC
Max. current allowed:	800mA
Charge capacitor:	2200 μ F / 16 Volt

This Rectifier building block corresponds to the building block of the same name in the electronic kit ec and in the hobby 4 kit. An additional rectifier module is only needed if you want to solve special tasks in connection with another fischertechnik power supply unit.

All circuits with electronic fischertechnik modules for controlling machines and for counting or storing electrical signals require a DC voltage, similar to a battery voltage, of 9 Volts. In the long run, however, batteries are too expensive, and they have the unfortunate property that they go "flat" just when they are urgently needed and you do not have a new one.

It is therefore imperative to use a power supply unit which converts the mains voltage from 220V to approximately 6-7V. Such power supply units are in the form of mot. 4 (with DC and AC voltage output) and mot. 8 (DC output only).

The voltage available at the alternating voltage output of mot. 4 must first be rectified and then smoothed. The fischertechnik-Controller-Device was developed for these tasks. It has an input for alternating current (~), and two outputs for the positive and negative poles of the obtained DC voltage.

However, the DC voltage supplied by both fischertechnik power supplies also contains a ripple, which has no influence on the operation of fischertechnik lamps and motors, but can have a very disturbing effect on electronic circuits.

It is also possible to connect the input of the rectifier module to the DC voltage of the power supply unit.

The built-in capacitor ensures the necessary smoothing of the DC voltage. It is not necessary to pay attention to the polarity of the connections of the power supply, as the built-in full-bridge rectifier ensures correct polarity on the electrolytic capacitor.

Many of the fischertechnik electronic modules have no input sockets for the power supply. This is fed by the side-mounted power distribution rails in the correct polarity. Your rectifier module has these rails.

All other fischertechnik electronic modules are automatically connected to the rectifier module by sliding them together and inserting the red connector supplied with each module.

The circuit diagram of the rectifier module, the theoretical explanations and numerous suggestions for its use can be found in the hobby experiment and model books, volumes 4-1 / 4-2 / 4-3.

Please note the following so that your rectifier block is not damaged:

Never connect the output sockets "+" and "-" of the rectifier module to the alternating voltage output of the mot. 4 power supply! The built-in charging capacitor may be destroyed!

Translated by: Peter King,
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