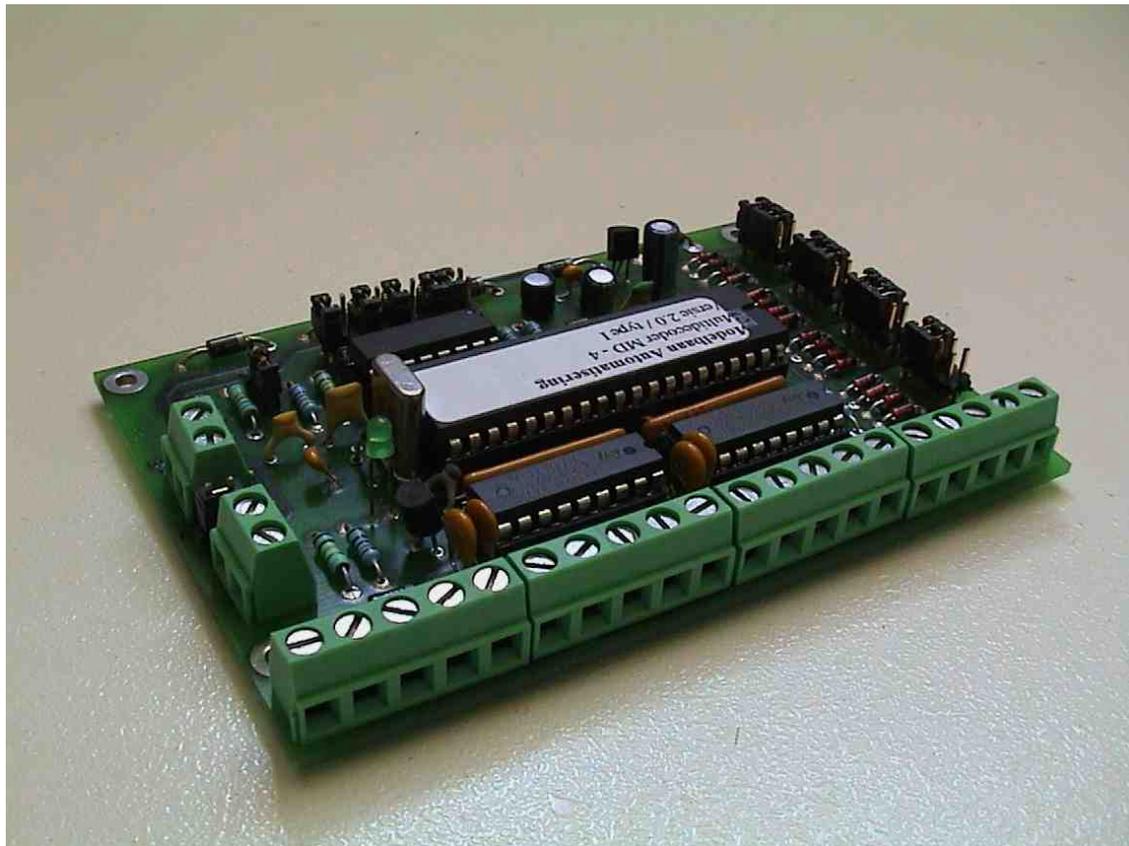# Multidecoder (MD-4)

With this decoder you can easily control (pre-) signals, which have more then two lights.
Usually the 2-colour signal will be used because the function of this signal is commonly used (stop/riding).
In the actual situation, these different signal-pictures do have an important meaning. The engine driver decides on the basis of the signal his speed.
Even with the digital systems nothing has changed, however if you would like to control complex signals the control of these signals will be also complex. You will need relays or diode-matrices to show the correct signal-pictures.
With digital you can "connect" several outputs together to control this type of signal, but this will require more the one output and this is not easily to control. Besides it is only for cosmetic purposes.

The Multidecoder is a **new type of decoder,** which is equipped with a microprocessor. This decoder is compatible with the Märklin decoder (K83 and K84) and replaces both for one type of decoder. With this decoder you can switch 4 points/signals or 4 functions.

Further this decoder has the follow extra facilities:

* Switch time to control coils is adjustable (0.2 / 2.0 / 4.0 seconds), hence independent of the control (keyboard or software)
* 4-colour light signals (signal-pictures) are controlled by <u>one function-output</u> (according to Dutch, German, Belgium/Luxembourg, Swiss and Austrian standards; others on application)
* Adjustable for level crossing (flashing light)
* Decoder can be used as function decoder too (F1…F4)
* Outputs are protected against overloading
* Checking of correct address codes
* Easily to jumper
* Suitable for external power supply (=)
* Watchdog function (apply a relay, not included)

Decoder only works with a digital system, which supports the <u>MOTOROLA FORMAT</u>. For example MÄRKLIN ~ or the PC CONTROL CARD.

Design:
Decoder is suitable for 4 points and/or 4 signals, whereby the signals could be 2 or more lights or a function decoder with 4 functions.
Combinations are also possible, e.g.: 2 points, 1 2-colour signal and 1 more colour signal.
Outputs are protected against overloading. Mini jumpers determine settings.
Dimensions print ca. 105 * 75 mm.

Connection:
Print-connector with screws.