# Signal decoder Hobby-light signals SIG-DEC Hobby



# **Generally**

The digital signal decoder for light signals, SIG-DEC hobby, has 4 x 2 controllable outputs that can be used to switch from four main and warning signals or four Gleissperrsignal signals. The light changes prototypically takes place here "soft" so as to imitate the soft glimmer and extinction of a light bulb. In addition to the switching signal, the decoder about the possibility of automatic train control features by switching off the train before the current position signal at stop

The decoder can nevertheless be digital as well as analog switches. In addition to the digital way with a keyboard, computer or similar can be said decoder by means of a control desk, for example FTE 7271/7272, which switches to ground switch. Similarly, the switching by the moving train, for example, the switch with reed contacts, switching tracks or occupancy detectors to earth, take place.

## Connection of the decoder to the digital system

# !! First switch the voltage from your layout !!

The connection of the decoder to your digital system, you can make equally by the central unit or from the track. To do this, connect the left terminals connected to the system. The terminal "B" with the red wire of the control unit connected or the center conductor rail, port "0" with the brown wire of the control unit or the general traction current mass. Pay attention to the polarity of the connections. However, if you use the upper or lower terminals of this is irrelevant because these ports are connected in parallel. As a rule, these jacks are used for connection to the next decoder.

Moreover, the receiver requires an additional power supply from a separate AC transformer, 16 -18 V ~.

The terminal "L" of the transformer, yellow cable is connected to the socket "L" of the decoder, the terminal "0" of the transformer, the brown wire to the socket "0" of the decoder.



By the internal technical peculiarities of the signals from the amateur series of the connection must be exactly as shown!

The signals connect as shown in the main signal to the terminal "HS", the warning signal of "VS". Please pay attention to the cable colors !! The dark blue cables have connectors to the decoder, the light blue cable to earth!

#### Gleissperrsignal signals please close as distant signals in!

In keeping with the respective signal you can also train control. Remove one piece of track from 1.5 - 2 whole track lengths from the general track circuit. Connect the separated section of track with terminal "Gr" at the decoder, the terminal "Gem" with the general traction current "B". On the decoder is a switch that "green" traction current to the separated section of track turns on at and "red" interrupts at.

## The programming process

In order to maximize the flexibility available to the decoder via a single programming. This means that you can assign to each output any address. The outputs are not grouped in blocks of four addresses. For programming, the signals must not be connected. The relay on the decoder you are here to control the programming process. So you can before installing the Decoder program the device.

Turn off the power of the model railway again. Press the programming button "Prog". Now is the decoder programming status. You will notice this because the relay of the output "1" rhythmically switches. The decoder is now waiting for a digital command. Press the desired address to your Control Center, or enter a command from your PC to assign the decoder at the output "1" the desired address, for example, address the 69th *of this must necessarily the green !! !! Button can be used!* After the given time you press the headquarters, the address "69" is now at the "1" is stored.

Now the second relay back and forth begins to turn. This is also the indication that the decoder has "understood" the first address and thus to be understood as an acknowledgment. Follow the same procedure

as described for the second output above. Use only an address as "69". in the same way Now follows the programming for the outputs "3" and "4", each with different addresses.

The assigned addresses must necessarily *! no!* be consecutive. For example, in a decoder address assignment "69", "117", "18" and "320" conceivable. All outputs have been programmed, the addresses are stored permanently. The programming process can be repeated any number of times, so you always have the option to assign new addresses to the individual outputs.

#### Operation of the decoder in a conventional manner

The decoder can also be used with the aid of a normal control panel. Thus, the presence of a digital system to use in purely analog environment is not necessary and entirely possible. It is merely a transformer to supply the SIG-DEC hobby can be connected. Likewise, the decoder can be simultaneously controlled digital and analog. The control panel must merely as usual turn, to ground. Close this your control box, as shown, on the side of the respective double pinch. If you have a control console from the previous generation have blue version, the cable must be connected crossed here.



In addition to the purely manual switching circuit also by the moving train is not a problem. . Can with the help of a switching circuit to ground track, a reed contact or similar realize that simple. Likewise, the use of occupancy detectors, the switch to ground, for switching the SIG-DEC hobby is possible.



With the help of a GBM-R is a simple block operation to realize. In the pictured example, the train has just the signal "2" happened and switched to maintenance. At the same time it switches the previous signal "1" to ride. Also, a UK-M1 be used for switching.

Would you like to zeigendem gentle stopping the trains at a stop signal, use a signal / brake module, you can combine the hobby in a simple way with the SIG-DEC. Use the terminals for the train control system, as shown, for driving a corresponding module.



Note that the train control system of the SIG-DEC is made hobby with a switch contact. The signal / brake modules from our company can be safely operated with a continuous contact. If you are using signal / brake modules from other manufacturers, so check your owner's manual to see if your modules also with a permanent contact and can not be operated only with a pulse!



So the connection would look like in reality,

#### **Technical Specifications**

Data format Motorola Address range: 1 320 Max. Switching current 2 A Max. External operating voltage 18 V ~ Function: assembly, 4 x 2 ports each for a main signal and one each distant signal Fading is the signal lights, Same brightness in red and green, No loss of brightness when connecting a main and distant signal Train control. Short-circuit proof Digital and analog switchable

**Platinum Dimensions:** 

75 x 110 mm