Roco Fleischmann Control Car With Dc Function Decoder

Roco Fleischmann Control Car With Dc Function Decoder Instruction Manual

Roco Fleischmann Control Car With Dc Function Decoder

Roco Fleischmann Control Car With Dc Function Decoder

Contents

SPECIFICATIONS

This DCC-DECODER ensures that in the DC mode, the white or red headlights of the cab car are turned on and off depending on the direction of travel and that the destination indicator above the cab always is turned on.
In digital mode, the functions of the cab car with the digital address of 3, are individually switched as follows:
F0 headlights
Functions and settings of the decoder may be set in wide ranges using the CVs (CV = Configuration variable), see CV table.

PROPERTIES OF THE DCC-DECODER

The function decoder is designed for switching functions, e. g. light within the DCC system. It has no motor connections and should be installed mainly in coaches, control-cab coaches and similar, to switch on and off the headlights or illumination etc. It works correctly on conventional DC-layouts as well. The decoder has 4 outputs, of which two are pre-adjusted for alternating the red white lighting at the front-side. Two other outputs can be activated using the F1 or F2 functions of the controller. The assignment however may be altered for each of the function outputs. Every output is capable of providing current up to 200 mA. For each output the brightness can be adjusted (dimmed) individually, or else a blinking operation may be selected.

Max. size: 20 x 11 x 3.5 mm · Load capacity
(as per each output): 200 mA · Address:
Electronically codeable · Light Output: Protected against short circuit, switches off · Overheating: Switches off when overheated
· Sender function: Already integrated for RailCom1).

Power to the motor will be turned off once that temperature exceeds 100°C. The headlights start flashing rapidly, at about 5 Hz, to make this state visible to the operator. Motor control will resume automatically after a drop in temperature of about 20°C, typically in about 30 seconds.

Note:
The digital DCC-DECODERS are high value products of the most modern electronics, and therefore must be handled with the greatest of care:

- Liquids (i. e. oil, water, cleaning fluid …) will damage the DCC-DECODER.
- The DCC-DECODER can be damaged both electrically or mechanically by unnecessary contact with tools (tweezers, screwdrivers, etc.)
- Rough handling (i. e. pulling on the wires, bending the components) can cause mechanical or electrical damage
- Soldering onto the DCC-DECODER can lead to failure.
- Because of the possible short circuit hazard, please note: Before handling the DCC-DECODER, ensure that you are in contact with suitable earth (i. e. radiator).

DCC OPERATION

Locos with inbuilt DCC-DECODER can be used with the FLEISCHMANN-controllers LOK-BOSS (6865), PROFI-BOSS (686601), multiMAUS®, multiMAUS®PRO, WLAN-multiMAUS®, TWIN-CENTER (6802), Z21® and z21®start conforming to the NMRA standard. Which DCC-decoder functions can be used within which parameters are fully described in the respective operating instructions of the respective controller. The prescribed functions shown in the instruction leaflets included with our controllers are fully useable with the DCC-decoder.

The simultaneous, compatible running possibilities with D.C. vehicles on the same electrical circuit is not possible with DCC controllers conforming to NMRA standards (see also manual of the respective controller).

PROGRAMMING WITH DCC

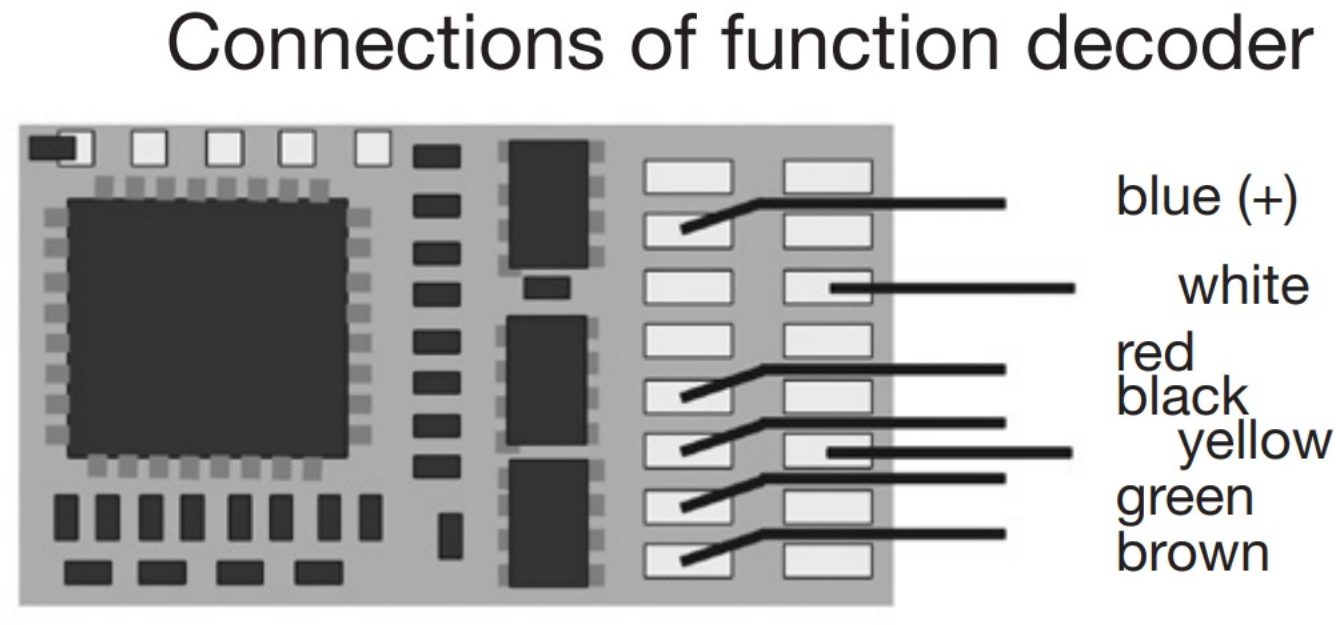
The DCC-decoder enables a range of further settable possibilities and information according to its characteristics. This information is stored in so-called CVs (CV = Configuration Variable). There are CVs which store only a single information, the so-called Byte, and others that contain 8 pieces of information (Bits). The Bits are numbered from 0 to 7. When programming, you will need that knowledge. The CVs required we have listed for you (see CV table).

The programming of the CVs can be done with any controller which is capable of the programming by bits and bytes in mode ”CV direct“. The programming of some CVs by register-programming is also possible. Further more, all CVs can be programmed byte-wise on the main track, independently from the programming-track. However, this is possible only if your appliance is capable of this programming-mode (POM – program on main).

Further information concerning that issue is given in the respective manuals and operating instructions of the digital controllers.

ANALOG OPERATION

You want to run your DCC-loco once in while on a DC layout? No problem at all, because as delivered, we have adjusted the respective CV29 in our decoders so that they can run on ”analog“ layouts as well! However, you may not be able to enjoy the full range of digital technique highlights.



Anschlussbelegung:
blue: U+
white: light forward
red: right rail
black: left rail
yellow: light backward
green: FA 1
brown: FA 2

CV-VALUES OF THE DCC-function-decoder

CV	Name	Pre-setting	Description	
1	Loco address	3	DCC: 1–127	Motorola2): 1-80
3	Acceleration rate	3	Inertia value when accelerating (range of values: 0-255). With this CV the decoder can be adjusted to the delay value of the loco.	
4	Deceleration rate	3	Inertia value when braking (range of values: 0-255). With this CV the decoder can be adjusted to the delay value of the loco.	
7	Version-no.		Read only: Software version of the decoder (see also CV65).	
8	Manufacturer ID	145	Read: NMRA identification no. of manufacturer. **Zimo** is 145 Write: By programming CV8 = 8 you can achieve a **Reset** to the factory default settings.	
17	Extended address (Upper section)	0	Upper section of additional addresses, value: 128 – 9999. Effective for DCC with CV29 Bit 5=1.	
18	Extended address (Lower section)	0	Lower section of additional addresses, value: 128 – 9999. Effective for DCC with CV29 Bit 5=1.	
28	RailCom1) Configuration	3	Bit 0=1: RailCom1) channel 1 (Broadcast) is switched on. Bit 0=0: switched off. Bit 1=1: RailCom1) channel 2 (Daten) is switched on. Bit 1=0: switched off.	
29	Configuration variable	Bit 0=0 Bit 1=1	Bit 0:With Bit 0=1 the direction of travel is reversed. Bit 1:Basic value 1 is valid for controllers with 28/128 speed levels. For controllers with 14 speed levels use Bit 1=0. Feed current detection: Bit 2=1: DC travel (analog) possible. Bit 2=0: DC travel off. Bit 3:With Bit 3=1 RailCom1) is switched on. With Bit 3=0 it is switched off. Switching between 3-point-curve (Bit 4=0) and speed table (Bit 4=1 in CV67-94. Bit 5: for use of the additional addresses 128 – 9999 set Bit 5=1.	
		Bit 2=1		
		Bit 3=0 Bit 4=0		
		Bit 5=0		
33	F0v	1	Matrix for assignment of internal to external function (RP 9.2.2) Light forward	
34	F0r	2	Light backward	
35	F1	4	FA 1	
36	F2	8	FA 2	
60	Dimming the function output	0	Reduction of the effective voltage to the function outputs. All function outputs will be dimmed simultaneously (range of values: 0 – 255).	
65	Subversion-no.		Read only: Software subversion of the decoder (see also CV7).	

FUNCTION MAPPING

The function keys of the controller can be assigned to the function outputs of the decoder freely. For the assignment of function keys to function outputs the subsequent CVs must be programmed with values according to the table.

CV	Key	FA 2	Destination indicator	Headlight rear white	Headlight rear red	Value
33	F0v	8	4	2	**1**	**1**
34	F0r	8	4	**2**	1	**2**
35	F1	8	**4**	2	1	**4**
36	F2	**8**	4	2	1	**8**

ADVICE ON SWITCHING OFF

To switch off your model railway controller, first of all activate the emergency stop function of the controller (see instructions with the controller). Then finally, pull out the mains plug of the controller power supply; otherwise you might damage the appliance. If you ignore this critical advice, damage could be caused to the equipment.

RAILCOM1)

The decoder in this car has „RailCom1)“, i.e. it does not only receive data from the control center, but can also return data to a RailCom1) capable control center. For more information please refer to the manual of your RailCom1) capable control center. By default RailCom1) is switched off (CV29, Bit 3=0). For operation at a control center that does not have RailCom1) capability, we recommend to leave RailCom1) switched off.

Detailed information are also available at **www.zimo.at** amongst other in the operation manual “MX-Functions-Decoder.pdf“, for decoder MX685.

1. RailCom is a registered trademark of Lenz GmbH, Giessen
2. Motorola is a protected trademark of Motorola Inc., TempePhoenix (Arizona/USA)

Customer Support

Modelleisenbahn GmbH
Plainbachstr. 4 | 5101 Bergheim | Austria
www.z21.eu
www.roco.cc
www.fleischmann.de

Documents / Resources

	Roco Fleischmann Control Car With Dc Function Decoder [pdf] Instruction Manual Control Car With Dc Function Decoder, Control, Car With Dc Function Decoder, Function Decoder, Decoder

References

- FLEISCHMANN Modelleisenbahn
- ROCO Modelleisenbahn
- Roco z21
- Page has moved