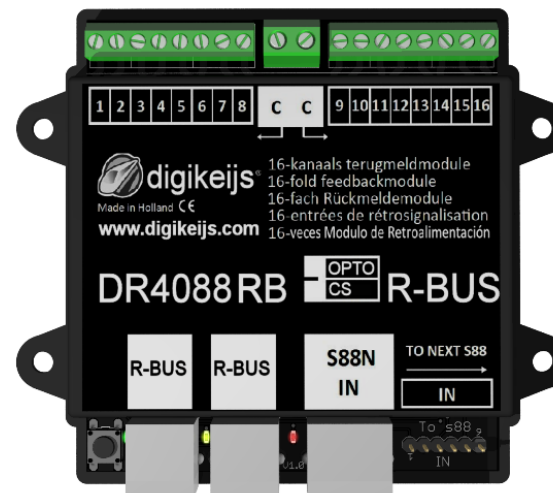


# DR 4088RB-xx

## Instruction manual

(2021-07-06)



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## 1.2 Warranty and warranty conditions

All our products come with a 24-month manufacturer's warranty. Please read these operating instructions carefully.

Damage to the product caused by non-compliance with these instructions will invalidate the warranty.

ATTENTION: The warranty is void if the housing of the product is opened.

## 1.3 Legal information

Printing errors and mistakes, technical or other changes as well as changes in the availability of individual products are expressly reserved.

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We reserve the right to change the design of the product, the software and / or the firmware without prior notice.

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## 2.0 Product overview

### 2.1 General product information

The DR4088RB-xx is a feedback module that can be connected to the control panel via the R-Bus®.

The DR4088RB-xx has 16 feedback inputs.

The DR4088RB-xx is available as CS version (current sensor 2-wire track) and OPTO version (connection of reed contacts, 3-wire track signal to track ground).

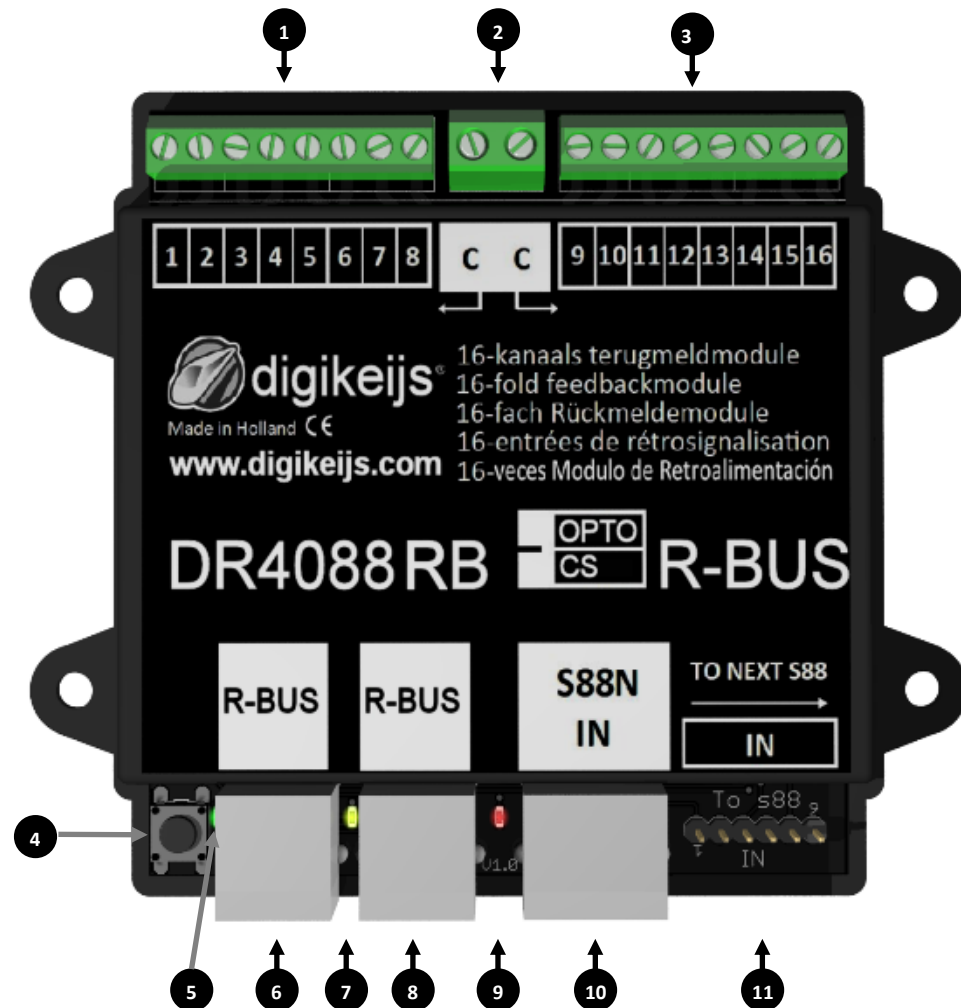
### 2.2 Technical specifications

The connection terminals of the 16 feedback units are designed for a cross-section of 0.5mm<sup>2</sup>, the two terminals for "C" are designed for a cross-section of 0.75mm<sup>2</sup>.

	Number of inputs	Suitable for	Minimum load for safe reporting	Max. load per contact Load per contact	Max. load per contact Load capacity per contact for max. 100 ms	Peak load for 8 feedbacks at "C" total.	Peak load for 8 feedbacks at "C" total
<b>DR4088CS</b>	2 x 8	2 conductors	2 mA	2 A	5 A	6 A an „C“	6 A an „C“
<b>DR4088OPTO</b>	2 x 8	3 conductors when using the DR50xx	-	-		-	-

## 2.3 Hardware Overview

- 1 Connection feedback 1 to 8
- 2 Common connection "C" for the right or left detector group. Feedback group.
- 3 Connection feedback 9 to 16
- 4 programming button
- 5 **green** LED  
(flashes as soon as the power supply is available)  
In addition, the LED signals by different flashing cycles the two programming levels.
- 6 R-Bus® connection
- 7 **yellow** LED  
(flashes during activity on the R-Bus®)
- 8 R-Bus® connection
- 9 **red** LED  
(flashing during load or activity at S88N connection)
- 10 S88N In connection
- 11 S88 In connection



## 3.0 Programming

**First, something fundamental about the R-Bus®:**

1. The R-Bus® is always divided into two lines. The first string begins with module address 1 and the second string with module address 11.
2. A maximum of 160 feedback modules can be added to the R-Bus®.
3. The R-Bus® requires that a module consists of 8 feedback modules.
4. However, the DR4088RB contains 16 feedback modules.
5. The 1st DR4088RB is assigned the module addresses 1 and 2.
6. The 2nd DR4088RB is assigned module addresses 3 and 4.
7. etc.

## 3.1 Programming DR4088RB without further DR4088 at the S88N port

It is important that the DR4088RB-xx must receive the module address once (i.e. 1,3,5,7, etc.) so that the DR4018RB-xx knows which module address it starts with. In addition, the DR4088RB-xx must be informed that it consists of 2 x 8 feedbacks.

### 3.1.1 Programming with the DR5000

1. Open the DR5000 Tool
2. Properties Call XN-FB Bus
3. FB Call Programming Module
4. Now just follow the instructions in the wizard.



Please refer to the instructions above for programming the number of modules.

**Example:**

<b>DR4088RB-xx</b> —>	<b>DR4088RB-xx</b>
Modul adress 1	Modul adresse 3
Number of modules = 2	Number of modules = 2

<b>DR4088RB-xx</b> —>	<b>DR4088RB-xx</b> —>	<b>DR4088RB-xx</b>	<b>DR4088RB-xx</b>	<b>DR4088RB-xx</b>
Modul address 1	Modul address 3	Modul address 5	Modul address 7	Modul address 9
Number of modules = 2	Number of modules = 2	Number of modules = 2	Number of modules = 2	Number of modules = 2

## 3.1.2 Programming with the Z21® and the Maintenance Tool.

1. Press the 1st key on the **DR4088RB-xx**, the green LED starts flashing.
2. In the Maintenance Tool, send module address 1 (3,5,7, etc.) to the **DR4088RB-xx** via the Programming button.
3. always confirm the procedure with OK until the end of the dialog.
4. The green LED flashes again as at the beginning.
5. Press the key on the **DR4088RB-xx** twice in quick succession.
6. The green LED now flashes at a different rate than before.
7. In the Maintenance Tool, send module address 2 to the **DR4088RB-xx** via the button Program.
8. always confirm the procedure with OK until the end of the dialog.
9. the green LED flashes now again as at the beginning.

Please refer to the instructions above for programming the number of modules, for.

example:

<b>DR4088RB-xx</b> —>	<b>DR4088RB-xx</b>
Module address 1	Module address 3
Number of modules = 2	Number of modules = 2

<b>DR4088RB-xx</b> —>	<b>DR4088RB-xx</b> —>	<b>DR4088RB-xx</b>	<b>DR4088RB-xx</b>	<b>DR4088RB-xx</b>
Module address 1	Module address 3	Module address 5	Module address 7	Module address 9^
Number of modules = 2	Number of modules = 2	Number of modules = 2	Number of modules = 2	Number of modules = 2

## 3.2 Programming DR4088RB with further DR4088 at S88(N) connection

It is important that the DR4088RB-xx must receive the module address once so that the DR4018RB-xx knows which module address it starts with. In addition, the DR4088RB-xx must be informed that it consists of X times 8 feedbacks.

This means:

If another DR4088xx is connected to the S88 connection of the DR4088RB-xx, the number of modules increases from 2 to 4.

If the DR4088RB-xx a second DR4088xx is plugged into the S88 connection, the number of modules increases from 4 to 6, and so on.  
etc.

**Attention!** A maximum of four DR4088xx can be connected to the S88 connection on each string consisting of one DR4088RB-xx. This means that the DR4088RB-xx is assigned module address 1 and then the number of modules 10 is transferred. This means that a maximum of 80 feedbacks are available on string 1.

If a second line is now set up at the R-Bus®, it starts with module address 11. Here, too, a maximum of 4 additional DR4088xx can be connected to the S88 connection of the DR4088RB-xx. The second step here is to transfer the number of modules 10 to the DR4088RB-xx. A maximum of 80 feedback modules are now also available on this line.

### 3.2.1 Programming with the DR5000

1. Open the DR5000 Tool
2. Properties Call XN-FB Bus
3. FB Call Programming Module
4. Now just follow the instructions in the wizard.

Please refer to the instructions above for programming the number of modules.

**Example:**

**DR4088RB-xx** —> **DR4088xx**

Modul address 1

Number of modules = 4 (x 8 feedback units)

**DR4088RB-xx** —> **DR4088xx** —> **DR4088xx** —> **DR4088xx** —> **DR4088xx**

Modul address 1

Number of modules = 10 (x 8 feedback)



**Important!** When using the LN or RB module, the ext88N IN number of 16 and 8 input modules must be set to 0 on the DR5000. This can be checked if in the feedback monitor row 1 and row 9 are white with blue and not red!



### 3.2.2 Programming with the Z21® and the maintenance tool.

1. Press the key on the DR4088RB-xx, the green LED starts flashing.
2. In the Maintenance Tool, send module address 1 to the DR4088RB-xx via the Program button.
3. Always confirm the procedure with OK until the end of the dialog.
4. The green LED now flashes again as at the beginning.
5. Now press the key on the DR4088RB-xx twice in quick succession.
6. The green LED now flashes at a different rate than before.
7. In the Maintenance Tool, send the module address 4,6,8 or 10 to the DR4088RB-xx via the Programming button, depending on the number of available modules.
8. Always confirm the procedure with OK until the end of the dialog.
9. The green LED now flashes again as at the beginning.

Please refer to the instructions above for programming the number of modules.

**Example:**

**DR4088RB-xx —> DR4088xx**

Module address 1

Number of modules = 4 (x 8 feedback units)

**DR4088RB-xx —> DR4088xx —> DR4088xx —> DR4088xx —> DR4088xx**

Module address 1

Number of modules = 10 (x 8 feedback)

## 3.3 Reset DR4088RB-xx

**Important! The DR4088RB-xx The DR4088RB-xx has no function for resetting to factory settings!**

This is also not necessary because no other functions can be set in the DR4088RB-xx except for the module address and the number of modules. To reset the module address back to the basic setting 1, it is sufficient to send it again to the DR4088 RB as described above. For the number of modules 2 more modules have to be sent to the DR4088RB-xx. Further steps are not necessary.

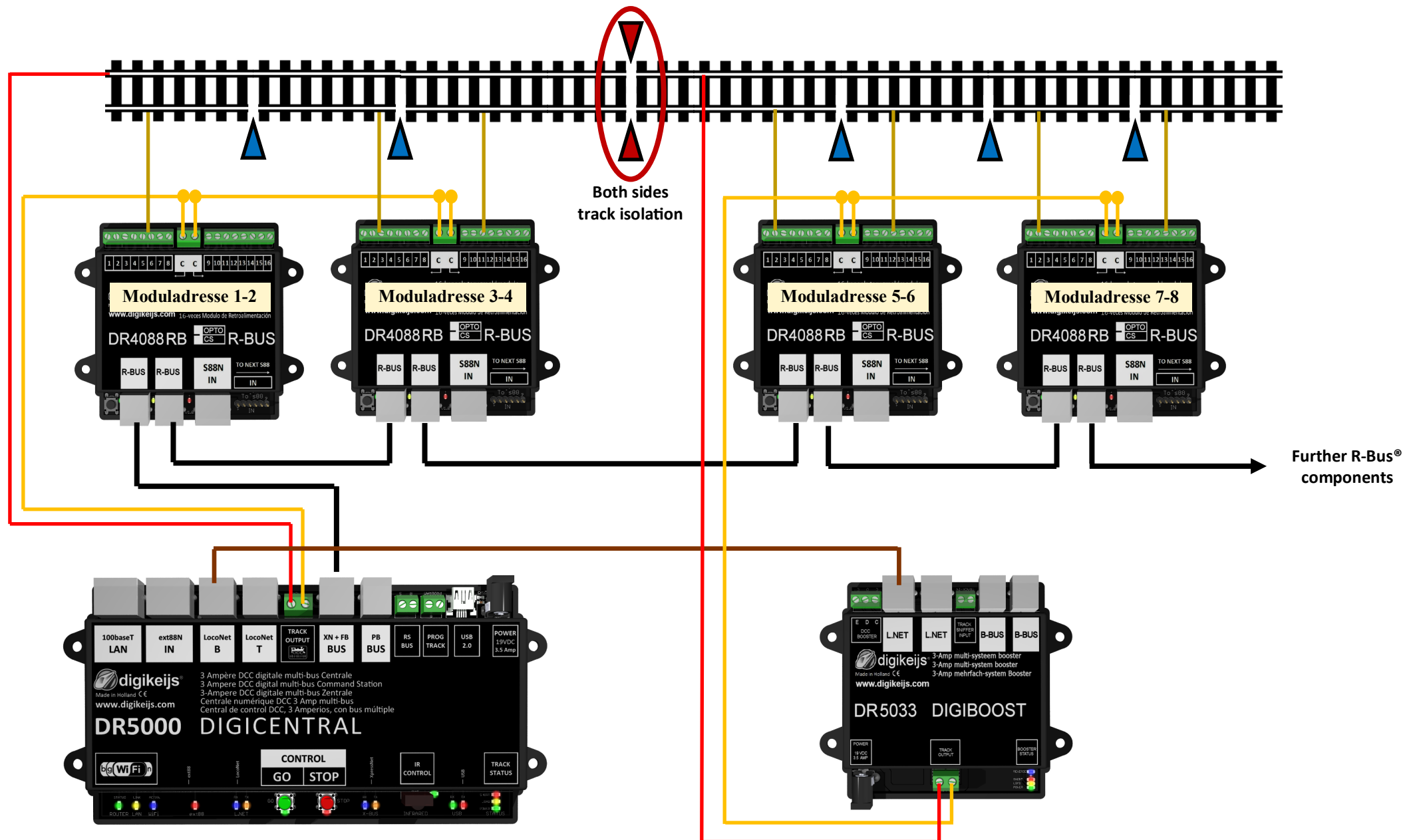
## 4.0 Connection examples

In this chapter you will find some connection examples for the DR4088RB-xx. Please note that we are not able to show all possibilities that exist.

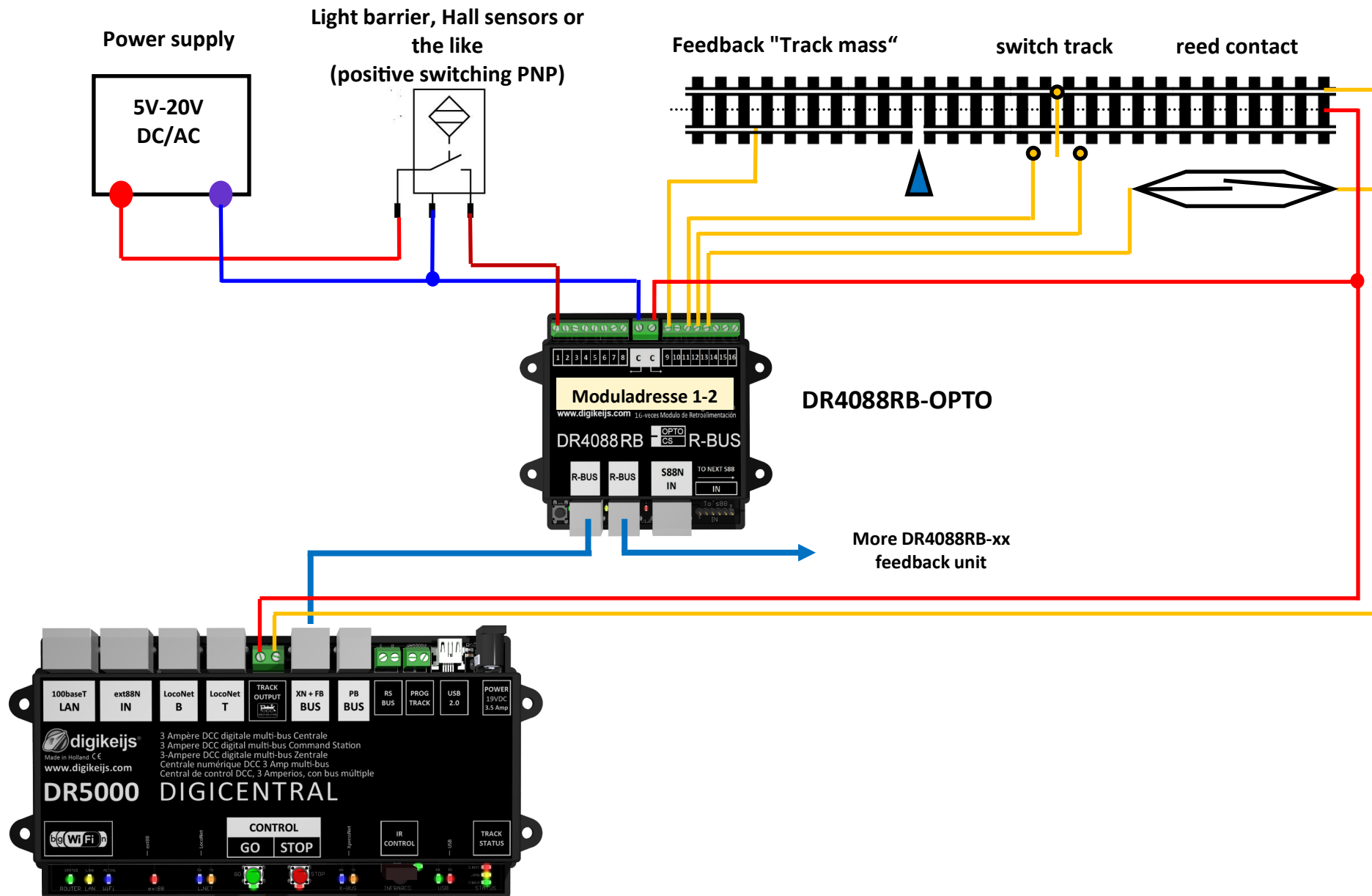
**DR5000 in conjunction with R-Bus® feedback modules (DR4088RB-CS)**

In this example the feedback modules DR4088RB-CS are used. These feedback modules are connected to the DR5000 central unit via R-Bus®. You can connect a maximum of 10 modules with 16 inputs each to the R-Bus® of the DR5000. A maximum of 160 feedback modules can thus be connected.

## 4.2 Feedback modules DR4088RB-CS and DR5033 Booster 2-wire track



## 4.2 Feedback modules DR4088RB-OPTO; Hall sensors, 3-wire track



## 4.3 Feedback modules DR4088RB-OPTO; switch track, 2-wire track

