DR 4088xx
Instruction manual

(2021-08-11)

1 General Information

1 Index

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

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2.0 Product overview

2.1 General product information

The DR4088xx is a feedback module that can be connected to the central unit via the S88(N)®.
The DR4088-xx has 16 feedback inputs.
The DR4088xx is available as CS version (current sensor 2-wire track), as OPTO version (connection of reed contacts, 3-wire track signal to track ground) and as GND version (3-wire track).

> **Important**! DR4088GND 3-wire operation:
> Due to the H-bridge (track output) in the DR50xx, feedback devices in the DR4088GND version must not be used against track ground, as is usually the case with 3-wire tracks. This inevitably leads to the destruction of the DR50xx.
> If a 3-wire driver still wants to drive with the DR50xx and report back against track ground, the DR4088OPTO
> can be used.

2.2 Technical specifications

The connection terminals of the 16 feedback units are designed for a cross-section of 0.5mm², the two terminals for "C" are designed for a cross-section of 0.75mm².

	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.
DR4088CS	2 x 8	2 conductors	2 mA	2 A	5 A	6 A an „**C**"
DR4088OPTO	2 x 8	3 conductors when using the DR50xx	-	-		-
DR4088GND	2 x 8	3 conductors				

2.3 Hardware Overview

1 Connection feedback 1 to 8

2 Common connection "C" for the right or left detector group.

3 Connection feedback 9 bis16

4 S88® OUT connection
(continue to the next DR4088xx)

5 S88® OUT connection
(to central or previous DR4088xx)

6 red LED
(flashing during load or activity at S88N connection)

7 S88N® IN connector (standard RJ45 patch cable).
(continue to next DR4088xx)

8 S88® IN connection
(continue to the next DR4088xx)
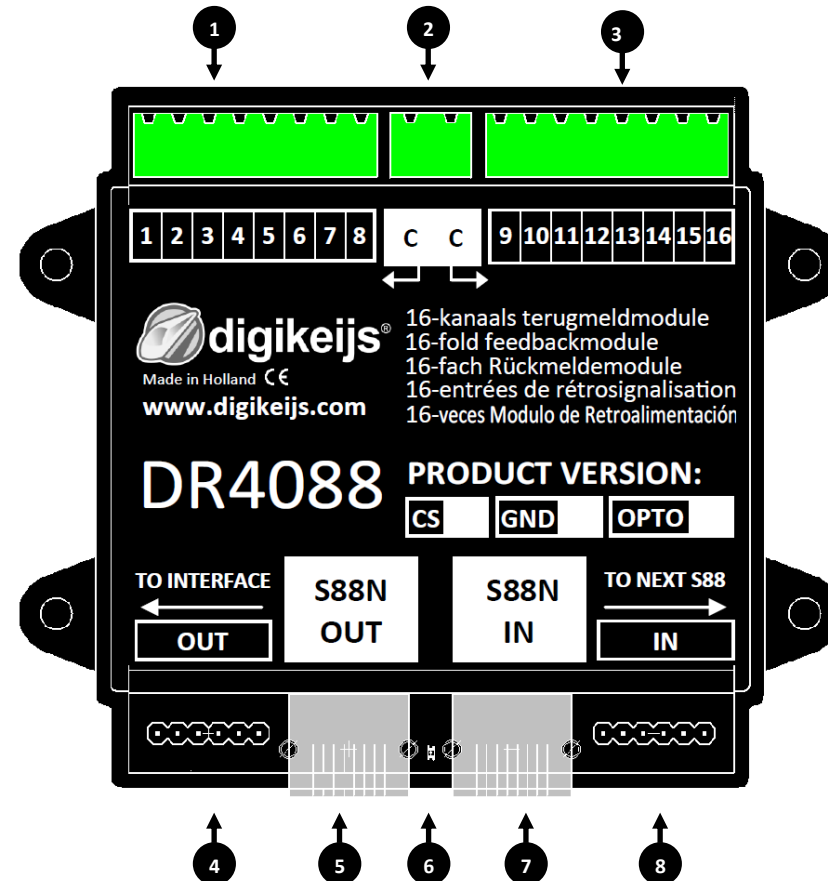
3.0 Programming

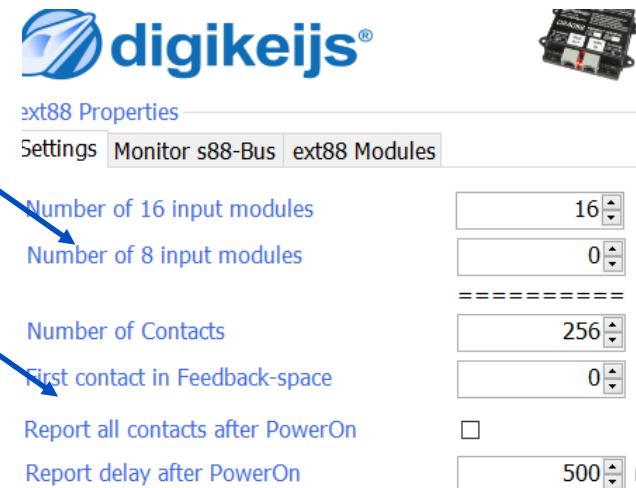First, something fundamental about the S88(N) Bus®:

- The S88(N)® bus is a universal bus system.
- The S88(N)® bus supports a maximum of 256 feedback addresses.
- The addresses are always assigned automatically and continuously. No universal and unique addressing is possible because the S88(N)® bus is not designed for individual address assignment!
- The S88(N)® can only be set up as a bus (line) network. This always means from 1. feedback to 2. feedback, etc.

3.1 Programming DR4088xx (Assign start address in DR50xx)

The S88(N)® bus system does not provide programming in the actual sense. It only has to be defined in the central with which address the S88(N)® bus starts and how many modules are located on the bus.

Programming the start address in the DR50xx

1. Start the DR50xx tool.
2. Call up the settings for the S88(N)® bus with the button in the ext88N tool.
3. The start address and the number of modules must now be entered in this input mask.

3.2 Reset DR4088xx

Important! The DR4088xx The DR4088xx has no function for resetting to factory settings!
Since no settings or functions are stored in the feedback module, this is not necessary!

4.0 Connection examples

In this chapter you will find some connection examples for the DR4088xx. Please note that we are not able to show all possibilities.

Important! DR4088GND 3-wire operation:
Due to the H-bridge (track output) in the DR50xx, feedback devices in the DR4088GND version must not be used against track ground, as is usually the case with 3-wire tracks. This inevitably leads to the destruction of the DR50xx.
If a 3-wire driver still wants to drive with the DR50xx and report back against track ground, the DR4088OPTO
can be used.

4.1 Feedback modules DR4088CS; 2-wire track
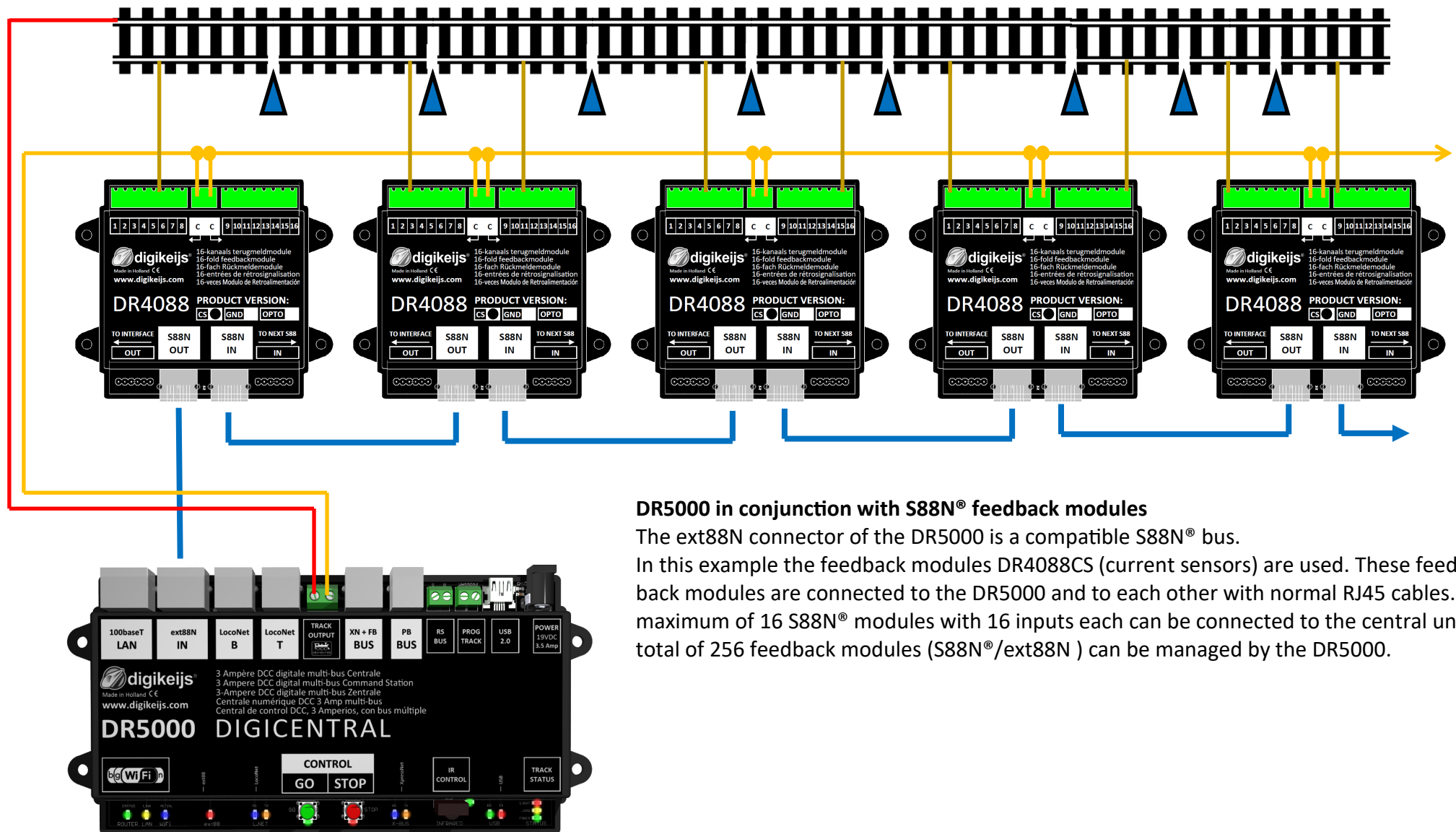
DR5000 in conjunction with S88N® feedback modules

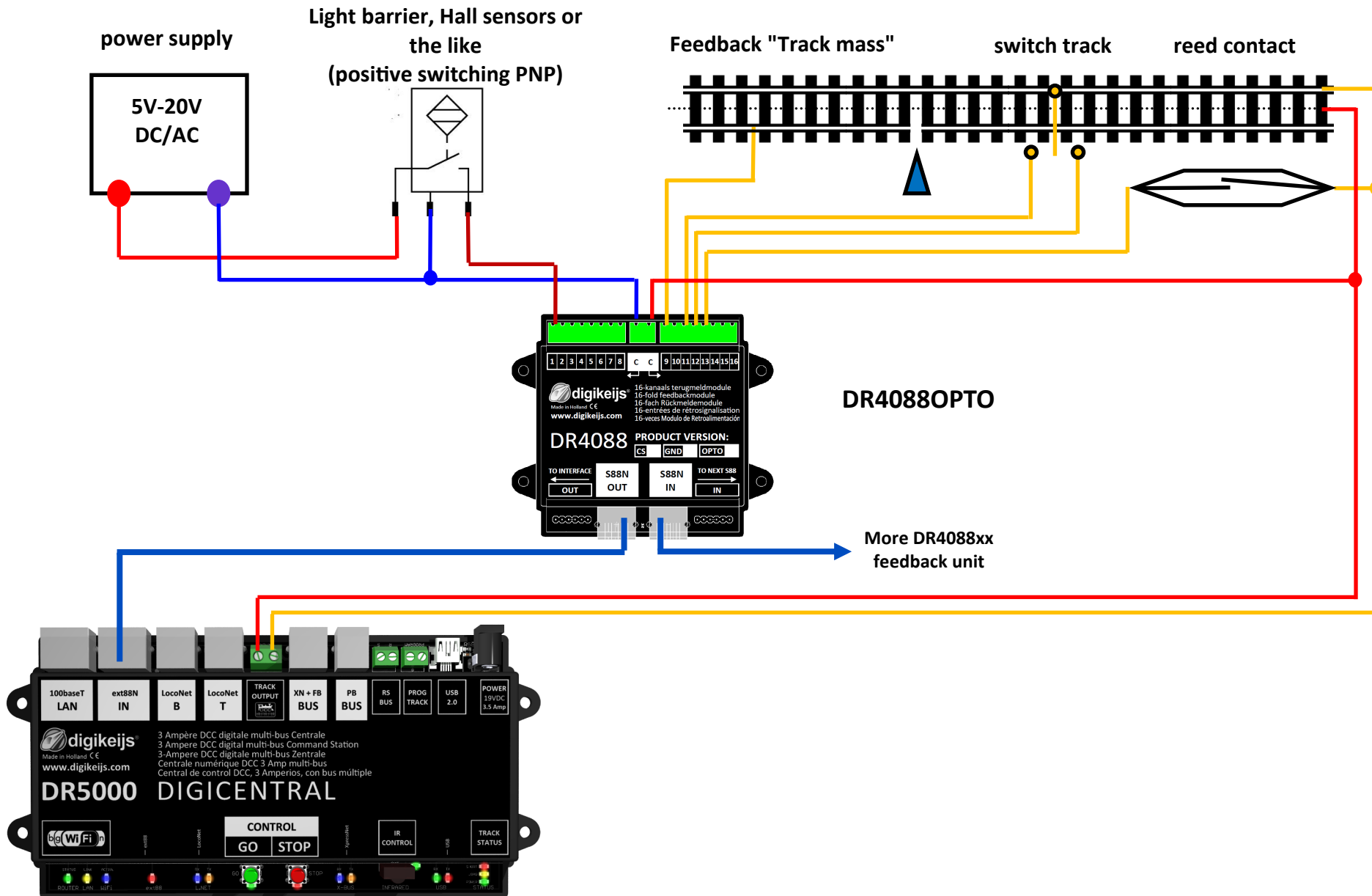The ext88N connector of the DR5000 is a compatible S88N® bus.

In this example the feedback modules DR4088CS (current sensors) are used. These feedback modules are connected to the DR5000 and to each other with normal RJ45 cables. A maximum of 16 S88N® modules with 16 inputs each can be connected to the central unit. A total of 256 feedback modules (S88N®/ext88N) can be managed by the DR5000.
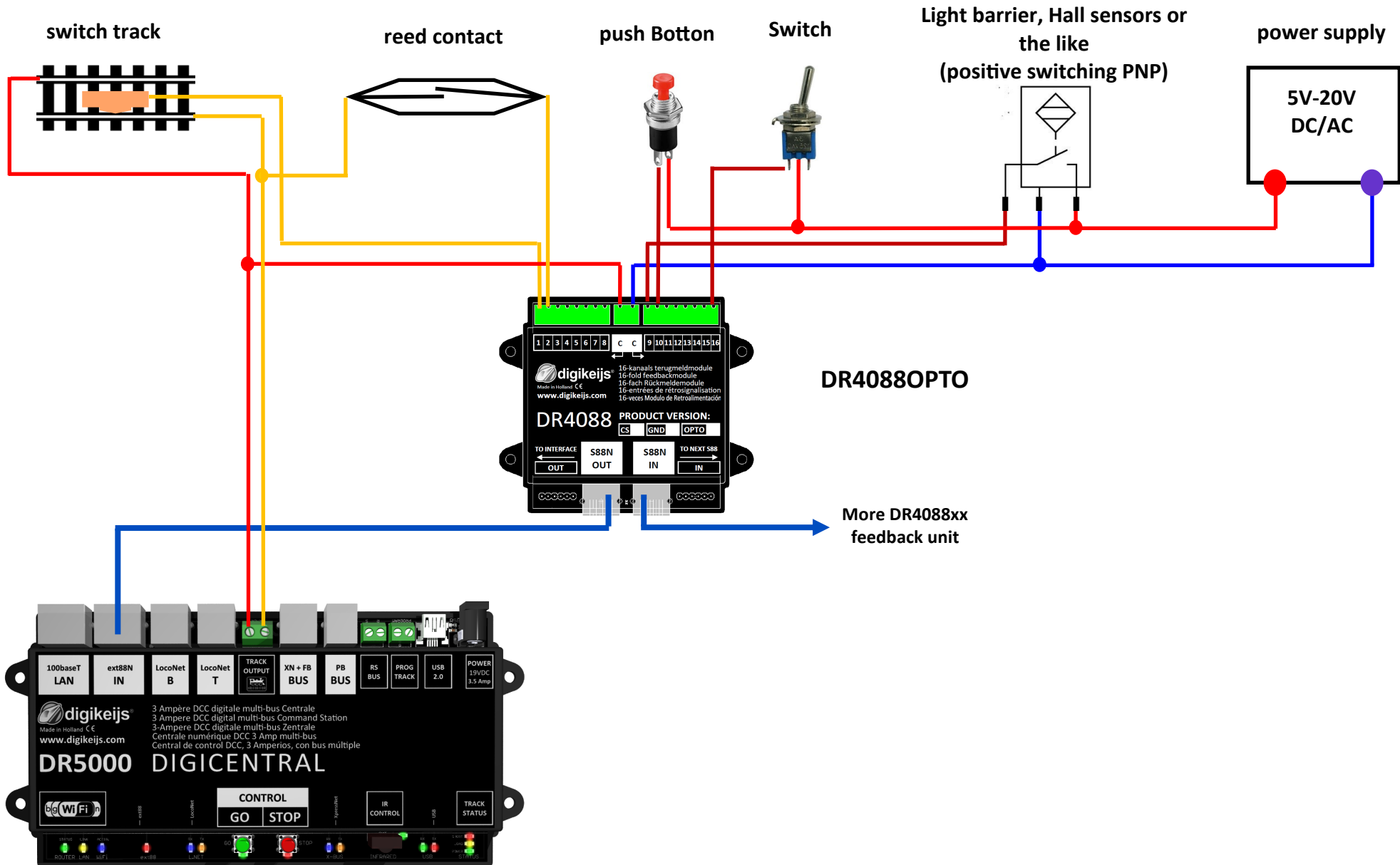
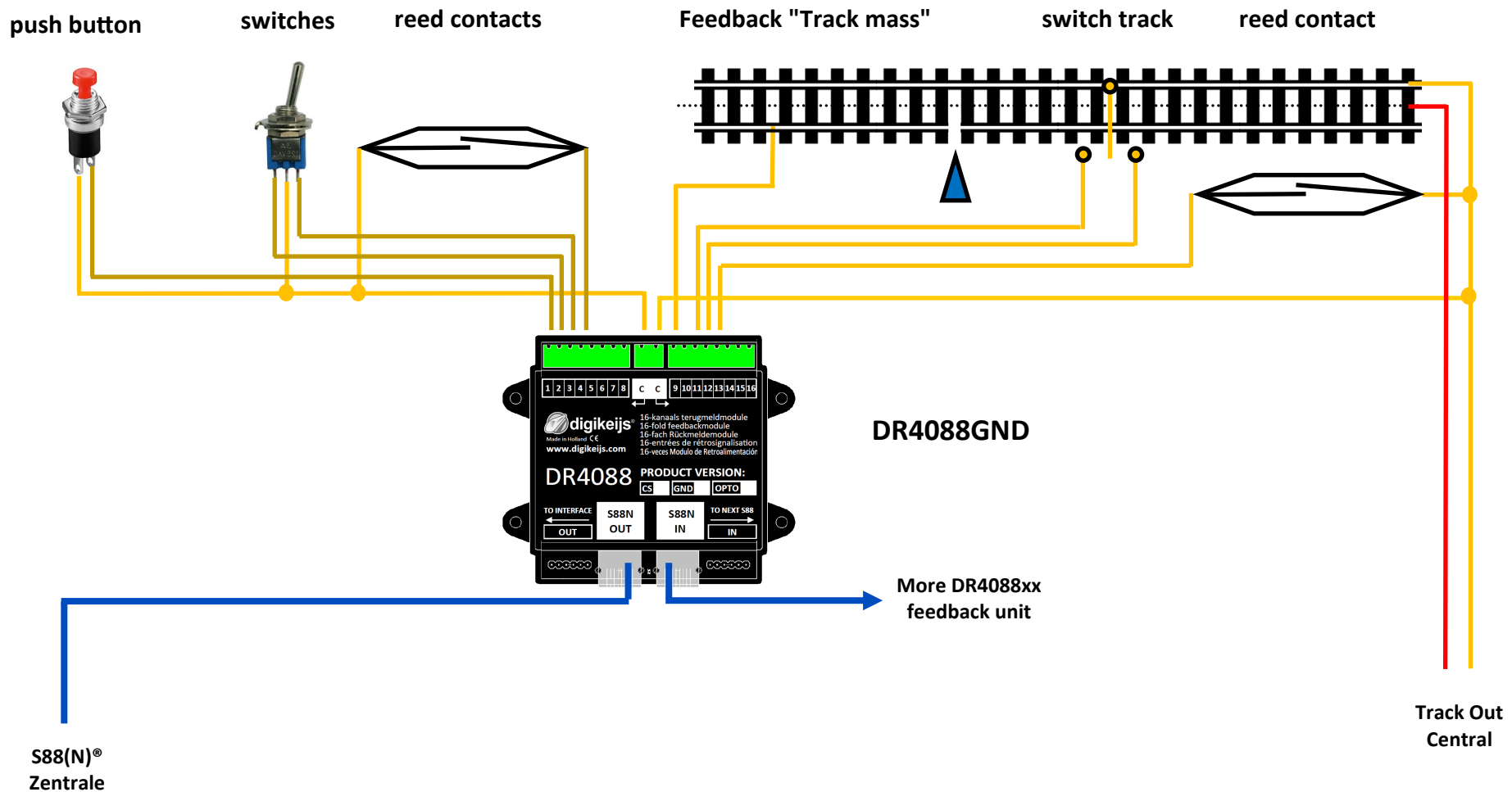## 4.2 Feedback modules DR4088CS and DR5033 Booster; 2-wire track

**Both sides
track isolation**
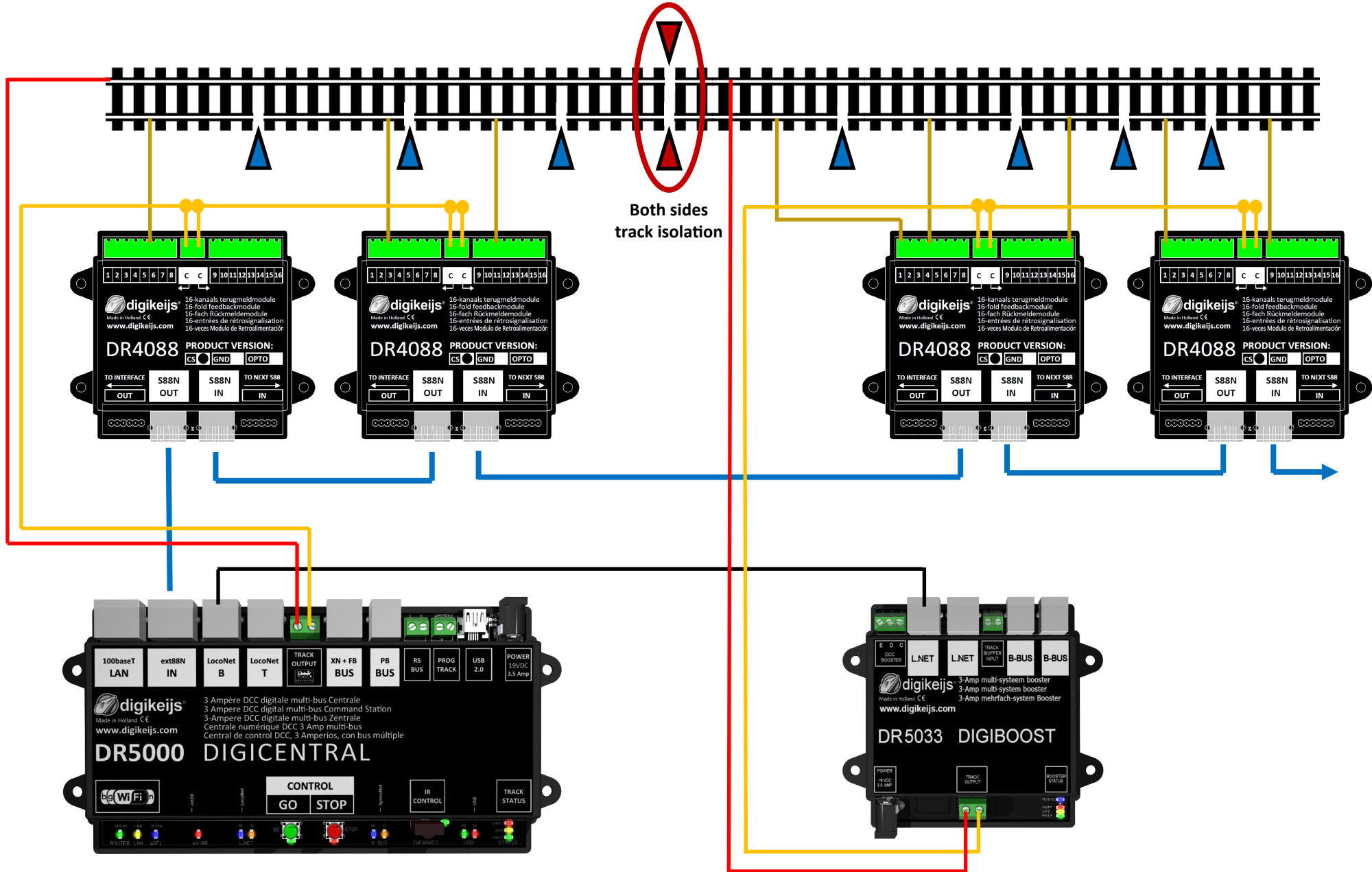
4.3 Feedback modules DR4088OPTO; Hall sensors, 3-wire track

4.4 Feedback modules DR4088OPTO; switch track, 2-wire track

switch track | reed contact | push Botton | Switch | Light barrier, Hall sensors or the like (positive switching PNP) | power supply

5V-20V DC/AC

DR4088OPTO

More DR4088xx feedback unit

4.5 Feedback modules DR4088GND;switches, buttons, reed contacts

push button   switches   reed contacts   Feedback "Track mass"   switch track   reed contact

DR4088GND

More DR4088xx
feedback unit

**S88(N)®
Zentrale**

**Track Out
Central**

Important! DR4088GND 3-wire operation:
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