



Feedback Railcom module RB 5350



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Application

The RB5350 module is used to receive information about the occupancy on the sections of the tracks, along with information about the address of the locomotive located on exact section by reading the data transmitted using Railcom® protocol. Received information transmitted by Standard LocoNet® bus commands.

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Basic functions:

- Ability to monitor up to 16 independent track sections
- 2 opto-isolated, independent input groups with the option to connect two boosters
- 8 additional 5V logic inputs with a separate feedback address
- Maximum load per input: 5A
- DCC bus status indicator and last activated input indicator
- RailCom® support: address reading, PoM (Programming on Main)
- Address programming button
- Firmware update capability via the Railbox: Railroad Control application

Technical parameters:

- Current consumption from the LocoNet® bus: 25mA
- Maximum load per track input: 5A
- Maximum load per input group: 7A
- Input sensitivity: 2.2mA
- Maximum load on the external 5V bus: 50mA
- Module dimensions: 88 × 104 × 22 mm.

Status LED color chart:

Upper LED:

- **Green:** DCC track bus connected and active.
- **Blue:** The module is receiving data via RailCom.
- **Yellow:** DCC track bus disconnected or inactive.
- **White:** Programming mode.

Lower LED:

- **Red:** The last switched input is occupied.
- **Off:** The last switched input is clear.

Connection

The module should be connected to track sections in the same way as a standard feedback module. Specifically, each input should be connected to an isolated section of one rail, and the rail of the same polarity from the DCC command station or booster should be connected to the corresponding "Cx" input (C1 or C2). The other rail from the DCC command station or booster should be connected to the "TR" input.

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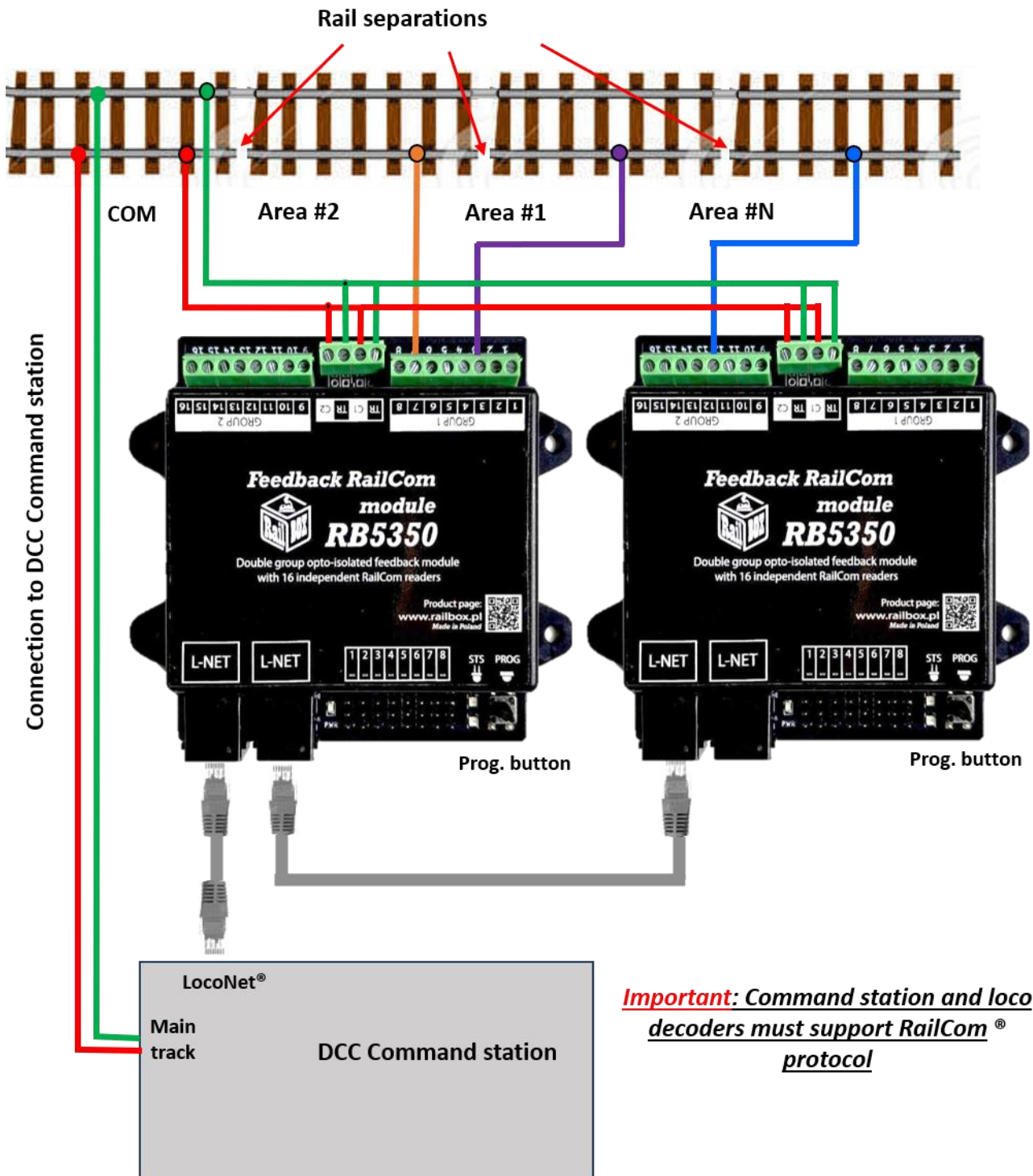


Android



iOS

RB5350 Feedback module connection to the DCC Command station and the tracks



Connecting feedback sensors to the RB5350 module

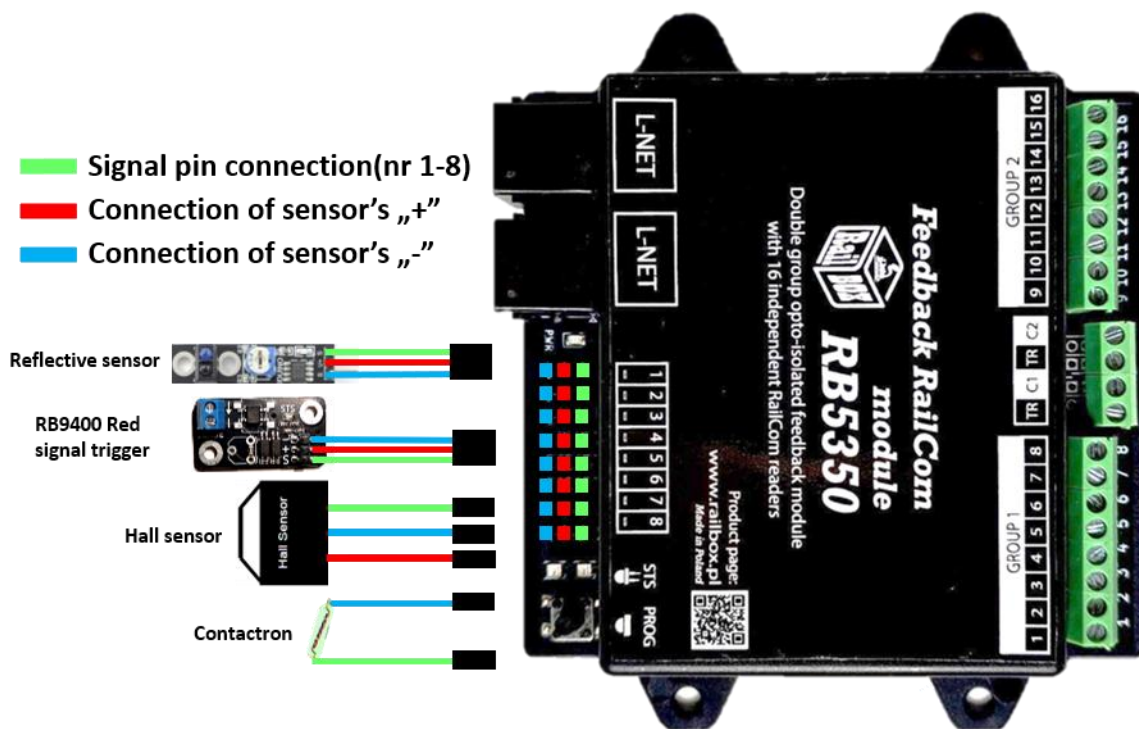
Any type of sensor equipped with a logic output or an open-collector output can be connected to the RB5350 module, for example: a reed switch, Hall-effect sensor, current sensor, infrared (IR) sensor, etc.

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Module programming

Module address programming

To program the module's base address (for track section inputs 1–16), follow these steps:

1. Enter the module programming mode by pressing and holding the button for 2 seconds. The upper LED should light up WHITE.
2. Switch the turnout with the address (the decoder expects turnout commands according to the RCN-213 standard; first address = 4) that is to be assigned as the module address. After this, the status LED should change color, confirming that the address has been accepted and programming has been completed.

Module address programming via changing CV in PoM mode

Important: In this mode, it is also possible to change the base address of the additional 5V inputs.

1. Ensure that the DCC track bus is active and connected (the status LED should be lit GREEN).
2. Enter the module programming mode by pressing and holding the button for 2 seconds. The upper LED should light up WHITE.
3. From any device connected to the command station, use **PoM mode** for a locomotive with address **9999** and modify:
 - CV112 to set the address of the track section inputs, or
 - CV113 to set the address of the 5V inputs.
4. Exit programming mode by pressing and holding the button for 2 seconds. The upper LED should light up GREEN.

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CV configuration table

CV	Value	Default value	Description
1	1..20	1	Decoder address (current-input address): Decoder address (short)
7	0..255		Decoder software version
8	0..255	172	Manufacturer code / Decoder reset: Manufacturer code / Writing any value resets the decoder to factory settings
110	0..100	53	Product code 1: Product code 1, read-only. Value X of the product code in RBXXYY format
111	0..100	50	Product code 2: Value Y of the product code in RBXXYY format
113	0..20	0	Logical input module address (pin): Address of the module for logical inputs (pin)
114	bit		Inversion of logical inputs (pin)
	0	0	pin 1: 0-off, 1-on
115	0..255	249	Status-request address (low byte): When this accessory address is switched, the module resends all input statuses. Default address is 1017
116	0..7	3	Status-request address (high byte): Same as CV115
120	0..255	50	Output 1 switch-off delay time: Switch-off delay time of output 1, value × 10 ms
121	0..255	50	Output 2 switch-off delay time: Same as CV120
122	0..255	50	Output 3 switch-off delay time:
123	0..255	50	Output 4 switch-off delay time:
124	0..255	50	Output 5 switch-off delay time:
125	0..255	50	Output 6 switch-off delay time:
126	0..255	50	Output 7 switch-off delay time:
127	0..255	50	Output 8 switch-off delay time:
128	0..255	50	Output 9 switch-off delay time:
129	0..255	50	Output 10 switch-off delay time:
130	0..255	50	Output 11 switch-off delay time:
131	0..255	50	Output 12 switch-off delay time:
132	0..255	50	Output 13 switch-off delay time:
133	0..255	50	Output 14 switch-off delay time:
134	0..255	50	Output 15 switch-off delay time:
135	0..255	50	Output 16 switch-off delay time:

