

ACCESSORIES 2022

www.fleischmann.de

The background of the entire page is a vibrant red. Scattered across this background are several white line-art illustrations of model train accessories. In the upper left, there is a rectangular building with multiple windows and a flat roof. Below it, towards the bottom left, is a section of track with cross-ties. In the center, there is a curved section of track. To the right of the center, there is a small circular component, possibly a wheel or a connector. Further to the right, there is a larger, more complex structure that looks like a roundhouse or a large station building with a semi-circular roof and several windows. Thin, white, curved lines sweep across the background, suggesting motion or the layout of a track.

Fleischmann



Dear FLEISCHMANN fans,

In addition to perfect, finely detailed models with optimised operating characteristics, a model railway system needs one thing above all else: Accessories!

For this reason, our comprehensive catalogue contains the entire FLEISCHMANN Accessories product range. This includes, amongst other things, our popular Z21 system, an intuitive digital control system that has already convinced tens of thousands of users worldwide. Convince yourself of the diverse expansion possibilities and become a Z21 fan too!

This catalogue also provides you with the perfect overview over our comprehensive N track systems. Whether with or without a track bed: FLEISCHMANN has almost every track you might require in its range. The perfectly designed geometry leaves nothing to be desired.

The catalogue provides you with the perfect overview. However, should you still have questions, our Customer Service Team will be happy to advise you directly.

We wish you much enjoyment during the creation of your great little world!

Your FLEISCHMANN-Team



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DIGITAL SYSTEM FOR ALL GAUCHES



All advantages at one glance

- ▶ Wireless controlling via tablet, smartphone, and the Z21 WLANMAUS
- ▶ High-capacity administration for a large rolling stock (up to 9,999 locomotive and 2,048 turnout addresses)
- ▶ Open multi-protocol centre supporting DCC and Motorola™ formats
- ▶ Upgrade for already existing digital layouts through downwards-compatibility, i.e. Z21 multiMAUS, Lokmaus 2, multiMAUS^{pro} etc.
- ▶ Read out values and get feedback of locomotives and switches via RailCom*
- ▶ Save and reload locomotive data with the import and export function
- ▶ Possibility to update software & sound of ZIMO sound decoders

Z21 System

z21 start

Available in start set



without z21 WiFi package

 Combination with
z21 WiFi Package

10814/10818


z21

Available in start set



incl. WiFi router

Z21

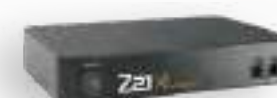
10820



incl. WiFi router

Z21 XL Series

10870



incl. WiFi Router

Plug & play system	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2 X-Bus ports on the front	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1 X-Bus ports on the back	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DCC & MM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
POM programming, POM reading, CV programming and CV reading	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B-Bus and R-Bus	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Configurable with the Maintenance Tool	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Regulation with comfortable Z21 app and diverse hand held controller	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Photorealistic driver's cab on Android tablet and iPad	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
LocoNet and sniffer Bus port	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CAN Bus - allows comfortable configuration of new Z21 components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Adjustment options for track voltage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Separate programming track output with Zimo decoder update process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Gauges	N – H0	N – H0	N – H0	N – H0	0 – 2

Z21 digital control centre

The Z21 digital control centre connects your model railway system, your digital locomotives and wagons via WiFi to your tablet, smartphone or the Z21 WLANMAUS. No additional networking knowledge is needed for this. You can extend your Z21 digital control centre easily due to the large number of interfaces. This also makes it the ideal basis for PC-based automation.

Content:

- 1 Z21 digital control centre
- 1 switching power supply (10851
- 1 pre-configured WiFi router for Plug & Play operations incl. switching power supply
- 3 back plug terminal RM3,5 2p



Art. Nr.: 10820

Art. Nr.: 10822

US version

Z21 multiMAUS

Art. Nr.: 10835

The Z21 multiMAUS is a digital control centre that enables you to control your trains, use digital functions, switch turnouts and signals and much more. The clear design in combination with easy operation handling makes the Z21 multiMAUS a benchmark in the field of digital model train control systems and not just for digital beginners. Digital professionals also can profit from a large variety of advanced functions so that they can drive their locomotives absolutely true to the originals.



Possibilities

- ▶ 64 locomotives with 5 digits names
- ▶ Up to 29 functions can be activated per locomotive
- ▶ Up to 1,024 magnetic items switchable
- ▶ Write and read configuration variables (DCC CVs)

Z21 WLANMAUS

Art. Nr.: 10813

Control unit with many operation functions. Several Z21 WLANMAUS can be simultaneously operated – possible with all Z21 systems (z21 start combined with WiFi package 10814, 10818). The Z21 WLANMAUS gives you wireless freedom around your layout.

The Z21 WLANMAUS also offers:

- ▶ Wireless freedom through WiFi transmission
- ▶ 29 functions per locomotive
- ▶ 100 locomotive addresses can be stored in the database and can be assigned with names (up to 10 digits)
- ▶ Operated with commercially available standard batteries (3 x AAA, not included in the delivery)
- ▶ Up to 2,048 magnetic items switchable

Z21
www.z21.eu

z21 start base digital set

Art. Nr.: 10833

Content:

- 1 z21 start digital control centre
- 1 Z21 multiMAUS
- 1 plug-in power supply



The **z21 start** offers everything needed to get started immediately:

- ▶ Digital controlling of locomotives and simple reading and programming with the Z21 multiMAUS.
- ▶ Possible connection of several Z21 multiMAUS devices (for parallel controlling of several locomotives).
- ▶ Prepared for WiFi

Z21 professional digital set

Art. Nr.: 10834

Content:

- 1 Z21 digital control centre
- 1 WiFi router
- 1 Z21 WLANMAUS
- 1 plug-in power supply



z21 WiFi package

Art. Nr.: 10814

The z21 WiFi package contains a preconfigured router and the activation code for the z21 start. This way the z21 start can accept commands for locomotives and turnouts via the WiFi interface and process them. System requirement is a Windows PC or notebook as well as an existing Internet connection.

FOR **z21 start**



z21 unlock code

Art. Nr.: 10818

The z21 activation code is required if you already have your own router. Please note that extended network knowledge is necessary for this purpose.

FOR **z21 start**



Z21 XL Series digital control centre

The new Z21 XL series has been especially adapted for the requirements of large gauges (0, 1, 2, G), and unites the advantages and the convenience of the Z21 system with high output voltages.

Art. Nr.: 10870

- ▶ More output voltage with 6 A at 20 V
- ▶ Control via WiFi provides high range and transmission security
- ▶ Convenient Z21 App and Z21 WLANMAUS for the control of your entire system

Content:

- 1 Z21 XL Series digital control centre
- 1 Plug-in power supply and cable 6 A, 20 V
- 1 WiFi router & plug-in power supply



Z21 XL BOOSTER

Art. Nr.: 10869

- ▶ Output voltage 6 A at 20 V
- ▶ Track format DCC and Motorola**
- ▶ B-BUS
- ▶ CAN-BUS
- ▶ CDE interface
- ▶ RailCom* receiver and transmission to control centre (CAN)
- ▶ Forwarding of short-circuits to control centre (adjustable)
- ▶ Firmware update (CAN)
- ▶ RailCom* cut-out adjustable

Art. Nr.: 10857

Suitable power supply 120 W (see page 11)



Art. Nr.: 10836

Z21 switch DECODER

The Z21 switch DECODER is an universally applicable DCC switching decoder with a power output of 2 Amperes for up to 8 turnouts or up to 16 elements such as LEDs and bulbs.

Adjustable outputs

Each of the 8 output pairs can be set to different modes independently of the other. These are already pre-configured and can simply be selected. Each output pair can also be individually dimmed so that lighting can be adapted precisely to requirements.

It perfectly can be combined with:

- ▶ Twin coil motors
- ▶ Simple light signals
- ▶ All kind of illumination
- ▶ Control of relays

Highlights:

- ▶ 8 output pairs can be set independently
- ▶ Optional power supply via extra applied switching power supply
- ▶ Programmable with RailCom* on the main track (POM)
- ▶ Short-circuit protection against overload
- ▶ Updateable



Art. Nr.: 10837

Z21 signal DECODER

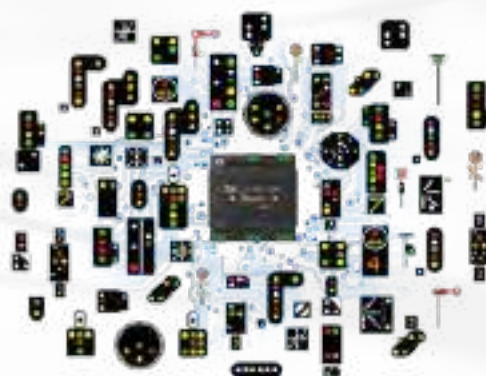
The Z21 signal DECODER is a universally applicable DCC decoder for complex light signals. Operation is even easier with the Z21 app as the signal types are also stored in the app and can be read out automatically from the decoder. This can be conveniently done via Z21 pro LINK.

- ▶ Updateable
- ▶ Extensively configurable
- ▶ RailCom* compatible

Over 30 signal types are included, such as:

- ▶ **Germany:** H/V signals, Ks signals, HI signals, block signals, ...
- ▶ **Austria:** Main signals class 1980 and 1954, pre-signals, protections signals, ...
- ▶ **Switzerland:** System L, system N, Signals for shunting service, ...

Additional signal types can of course be added by using the update function via the Z21 pro LINK.



Art. Nr.: 10838

Z21 pro LINK

The configuring and networking of your Z21 hardware is getting even simpler and more convenient. In addition the Z21 pro LINK also stands out thanks to easy operation and the ability to keep up to date with updates.

Configuration and networking of your Z21 components at a new level:

- ▶ No complex CV tables
- ▶ With integrated web server
- ▶ Installed WiFi

The 3 essential functions:

1. Configuring

The Z21 pro LINK always automatically detects which device it is currently connected to. You can conveniently configure this device via the installed display and buttons without the need of any other components. Or you carry out the necessary adjustments via Z21 pro LINK website on your PC or smartphone.

2. Updating

Always keep your Z21 system up to date and benefit permanently from all new functions. You can perform this easily with the Z21 Updater App for iOS and Android or via PC with the Z21 Maintenance Tool.

3. Controlling

The Z21 pro LINK also networks all of your devices with zLink interface. It enables to perform communication with control commands and status queries directly via WiFi. Therewith the „Internet of Moba Things“ has become reality.

Here the link to the video:
Z21 pro LINK in action





Art. Nr.: 10805

Z21 light BOOSTER

- ▶ Power 3 A (track output)
- ▶ RailCom* cutout (allows use of RailCom*-track occupied detector)
- ▶ Terminal loop feature with short-circuit detector
- ▶ Connection via B-Bus



Art. Nr.: 10806

Z21 single BOOSTER

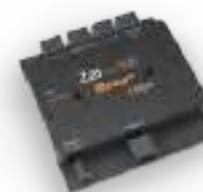
- ▶ Power 3 A (track output)
- ▶ Adjustable track voltage (12 V–24 V)
- ▶ RailCom* global detector
- ▶ Terminal loop feature with short-circuit detector
- ▶ Brake generator feature configurable
- ▶ Connections via CAN-Bus, B-Bus, CDE-Bus
- ▶ Configuration and update simply by PC via CAN



Art. Nr.: 10807

Z21 dual BOOSTER

- ▶ Power 2x 3 A (track outputs)
- ▶ Voltage can be set for both track outputs separately via app or PC via Z21 (12–24 V)
- ▶ RailCom* global detector
- ▶ Terminal loop feature can be separately configured by means of short-circuit detector
- ▶ Brake generator feature can be separately configured for both
- ▶ Connections via CAN-Bus, B-Bus, CDE-Bus
- ▶ Configuration and update simply by PC via CAN



Art. Nr.: 10804

Z21 CAN HUB

- ▶ Additional 2 A power supply for CAN-Bus
- ▶ 3 CAN outputs
- ▶ 1 Z-CAN output with booster signal amplification
- ▶ Ideal for large track layouts with many CAN users
- ▶ Including a connecting cable for CAN-Bus

Art. Nr.: 10851

Suitable power supply 54 W (see page 11)



Art. Nr.: 10808

Z21 DETECTOR

- ▶ Track-occupied detector for 8 sections
- ▶ Occupied message by means of power monitoring of track sections
- ▶ RailCom* detector for loco identification
- ▶ Connection via CAN-Bus and R-Bus
- ▶ Configuration via button or CAN

Art. Nr.: 10851

Suitable power supply 54 W (see page 11)



Art. Nr.: 10819

Z21 DETECTOR x16

- ▶ Track occupancy sensor for 16 track sections
- ▶ Occupied signal is triggered by the power monitoring of the track sections
- ▶ Connection via R-Bus
- ▶ Configuration via buttons or POM CV programming

Art. Nr.: 10857

Suitable power supply 120 W (see page 11)

Art. Nr.: 10850

Suitable power supply 36 W (see page 11)



Art. Nr.: 10797

Z21 multi LOOP

- ▶ Ideal for terminal loops, triangular junctions and turntables
- ▶ Compatible with RailCom*
- ▶ Operated by short-circuit detector, switching contacts or sensor tracks
- ▶ Compatible with DCC, MM and analogue mode



Art. Nr.: 10789

Z21 CDE booster adapter

The booster adapter is used to facilitate connection of up to 15 Boosters with CDE ports to the Boosterbus. To supply the adapter with voltage, there is an X-BUS connection. Status LEDs display the 12 V supply as well as an active CDE output stage, and the adapter also has overcurrent and short circuit shut-down protection on the CDE output.

The booster adapter can be used on the following central units or amplifiers: Digital amplifier (10764), multiZENTRALE^{pro} (10832) and z21, z21 start as well as Z21 (10820, 10822).



Art. Nr.: 10850

Switching power supply 36 watts

Ideal for Z21 CAN HUB and z21 start.

Output voltage: 18 V =

► Protection against:

Overload, short circuit, over-tension



Art. Nr.: 10859

USB switching power supply 5 watts

Ideal for Z21 pro LINK. With USB-A to Micro-USB-B cable.



Art. Nr.: 10851

Switching power supply 54 watts

Ideal for Z21, z21, Z21 single BOOSTER, Z21 light BOOSTER.

► Protection against:

Overload, short circuit, over-tension

Technical data:

Input voltage: 230 V ~

Output voltage: 20 V =

Output current: 3 A



Art. Nr.: 10857

Switching power supply 120 watts

Ideal for Z21 dual BOOSTER und Z21 XL BOOSTER.

► Protection against:

Overload, short circuit, over-tension, overtemperature

Technical data:

Input voltage: 100–240 V ~

Output voltage: 20 V =

Output current: 6 A



Art. Nr.: 96341

Power supply 40 watts Meanwell (USA & AUSTRALIA)

Ideal for z21, z21 start and Z21 CAN HUB.

► Protection against:

Overload, short circuit, back feed



Art. Nr.: 96342

Power supply 90 watts (USA & AUSTRALIA)

Ideal for Z21, smart RAIL, Digital amplifier, Z21 switch DECODER, Digital booster, z21 start, Z21 single BOOSTER, Z21 light BOOSTER and the multiZENTRALE^{pro}.

► Protection against:

Overload, short circuit, over-tension, overtemperature





Connection cables for digital components



Art. Nr.: 10754

Highly flexible 6-pole spiral cable

Connection between Z21 multiMAUS (10835, 10810) and 10820, 10822, 10815, 10764. Suitable for the FLEISCHMANN multiMAUS from digital start sets. Length approx. 2 m



Art. Nr.: 10756

6-pin data bus replacement cable

Replacement cable for Z21 multiMAUS (10810), Lokmaus (10760, 10792), turnout keyboard (10770) or RouteControl (10772). It cannot be used to extend connector cables for Lokmaus 1 (Item no. 10750). Length approx. 2 m



Art. Nr.: 10753

CAN BUS Cable

For connecting Z21 CAN devices. Length approx. 2 m



Art. Nr.: 136100

Z21 Loconet Slave cable

A special cable that allows to use the Z21 as Loconet Slave on another central control unit.



Art. Nr.: 10757

Booster connection cable

Spare cable for connecting boosters (10765, 10789, 10805, 10806, 10807) with:

- ▶ Digital amplifier (10764)
- ▶ Digital central power unit (10820, 10822, z21)
- ▶ Brake generator (10779)
- ▶ Connecting the boosters mentioned above among each other



Art. Nr.: 10758

4-pin data bus distributor module

To connect further input units (for example Lokmaus or Z21 multiMAUS). This distributor module can also be used as an extension of existing lines to units on the slave output.
Note: The cable of the Master Lokmaus should not be extended in order to avoid impairing the quality of the data transmission.

Z21

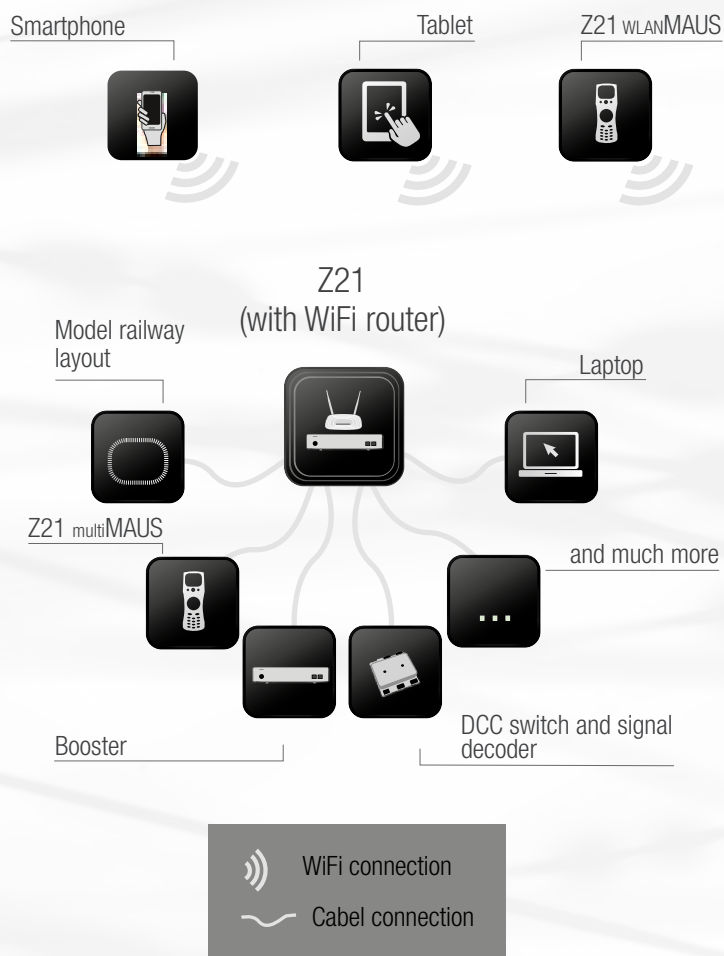
www.z21.eu

More information about Z21 model railway control, Z21 app, updater app, maintenance tool such as schematic signal box etc. you can find on our website, in the Z21 brochure and from your specialist retailer.



Z21 operating mode

The Z21 digital control centre connects your railway system and your digital locomotives with your tablet and smartphone via WiFi.



The Z21 system is compatible with many well-established PC-based model railway controllers. Furthermore the system is perfectly suited to control your garden railway.

Z21 app

The Z21 app allows you to create a detailed library of locomotives. Here you can easily add all locomotive-specific data, as well as main control information. In addition the Z21 system also supports automatic synchronisation with multiple input devices.



**Download in the app Store for iOS
or in the Google Play Store for Android!**

The app is available as a free download and can also be tested without using a Z21 system.

Here the link to the video:

Z21 app tutorial - controlling



Photorealistic driver's cab

Converting or upgrading to digital model railways will reward you with many advantages.

To be able to drive the locomotives as the driver himself is just one of the features which will make your eyes light up. As the locomotive driver, be amazed by the photorealistic views of the driver's cabs, which are equipped with original switches, controls from the relevant locomotive model, and interactive functions. Every control-related button and lever can be selected and provides the relevant action for your locomotive model. The Z21 app covers 8 individual driver's cabs starting with the driver's cab of the ETA 150 up to the Re 4/4, which are just waiting to be controlled by you. Because digital locomotive driving also needs practice to achieve mastery.

Please note that the driver's cabs are only available on iOS and Android devices.

Driver's cab of the ETA 150/class 515



- ① Speed display
- ② Traction current and battery current display
- ③ Speed step switch to set up and speed up
- ④ Brake lever
- ⑤ Door controls for opening and closing
- ⑥ Operational function keys

Driver's cab of the Re 4/4



- ① Main switch
- ② Locomotive brake
- ③ Car brake
- ④ Direction switch
- ⑤ Whistle
- ⑥ Emergency stop
- ⑦ Train headlight
- ⑧ Fan
- ⑨ Pantograph
- ⑩ Brake line pressure

Here the link to the video:
Z21 app tutorial - driver's cab





The new generation of feedback decoders

Characteristics of the locomotive decoder:

Advanced reset and protection functions; all outputs are short-circuit proof. Overcurrent protection for motor and function outputs by switching off and automatic restart. DC and AC analogue operation, with optional unregulated or load-sensing motor control. Software update capability via Z21 (An update via the z21 from the starter sets is not possible). Low-noise motor control, suitable for all kinds of DC and bell-type armature motors. Full NMRA function mapping with enhancements; Dimming, flashing, high beam / low beam switchover via function key. Time limit of the coupler control for overload protection (ROCO-Digi-coupling). Support of braking distances; Locomotive addresses are programmable; Comfortable change of the operating parameters, so the loco does not have to be opened.

Characteristics of the sound decoder (in addition to the locomotive decoder):

Powerful sound amplifier. Acceleration and load dependency of sound reproduction. Loading of sound projects is possible.

Detailed technical information about the decoders can be found in the operating instructions as well as on:

www.zimo.at



Art. Nr.: 685404

6-pole decoder with plug (NEM 651)

Decoder specifications:

Dimensions: 14 x 9 x 2.5 mm,
Length of pigtail: ca. 80 mm,
0.8 A constant current, 1.5 A peak current (ca. 20 ms),
4 function exits,
current limit for the function exits:
total: 0.5 A,
2 logic level exits, SUSI, DCC, MM, RailCom* and much more.

Corresponds to: ZIMO MX622 with leads



Art. Nr.: 685504

6-pole decoder with plug (NEM 651)

Decoder specifications:

Dimensions: 14 x 9 x 2.5 mm,
Lead length approx. 35 mm.
0.8 A constant current, 1.5 A peak current (ca. 20 ms),
4 function exits,
current limit for the function exits:
total: 0.5 A,
2 logic level exits, SUSI, DCC, MM, RailCom* and much more.

Corresponds to: ZIMO MX622 with leads



Art. Nr.: 687403

6-pole decoder with plug (NEM 651)

Decoder specifications:

Dimensions: 20 x 11 x 3.5 mm,
Length of pigtail: 80 mm,
Motor: 1000 mA,
Functions: 800 mA (in total)
Corresponds to: ZIMO MX630N



Art. Nr.: 685305

6-pole decoder, straight Pins (NEM 651)

Decoder specifications:

Dimensions: 13 x 9 x 2.6 mm,
0.8 A constant current, 1.5 A peak current (ca. 20 ms),
6 function exits,
current limit for the function exits:
total: 0.5 A,
2 logic level exits, SUSI, DCC, MM, RailCom* and much more.

Corresponds to: ZIMO MX617N



Art. Nr.: 686101

6-pole decoder, straight Pins (NEM 651)

Decoder specifications:

Dimensions: 14 x 9 x 2.5 mm,
0.8 A constant current, 1.5 A peak current (ca. 20 ms),
4 function exits,
current limit for the function exits:
total: 0.5 A,
2 logic level exits,
2 servo control lines SUSI, DCC, MM, RailCom* and much more.

Corresponds to: ZIMO MX622N





Art. Nr.: 686201

8-pole decoder with plug (NEM 652)

Decoder specifications:

Dimensions: 14 x 9 x 2.5 mm,
0.8 A constant current, 1.5 A peak current
(ca. 20 ms),
4 function exits,
current limit for the function exits:
total: 0.5 A,
2 logic level exits,
2 servo control lines SUSI, DCC, MM, RailCom*
and much more.

Corresponds to: ZIMO MX622R



Art. Nr.: 685101

Next18 decoder (NEM 662)

Decoder specifications:

Dimensions: 15 x 9.5 x 2.8 mm,
0.7 A constant current,
4 function exits,
4 logic level exits, 2 of them as servo control
lines or SUSI, equipped with all ZIMO characteris-
tics: DCC, MM, SUSI, RailCom*, NMRA,
ZIMO function mapping
and much more.

Corresponds to: ZIMO MX618N



Art. Nr.: 685602

Next18-sound decoder (NEM 662)

Decoder specifications:

Dimensions: 25 x 9.5 x 4 mm
0.8 A - 1W audio,
4 function exits,
4 logic level exits, 2 of them as servo control
lines or SUSI, equipped with all ZIMO characteris-
tics: DCC, MM, SUSI, RailCom*, NMRA, ZIMO
Function mapping and much more.

Corresponds to: ZIMO MX658N18



Art. Nr.: 687701

6-pole miniature sound decoder (NEM 651)

Decoder specifications:

Dimensions: 23 x 9 x 4 mm,
0.7 A constant current,
1.5 A peak current
4 function exits, current limit for the function
exits: total: 0.5 A
2 logic level exits, SUSI, DCC, MM, RailCom*,
8 Ohm, 1W, 32 Mbit and much more.

Corresponds to: ZIMO MX649N







Art. Nr.: 10798

Train controller and switching power supply

This controller set is best suited for beginners and running just one train. It consists of one controller and plug-in transformer, designed to compliment each other. The controller gives a definite forwards and backwards control and speed settings. The control knob clicks gently into a zero position. Automatic overload protection. Easy connection to the layout using the pressure connection clips.

Technical data:

- ▶ Running voltage: 0–14 V= / 0.6 A
- ▶ Separate accessory output: 14 V= / 0.85 A
- ▶ Automatic overload protection
- ▶ Regulator with zero point setting



Art. Nr.: 10726

Power distributor

Necessary for connecting var. accessories (turnouts, light, signals, etc.) to the new transformers/switching power supplies. Input is a coaxial socket, outputs – via a luster terminal and four 3-pole connector zones (to our existing connection system 10603) and via a fixed cable with a coaxial connector to the control device or the digital device.



Art. Nr.: 670601

Light transformer for high capacity

This transformer is the high capacity power pack for the operation of electromagnetic items such as signals, turnout drives, relays, illumination and other accessories

- ▶ It has an integrated thermal protection switch against short circuit and overload
- ▶ Easy connection to the layout using the pressure connection clips
- ▶ Distribution with 10726

2 outputs:

Cable: 16 V~ / 2.5 A (for 10764 and 10765); Clips: 14 V~ / 2.85 A. The transformer replaces the former article 6706 (FLEISCHMANN) and 10725 (ROCO).



Art. Nr.: 10723

Switching power supply

- ▶ For accessory feed.
- ▶ Attention: Not suitable for z21/Z21!

Technical data:

Input voltage: 230 V ~

Output voltage: 15 V ~

Output current: 0.4 A

Art. Nr.: 10749

DC power jack



This adapter enables the Z21 switch DECODER (10836) or the Z21 signal DECODER (10837) to be easily supplied with a switching power supply such as the 10851 or the 10850.

▶ **Please note:** The combined current requirement of the locomotives, points and lighting which you wish to operate must not be higher than the specified total current of the transformer. Otherwise, the transformer may be overloaded and switch off, or the accessories (for example, point drives) may no longer function properly.

The FLEISCHMANN finger tip control panel

Simple to plug together, clear indication panels. A robust control panel of FLEISCHMANN switches to make up a model railway signal box. All switches have indicator panels (e. g. to number the points) and are clearly marked to indicate their function. Dimension approx: 60 mm length x 33 mm width x 34 mm height

Art. Nr.: 6920

Point switch. To operate 2 points or 2 double slips.

Art. Nr.: 6921

Signal switch. With train control - to operate colour light signals *without* electric motor.



Art. Nr.: 6928

Signal switch. To operate double-arm semaphore signals.

Art. Nr.: 6927

Signal switch. To operate single-arm semaphore signals.

Art. Nr.: 6922

Impulse switch. I. e. to operate 4 uncoupler tracks.

Art. Nr.: 6923

On / off switch. I. e. to turn power on/ off to circuits, isolated sections or lighting, etc.

Art. Nr.: 6924

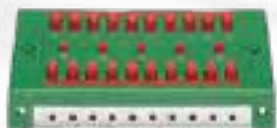
Reverse switch. For example to reverse the direction of running.

Art. Nr.: 6925

Impulse switch. To operate one three-way point.

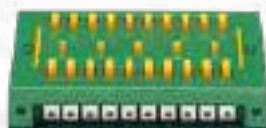
Note: www.fleischmann.de >Service > Downloads gives you lots of additional information about the FLEISCHMANN finger tip control panel

Art. Nr.: 6940



Distributor panel, 2 pole, for 10 connections each side

Art. Nr.: 6941



Connector panel. To extend and connect up to 10 wires.

Art. Nr.: 6950



Track rectifier

Track rectifier bridges over isolating connections in just one direction (for running through signaled sections in the opposite direction) low speed settings.

Not suitable for use with digital layouts.

Art. Nr.: 6955



Universal relay

2 separate banks of switches (i.e for automatic switching, light signals, train control etc.) Current output up to 3 A at 25 V per switch contact.

Fleischmann | **TRACK SYSTEMS**

FLEISCHMANN N-GAUGE track systems for your unlimited model railway enjoyment

In the comprehensive FLEISCHMANN track system range, you are sure to find the right N-gauge track for your requirements, whether you select a track systems with realistic gravel beds, with an equally finely-crafted track bed reproduction or completely without a bed, to add gravel yourself (N-gauge). Using the different track systems by FLEISCHMANN, your track plan ideas can be realised without any trouble at all!







The N gauge track with ballast bed



Technology:

- Running with the internationally widespread 2 rail DC system
- Ideal current carrying capacity even over long distances through solid profile rails made of high quality nickel silver alloy

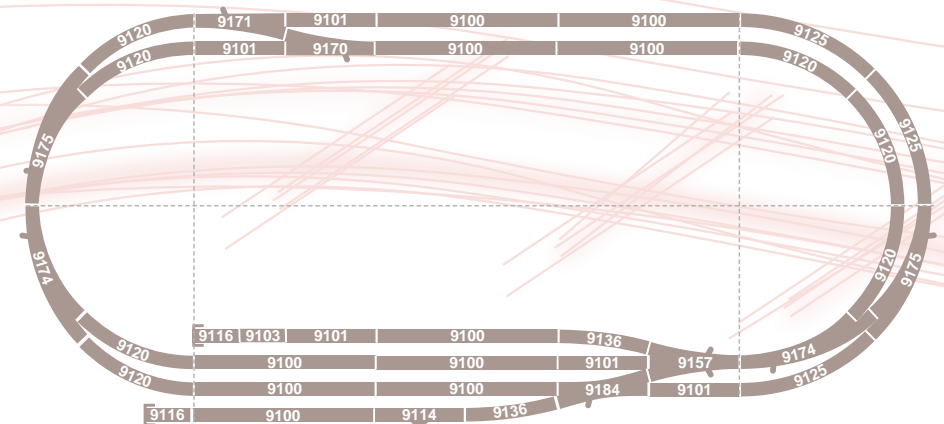
Visual appearance:

- Realistic appearance with true to the original wood sleepers and ballast bed

Clear track geometry:

- Play and model train layout with many combining track layout alternatives
- Grid with track geometry
- All switches can be upgraded to electrical remote control by plugging in an electric drive

The N gauge track system:



The trackwork

The FLEISCHMANN N-gauge track system impresses customers with its realistic appearance, the prototypical wooden sleepers and the gravel beds. This is due to the perfect reproduction of the gravel size and the irregular progression of the gravel bed on the outer edges of the tracks as well as the filigree engravings on the contrasting colour wooden sleeper imitations.

The width and height of the gravel bed have been selected so that they achieve a smaller parallel track distance when the tracks are laid in station areas, without the gravel bed being in the way.

The track geometry

The basis for the track geometry of this track system is the straight "Basic" track 9101. Here the points - normal, three-way, curved and dual crossing points - are also incorporated into the track grid. Curved tracks with four radii, a flexible gravel track, with which you can also generate extremely large radii, normal, curved, three-way and dual crossing points permit you to design many interesting track combinations.

Special and function tracks, decoupling tracks and a buffer stop track complete the track system, as do railway crossings and a variable levelling piece.

The „intelligent“ points

Simply by plugging in the electric drive, you can subsequently retrofit all manual points on this track system for electrical remote control. All points are designed as "intelligent" points. In just a few easy steps, you can make the driving current flow only in the direction in which the points are set. In delivery condition, all points are initially through traffic points. This means that all track connections continuously transmit current.

These "intelligent" points permit you to park locomotives or to move trainsets pulled by locomotives onto sidings or passing loops without requiring different wiring.

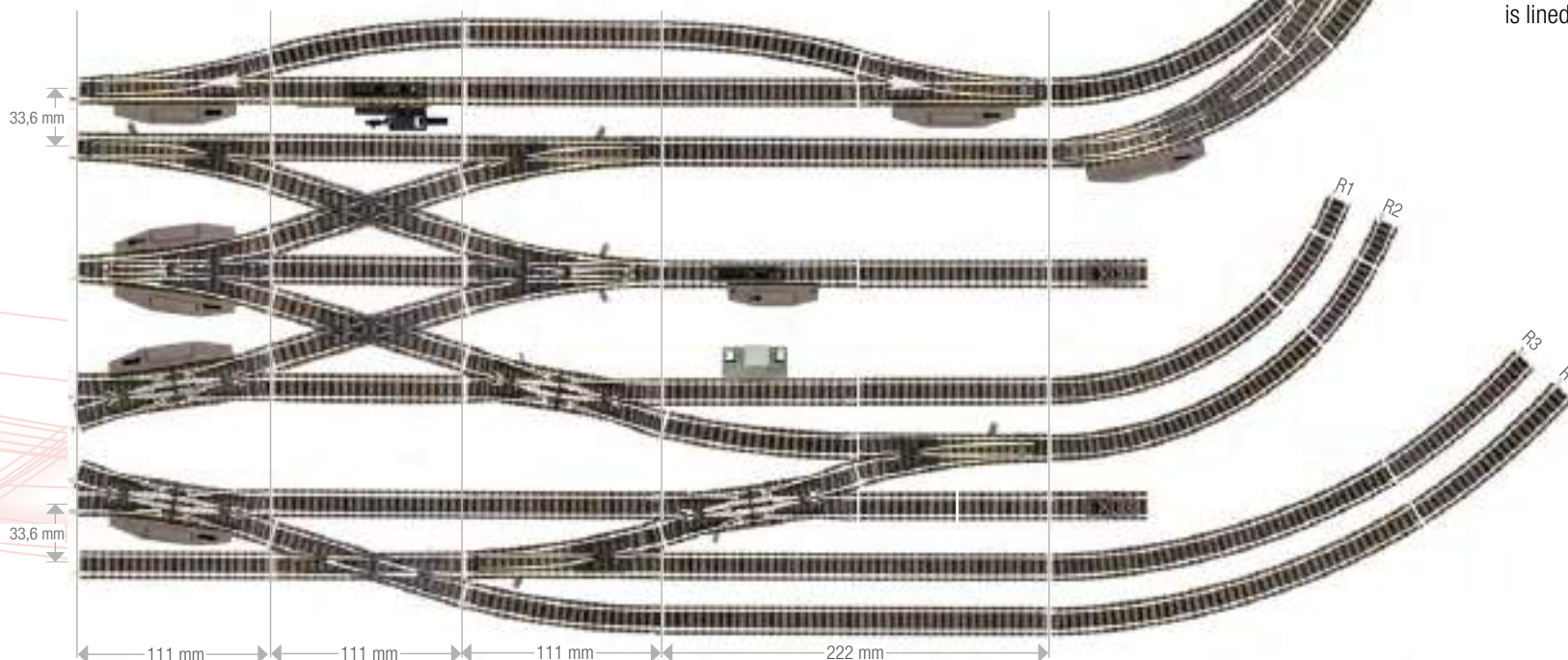
The „thinking“ points allow locos, or loco hauled trains, to be stored in sidings or passing loops without any additional wiring.

The parallel track distance

Two parallel running tracks, joined together via standard points, have the narrow gap of 33.6 mm (measured from track centre to track centre).

The turntable

The electrically driven super-model turntable is the focal point of a loco depot. Due to their sophisticated technology concept – each track exit only receives power when the turntable is lined up with it – that means they can think too!



With the combined track sets, you can expand step by step your beginner's layout to a large size and complex model railway layout.

Track set B1

Art. Nr.: 919010

Contents:

- 6 straight tracks (9100)
- 1 straight track (9101)
- 1 manual turnout left (9170)
- 1 buffer stop (9116)

Layout size: 118 cm x 40 cm

Track set C1

Art. Nr.: 919011

Contents:

- 1 straight track (9100)
- 2 straight tracks (9101)
- 1 manual turnout right (9171)
- 1 curved turnout right (9175)
- 1 curved track (9136)
- 1 uncoupler track (9114)

Layout size: 118 cm x 44 cm

Track set D1

Art. Nr.: 919012

Contents:

- 9 straight tracks (9100)
- 3 straight tracks (9101)
- 7 curved tracks (9125)
- 2 manual turnouts left (9170)
- 1 curved turnout left (9174)
- 1 buffer stop (9116)

Layout size: 147 cm x 48 cm

Track set E1

Art. Nr.: 919013

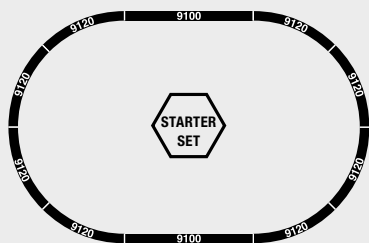
Contents:

- 2 straight tracks (9101)
- 2 manual turnouts left (9170)
- 2 manual turnouts right (9171)
- 1 uncoupler track (9114)
- 2 curved tracks (9120)
- 2 buffer stops (9116)

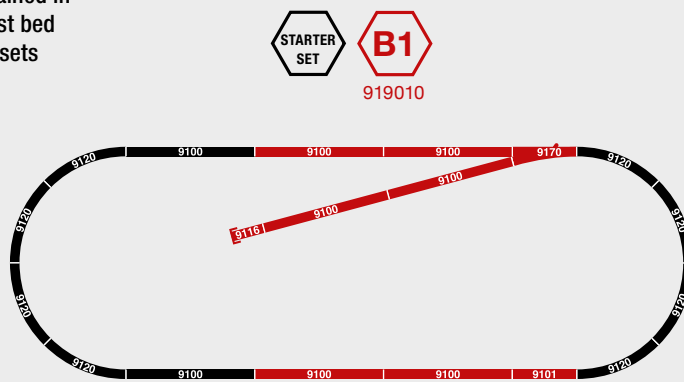
Layout size: 147 cm x 48 cm

All track sets: Points and uncoupler tracks are adaptable with electric point motors.

The track set STARTSET is the minimum layout contained in all starter sets with FLEISCHMANN tracks with ballast bed and cannot be purchased separately. All other track sets are extensions of this layout.



118 cm x 40 cm



118 cm x 40 cm

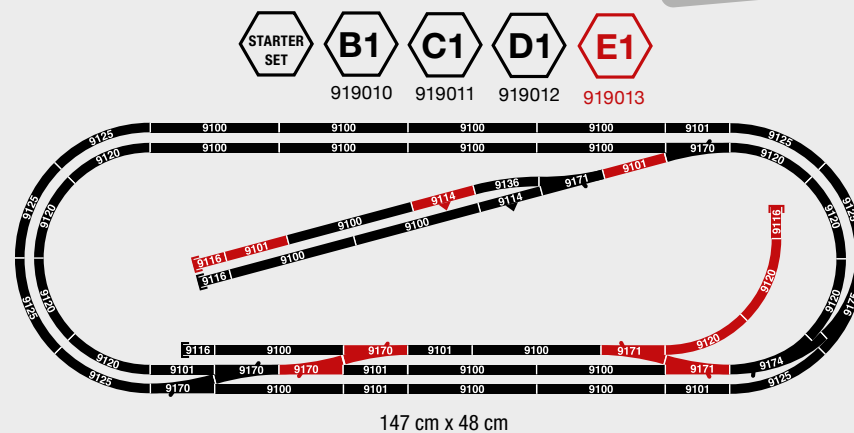
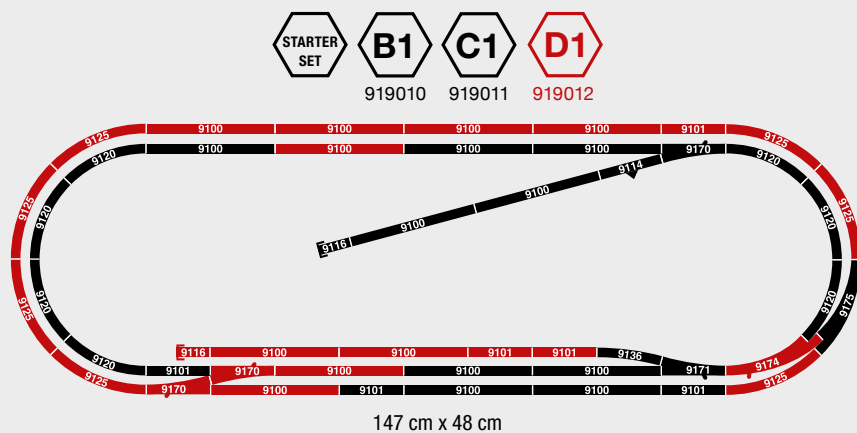


118 cm x 44 cm

Art. Nr.: 919501



A detailed model train layout featuring a red and white locomotive pulling a blue and yellow passenger car, and a red freight car. The train is on a track with multiple crossings and a signal light.



Startsets:
www.fleischmann.de

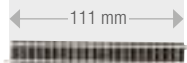
Straight tracks

Art. Nr.: 9100



Straight track, length: 222 mm.
(2x basic track). 20 pc./pack.

Art. Nr.: 9101



Straight track, length 111 mm (basic track).
20 pc./pack.

Art. Nr.: 9102



Straight track („diagonal“ track), length: 57.5 mm.
20 pc./pack.

Art. Nr.: 9103



Straight track, length 55,5 mm (1/2 length of basic track 9101).
20 pc./pack.

Art. Nr.: 9104



Straight track, length 27.75 mm (1/4 length of basic track 9101).
20 pc./pack.

Art. Nr.: 9110



Straight extendable track, length 83 mm to 111 mm.
5 pc./pack.

Art. Nr.: 9112



Uncoupler track with electric motor, length 111 mm.

Art. Nr.: 9114



Manual uncoupler track, length 111 mm.
5 pc./pack.

Art. Nr.: 9414



Clip-on electric motor for the manual uncoupler track 9114.

Art. Nr.: 9115



Track with built in switch contact, length 55.5 mm.
2 pc./pack.
The switching impulse (max. 800 mA) is activated
by the passage of the magnets 942601 or 942701.

Art. Nr.: 9108



2-pole power feed track, length 111 mm,
with interference suppressor.

9108: The suppressor is concealed inside the lineside hut.
Not suitable for use with digital operation.

Art. Nr.: 9116



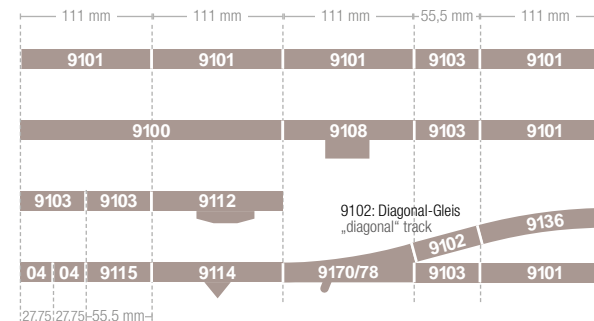
Buffer stop, length 57.5 mm. 5 pc./pack.

The basic track:

Basis of the track geometry is the 111 mm track piece 9101.

The straight section of the normal switch, the three-way switches and the double slip switches are also based on this track.

For longer straight distances the track 9100 with double length is suitable.



Flexible tracks

Art. Nr.: 9106



Flexible track, length 777 mm.

Due to its flexibility, this track is ideal for gentle, flowing curves to show off the trains.
Ideally suited for long straight lengths. 20 pc./pack.

Art. Nr.: 9119

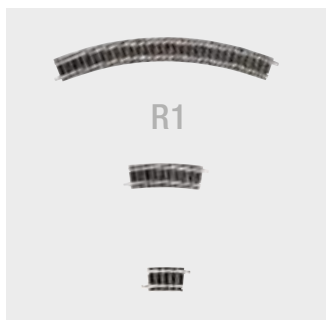
Flexible rack track, length 222 mm. 10 pc./pack..

This track can be curved to the desired radius, even down to the minimum radius R1(9120). The rack section always remains the same length, although the rail section will need to be trimmed to length accordingly.

- Can be joined using the rail joiners 9403 or 9404.

Curved tracks

Art. Nr.: 9120



Curved track, 45°, radius R1: 192 mm.
Outer diameter: 401 mm. 8 tracks make up a circle.
20 pc./pack.

Art. Nr.: 9122



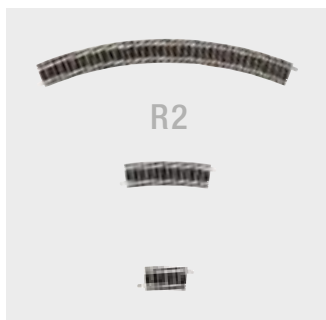
Curved track, 15°, radius R1: 192 mm.
20 pc./pack.

Art. Nr.: 9123



Curved track, 7.5°, radius R1: 192 mm.
20 pc./pack.

Art. Nr.: 9125



Curved track, 45°, radius R2: 225.6 mm.
Outer diameter: 468 mm. 8 tracks make up a circle.
20 pc./pack.

Art. Nr.: 9127



Curved track, 15°, radius R2: 225.6 mm.
20 pc./pack.

Art. Nr.: 9128



Curved track, 7.5°, radius R2: 225.6 mm.
20 pc./pack.

Art. Nr.: 9130



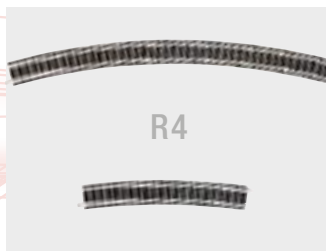
Curved track, 30°, radius R3: 396.4 mm.
Outer diameter: 810 mm, 12 tracks make up a circle.
20 pc./pack.

Art. Nr.: 9131



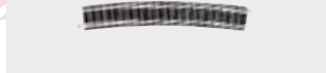
Curved track, 15°, radius R3: 396.4 mm.
20 pc./pack.

Art. Nr.: 9135



Curved track, 30°, radius R4: 430 mm.
Outer diameter: 877 mm. 12 tracks make up a circle.
20 pc./pack.

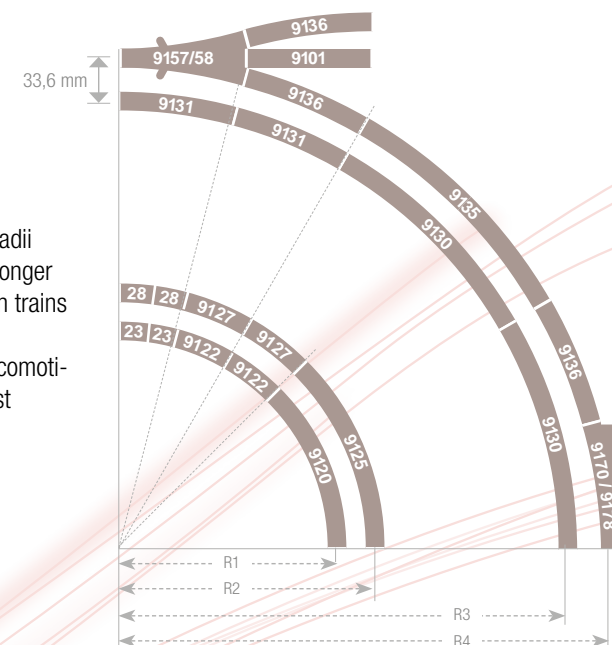
Art. Nr.: 9136



Curved track, 15°, radius R4: 430 mm.
20 pc./pack.
Opposite curve for points.

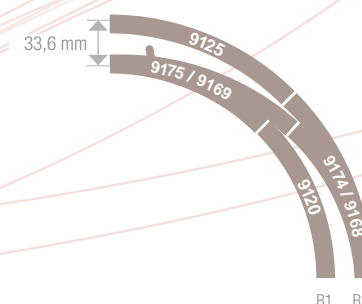
The track radii:

The distance of the track radii is 33.6 mm, so that even longer vehicles do not touch when trains meet and enter the curve. Even the longest tender locomotives can run on the smallest radius R1!



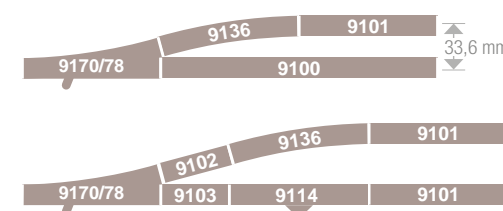
Curved points

to change from radius R1 to radius R2 and viceversa.



Opposite curve 9136

for straight points, threeway-points, double-slips and crossings 15°.



Points

Art. Nr.: 9170



Left hand standard point for manual operation, length 111 mm

Art. Nr.: 9171



Right hand standard point for manual operation, length 111 mm

Art. Nr.: 9174



Left hand curved point for manual operation

Art. Nr.: 9175



Right hand curved point for manual operation

Points with current-conducting frog

Art. Nr.: 9178



Left hand standard point for manual operation, with current-conducting frog, length 111 mm

Art. Nr.: 9179



Right hand standard point for manual operation, with current-conducting frog, length 111 mm

Art. Nr.: 9168



Left hand curved point for manual operation, with current-conducting frog

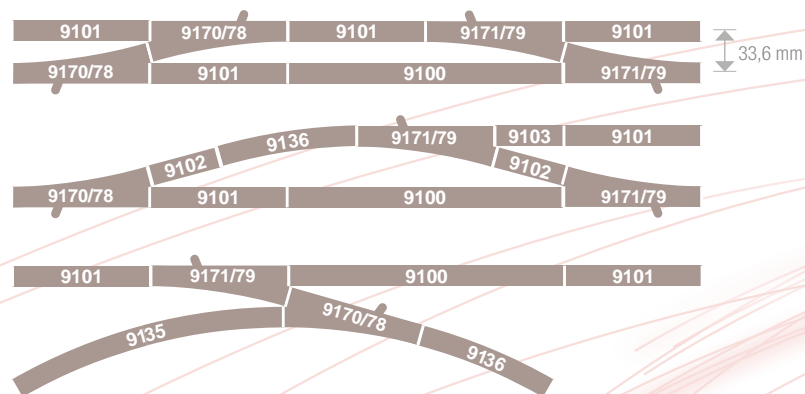
Art. Nr.: 9169



Right hand curved point for manual operation, with current-conducting frog

Straight points (standard and three-way points, double slips):

Length 111 mm (standard length), branch-off angle 15°, branch-off radius 430 mm. The branch-off tracks correspond to track 9136 (15°). The track 9136 serves as opposite curve and leads to the parallel track distance of 33.6 mm.



All points are adaptable with electric point motors.

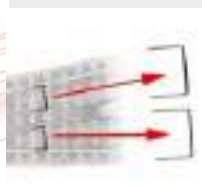


The current-conducting frog

On several points, the current-conducting frog ensures good electrical contact when running through frog area of the points.

These points cannot be „slipped“ through whilst set in the wrong direction, otherwise this can cause a short circuit. Therefore, the points must always be set in the right direction.

The polarisation of the frog, in other words, the changing from „positive“ to „negative“, which is essential as the points are set, is carried out automatically when setting the point.



As delivered, **all** points are so-called live points, i.e. all track exits conduct electricity and can be run over by any powered vehicle. If the two wire bridge clips are taken out of the point, then the current only flows in the track exit for which the point is set.

This makes it possible to store trains without power, without any additional wiring. For example, a fast express can pass a stored goods train on a parallel track.

Point set to "straight on"



Point set to "branch-off"



Three-way point and crossings

Art. Nr.: 9157



Three-way point for manual operation, length: 111 mm

Art. Nr.: 9161



Crossover track 30°, length: 115 mm
(= 2 x „diagonal track“ 9102).
Fitted with guard-rails and frogs.
The two routes are insulated from one another.

Art. Nr.: 9162



Crossover track 15°, left hand crossing, length: 111 mm

Art. Nr.: 9163



Crossover track 15°, right hand crossing, length: 111 mm

9162 / 9163:

The two tracks which cross over each other are electrically separated, so that two different track circuits can cross.

Art. Nr.: 9184



Double slip for manual operation, 15°, left hand crossing, length: 111 mm

Art. Nr.: 9185



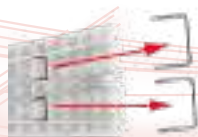
Double slip for manual operation, 15°, right hand crossing, length: 111 mm

9184 / 9185:

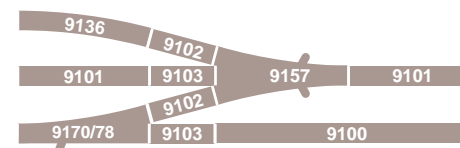
As delivered, all track exits deliver power into one circuit. By removing the wire bridge clips the crossing tracks become electrically isolated from each other.

On the „crossover“ setting, another track circuit can be traversed.

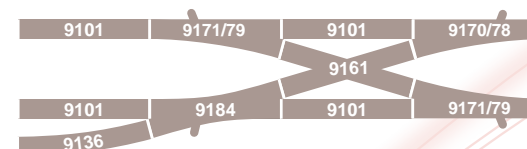
On the „branch-off“ setting, the current is separated at the centre of the points.



Three-way point:



Crossover track:



Double slip:



Ponit accessories



Art. Nr.: 640000

Electromagnetic point motor (universal/gauge H0 and N) with end-off switching.* For all points

Prepared to accept the clip-in illuminated point lantern 944001.

This point motor can be either plugged onto the railway layout board or underneath the railway layout board.

For this purpose, a slot is cut into the railway layout where the point motor comes to rest.

* The universal point motor 640000 replaces the items 942101 and 942201.

All points are adaptable with electric point motors.



Art. Nr.: 944001

Illuminated point lantern signal for N tracks with ballast bed. Clip onto the point motor 640000.

Connecting pieces to the point motor are included.



Art. Nr.: 9152

Electrically operated turntable with individual electrically switchable track exits, with turntable switch 6910. Length of the turning bridge: 183 mm.

The turntable is prototypically mounted in a recess and fitted with accurate details. As delivered, there are 6 exit tracks and 4 over-run ends.

The exit tracks can be unclipped and repositioned as desired, or extended using the turntable extension set 9153 right up to the complete 48 exits.

Note:

Control your turntable easily – with TURN-CONTROL, the electronic turntable control (item no. 6915).



Art. Nr.: 9153



Extension set for turntable 9152

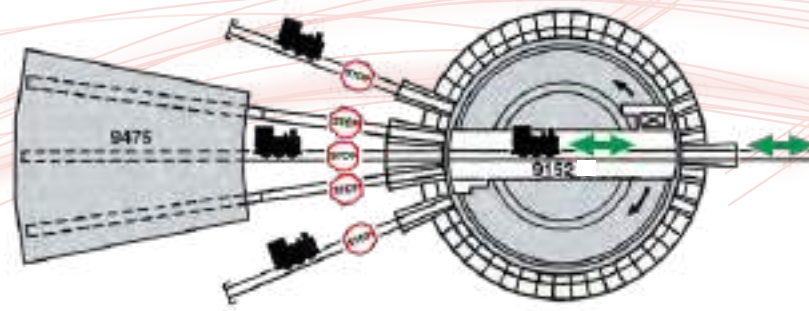
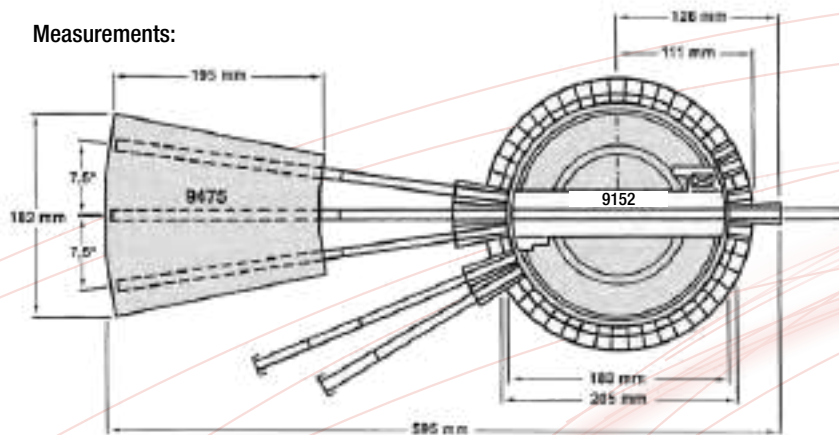
Containing 3 exit tracks and 3 over-run ends.

The „thinking“ turntable:

Using the switch 6910, will determine the rotation direction in order to access the desired exit. The power feed is activated within the turning bridge. The power to the track exit with which the turntable is lined up, either left or right, can be fed with power using the switch 6910. All other track exits remain isolated (even those opposite each other).

A maximum of 48 track exits can be controlled and electrically operated without the need for any additional wiring.

Measurements:



The „thinking“ turntable



Art. Nr.: 6915

TURN-CONTROL

Turntable Controller with track pre-selection

For analogue and digital operation

For use in conjunction with the FLEISCHMANN turntable 9152.

Suitable for operation with 2-rail DC operation and with the digital systems – DCC and FMZ.

To put into operation, no changes or alterations to the turntable are necessary.

Advantages

- An LCD display gives a visual indication of the setting of the turntable bridge, the location of the track exits and shows the active track exit, together with additional functions.
- Symbols of the active functions give it a simple, user-friendly operation. Each track exit can be individually controlled.
- By pressing a button, a comfortable turning of a locomotive is possible.
- Because the polarity control is catered for by the switch, when rotating through 360°, the turntable is protected against short circuit.



Art. Nr.: 6910

Turntable switch

To operate the electric turntable 9152 with electrically switchable track exits
Ø 63 mm



Art. Nr.: 9475

Locomotive roundhouse (kit).

Suitable for use with turntable 9152.

3 locomotive stalls set at 7.5° track exits, with 8 operating doors. Outstanding plastic detailing with several individual pieces for individual decoration are included. The doors work independently of each other and are automatically closed and opened by entering and exiting locomotives.

Several roundhouse kits can be assembled alongside each other.



On the rear of the shed, one set of doors can be opened for running through.



Art. Nr.: 9499

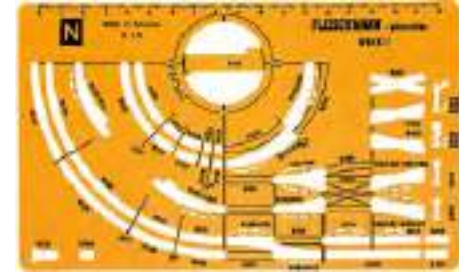
Ungated level crossin

With warning crosses and re-railing section.
Length 55.5 mm. (1/2 length of the basic track)

Art. Nr.: 995101

Track Stencil for N gauge

Suitable for N tracks with ballast bed.
The track stencil is handy for designing layouts.
Scale 1:5.







FLEISCHMANN N-gauge track system without ballast bed

The basis of every model railway system is the rails. For construction and dismantling purposes, FLEISCHMANN offers a comprehensive range of N-gauge tracks which leave none of your model railway wishes unfulfilled. With tracks in eight different radii, the standard points, crossing points, the space-saving three-way points and the slimline model points and crossings, your imagination will know no bounds. In addition, the flexible tracks allow you to create an individual model system design. For optimised power transmission, the track profiles are designed in nickel-silver. The sleepers and rails on this track system are also very finely detailed.

Select between two flexible track designs: The extra-flexible track (22200) permits you to create almost any curve. It is particularly suitable for constructing curved line sections or transitional curves. The slightly more rigid flexible track (22201) is perfect when building long, straight sections. Both tracks feature a length of 730 mm, which is approximately seven times the length of the standard straight sections 22203, and can be equipped with the necessary rail connectors 22213 and the sleeper end pieces 22215.

Points are available with three different branch radii and angles, and two different crossings. The electromagnetically-operated points are activated via drives switched off at the end of travel. This prevents the coils burning through in case the switching current were to continue supplying the drive.

All points have rolled rail profiles made from nickel-silver which are milled in the areas where they are contacted by the point tongues. The point tongues are also milled, and thus permit smooth running. To improve the power supply in the core area, all points (except for crossing 22244 and 22245) are equipped with additional contact plates which can be electrically connected with the neighbouring rail profiles.



Convince yourself of the optimal price-performance ratio of this N-gauge track system, and enjoy the individual design possibilities offered for your model railway system!

Flexible tracks

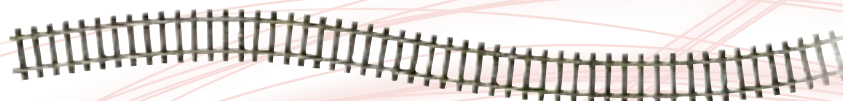
You can choose which of two tracks to use:

the **extra flexible track (22200)** can be curved as desired. It is especially suitable for gentle, winding curves.

However, for making up long straight stretches, the rather-**more rigid flexible track (22201)** would be more suitable.

Both tracks have a length of 730 mm, approximately 7x length of the standard straight track 22203. You need rail joiners 22213 for both flexible tracks.

Art. Nr.: 22200



Flexible track, length: 730 mm, especially flexible.
12 pc. per pack.

Art. Nr.: 22201



Flexible track, length: 730 mm, less flexible, more rigid.
12 pc. per pack.

Straight tracks

Art. Nr.: 22202



Length: 312.6 mm = 3 x 22203 (standard track). 12 pc./pack.

Art. Nr.: 22203



Length 104.2 mm (standard length). 12 pc./pack.

Art. Nr.: 22204



Length: 54.2 mm. 12 pc./pack.

Art. Nr.: 22205



Length: 50 mm. 12 pc./pack.

Art. Nr.: 22206



Length: 33.6 mm. 12 pc./pack.

Art. Nr.: 22207



Length: 17.2 mm. 12 pc./pack.

Art. Nr.: 22215



Sleeper end piece for flexible track.

To enhance the appearance of flexible track ends which have been cut to size, ensuring a correct sleeper spacing. 24 pc./pack.

Function tracks

Art. Nr.: 22210



Re-railer track.

Length 104.2 mm (standard length).

Automatic re-railer for vehicles running over the centre section. 12 pc./pack.

Art. Nr.: 22212



Electromagnetic uncoupler track.

Length 104.2 mm (standard length).

The built-in uncoupling part for the standard coupling can be replaced with the attached uncoupling part for short coupling operations.

Art. Nr.: 22220

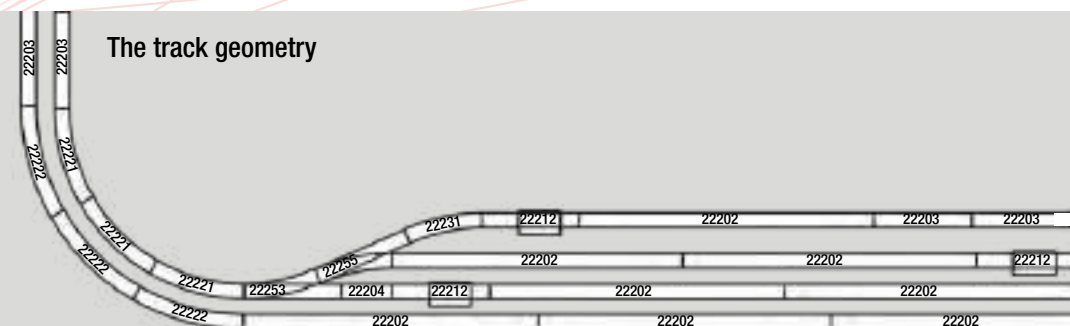


Feeder track with radio suppressor unit.

Length 104.2 mm (standard length).

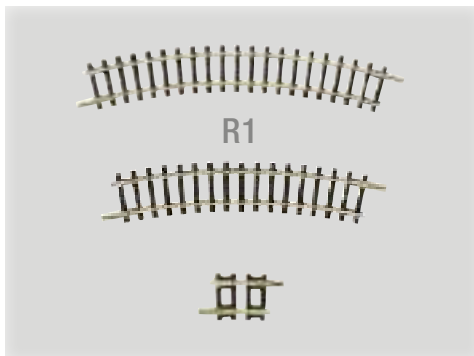
Not suitable for use in digital operation.

The track geometry



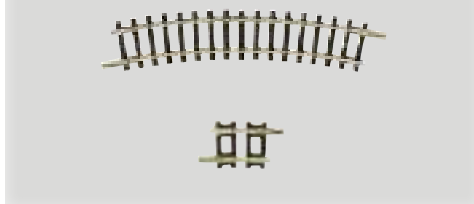
Curved tracks

Art. Nr.: 22221



R1, 30°. Radius 194.6 mm
12 pieces are needed to form
a full circle. 12 pc./pack.

Art. Nr.: 22231



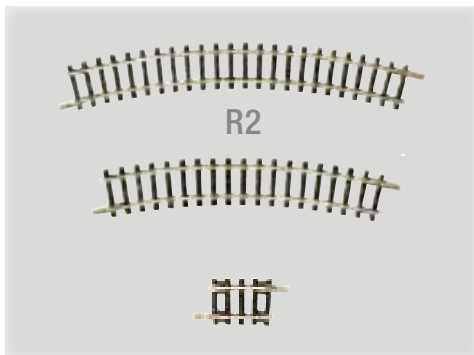
R1, 24°. Radius 194.6 mm
12 pc./pack.

Art. Nr.: 22232



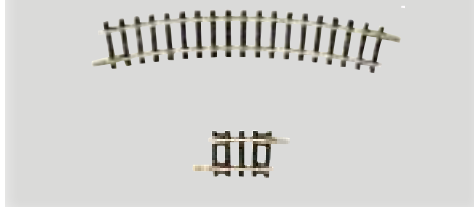
R1, 6°. Radius 194.6 mm
12 pc./pack.

Art. Nr.: 22222



R2, 30°. Radius 228.2 mm
12 pieces are needed to form
a full circle. 12 pc./pack.

Art. Nr.: 22233



R2, 24°. Radius 228.2 mm
12 pc./pack.

Art. Nr.: 22234



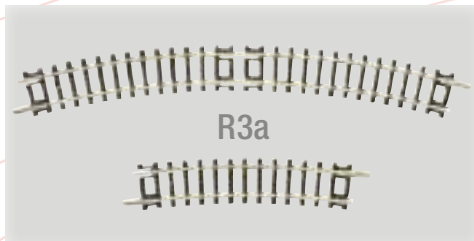
R2, 6°. Radius 228.2 mm
12 pc./pack.

Art. Nr.: 22223



R3, 30°. Radius 261.8 mm
12 pieces are needed to form
a full circle. 12 pc./pack.

Art. Nr.: 22224



R3a, 30°. Radius 295.4 mm
12 pieces are needed to form
a full circle. 12 pc./pack.

Art. Nr.: 22235



R3a, 15°. Radius 295.4 mm
12 pc./pack.

The track radii.

The illustration shows a representation of all the various track radii.

Radius R1 is designed primarily as the „standard industry radius“.

Running longer coaches or larger locomotives is thus only recommend for R2 or higher.

R1	.....	194.6 mm
R2	.....	228.2 mm
R3	.....	261.8 mm
R3a	.....	295.4 mm
R4	.....	329 mm
R5	.....	362.6 mm
R6	.....	480 mm
R7	.....	765 mm

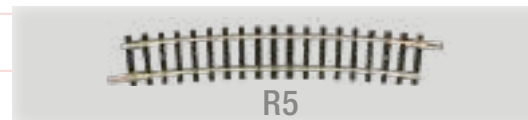


Art. Nr.: 22225



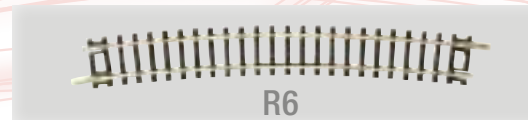
R4, 15°. Radius 329 mm
12 pc./pack.

Art. Nr.: 22226



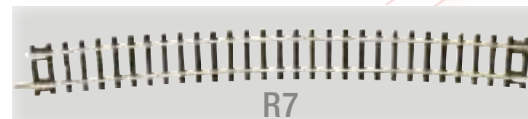
R5, 15°. Radius 362.6 mm
12 pc./pack.

Art. Nr.: 22227



R6, 15°. Radius 480 mm
12 pc./pack.

Art. Nr.: 22228



R7, 12°. Radius 765 mm
12 pc./pack.

Mainly used as the opposite curve for points 22301/22303.

Points

There are points with three different branch-off radii and angles, and another two different crossings.

The electrically operated points have end-off switching, therefore protecting the motor windings from burning out even if the power is not switched off.

All points have nickel silver rails which are carefully milled out so that the point blades nestle neatly into position. The point blades themselves are also shaped to give trouble-free running.

All electrically operated points can also be changed manually if required.

For improved current pick-up in the frog area, all points (except the cross-overs 22244 and 22245) are fitted with additional pickup contacts.

Art. Nr.: 22249



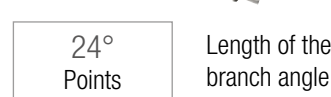
22249: Electric left hand point 24°

Art. Nr.: 22253



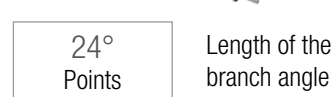
22253: Manual left hand point 24°

Art. Nr.: 22251



22251: Electric right hand point 24°

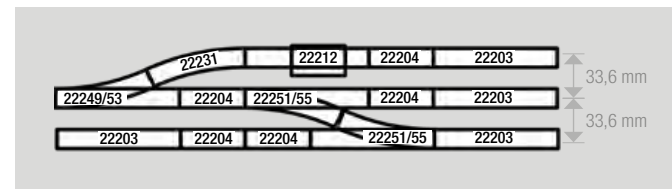
Art. Nr.: 22255



22255: Manual right hand point 24°

24°
Points

Length of the straight track is 104.2 mm (standard length), branch angle 24°, branch radius 194.6 mm 194.6 mm (corresponds to R1), extendable to 30° using track 22232.



Art. Nr.: 22261



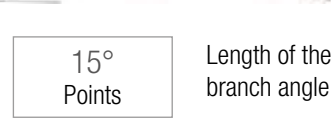
22261: Electric left hand point 15°

Art. Nr.: 22265



22265: Manual left hand point 15°

Art. Nr.: 22263



22263: Electric right hand point 15°

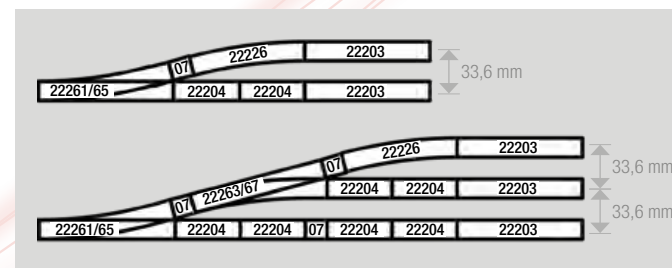
Art. Nr.: 22267



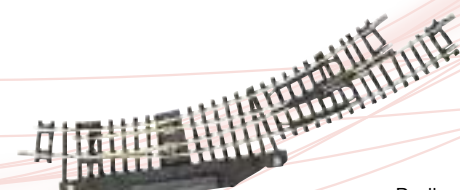
22267: Manual right hand point 15°

15°
Points

Length of the straight track is 112.6 mm, branch angle 15°, branch radius 362.6 mm (corresponds to R5).



Art. Nr.: 22273

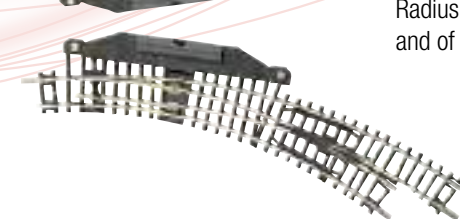


Electric left hand curved point
(radius R1/R2)

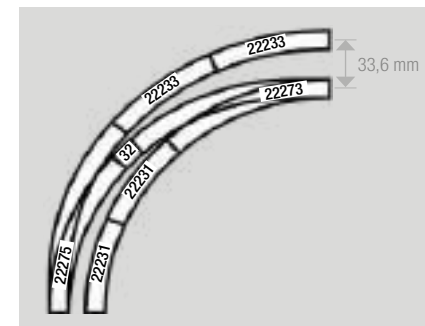
Using the curved turnouts, you can change from one track circle with R1 into another circle of R2.

Radius of main track 194.6 mm (R1), and of the branch track 228.2 mm (R2), arc angle 42°.

Art. Nr.: 22275



Electric right hand curved point (radius R1/R2)



Points and crossings

Art. Nr.: 22301

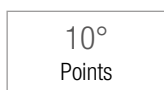


Left hand point without point mechanism, 10°

Art. Nr.: 22303

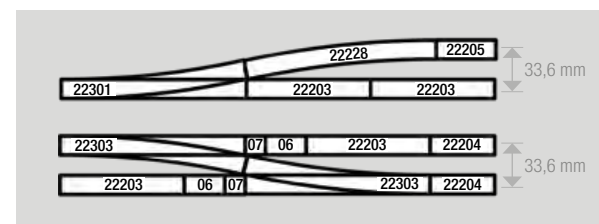


Right hand point without point mechanism, 10°



Length of the straight track is 155 mm,
radius of the branch-off track 765 mm (corresponds to R7)

The points are adaptable with the below baseboard point mechanism 10030.

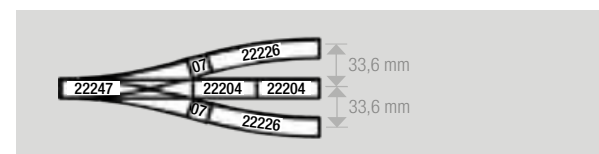


Art. Nr.: 22247



Electric three-way point 15°

Length of the straight track 112.6 mm, point angle 15°.

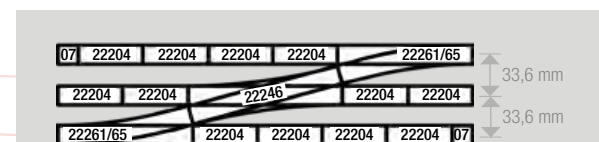


Art. Nr.: 22246

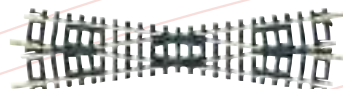


Electric double-slip point 15°

Length of the diagonal 129.8 mm, crossing angle 15°.

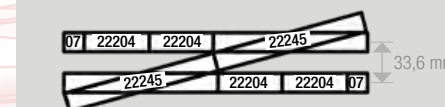


Art. Nr.: 22245

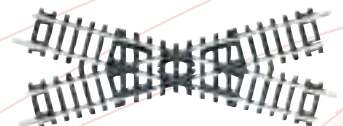


Crossing 15°

Length of the diagonal 112.6 mm, crossing angle 15°.
The crossing tracks are isolated from each other so that two independent power circuits can cross each other.
4 pc./pack.

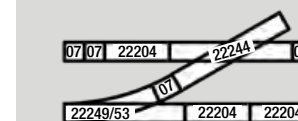


Art. Nr.: 22244



Crossing 30°

Length of the diagonal 104.2 mm, crossing angle 30°.
The crossing tracks are isolated from each other so that two independent power circuits can cross each other.
4 pc./pack.



Art. Nr.: 22218



Electric point mechanism for left hand points

Suitable for N gauge points without ballast bed.
Double spool operation with end-off switching.
For fitting to manual points.

Art. Nr.: 22219



Electric point mechanism for right hand points

Suitable for N gauge points without ballast bed.
Double spool operation with end-off switching.
For fitting to manual points.

Art. Nr.: 10030



Below baseboard point mechanism

Low energy consumption, shut off mechanism, 4 single-pole double-throw switches. - Can also be installed horizontally.
Dimensions approx. 60 x 27 x 45 mm.

Art. Nr.: 22217

Connecting cable, with no interference suppression.

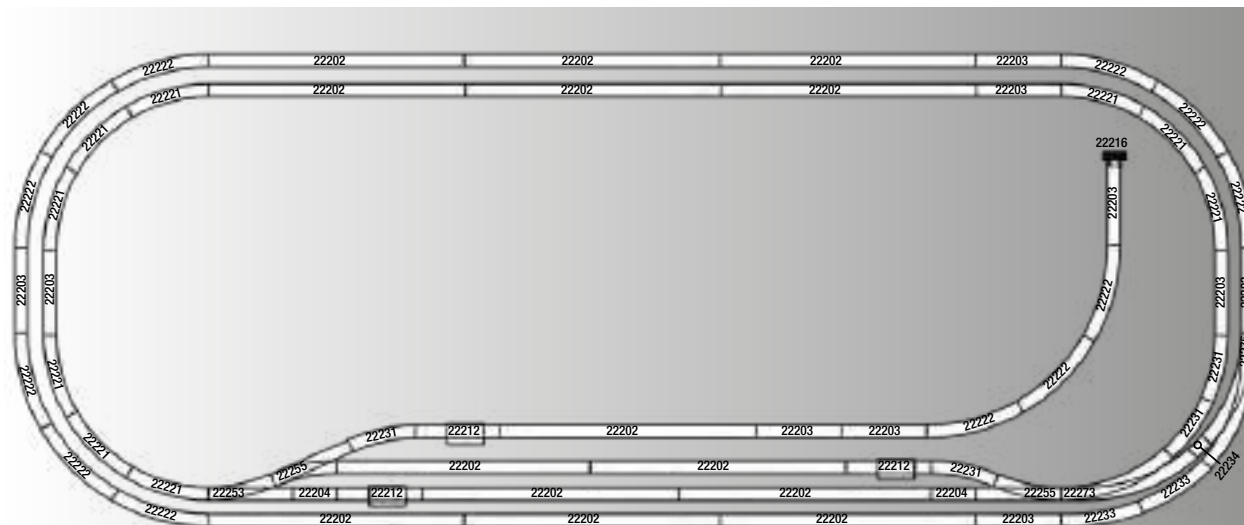


Art. Nr.: 10000



Track nails,

for fastening tracks without ballast bed,
contents approx. 400 pc./bag.



Art. Nr.: 22213



Rail joiners, for tracks without ballast bed.
50 pc./pack.

Art. Nr.: 22214



Insulating rail joiners, for tracks without ballast bed.
24 pc./pack.

Art. Nr.: 22240



Transition rail joiner to Arnold® track system
12 pc./pack.

(Arnold is a registered trademark of HORNBY ITALIA S.r.l.)

Art. Nr.: 22216



Track bumper (construction kit)
Can be placed on any track siding.



Art. Nr.: 9400

Track feed clips,
2x 1-pole
(For N tracks with ballast bed)



Art. Nr.: 9401

Connecting wire with flat contact springs, 1-pole
For train control operation of semaphore signals.



Art. Nr.: 9425

Switch contact
The switching impulse (max. 800 mA) is activated using the magnets 942601 or 942701 fitted to the train.
(For N tracks with ballast bed)



Art. Nr.: 942601

Switching magnet, angular
To activate the switch contact 9425.
To fix onto the underside of vehicles.

Surface area 7 x 7 mm, height 5 mm.



Art. Nr.: 942701

Switching magnet, circular, flat
To activate the switch contact 9425.
To fix onto the underside of vehicles.

Diameter 5 mm, height 3 mm.



Art. Nr.: 9404

Metal rail joiner
1-pole. To connect a rail track assembly electrically and mechanically. (For N tracks with ballast bed) - 20 pc./pack.



Art. Nr.: 9403

Isolating rail joiners
1-pole. For electrical isolation of track sections or joining tracks together.
(For N tracks with ballast bed) - 12 pc./pack.



Art. Nr.: 6410

Wood-screws
for fastening tracks, racks, signals, relays and signal box parts. (Gauge neutral)
Diameter: 1.4 mm, Length: 8 mm, Content: 144 pieces



Art. Nr.: 9409

Track fixing nails
In a plastic container.
Contents: approx. 500 pieces
Length: 7 mm



Art. Nr.: 9479

Ballast scatter material
Finely grained ballast scatter to go between tracks.
Especially for N gauge.



Art. Nr.: 6595

Track cleaning rubber
For manually cleaning the rail surfaces and wheels.



Art. Nr.: 6599

FLEISCHMANN lubricating oil.
For lubricating all vehicles.
Content: 20 ml.



Art. Nr.: 9480

Rerailer (without vehicle shown)
For easily of placing vehicles on the track.



Art. Nr.: 9481

Unloading tipper unit for tipper wagons (8500)
One covered unloader and resetting of side-tipper wagons.
Suitable for use on all straight N tracks.
The unloader can only be used by locos pushing the wagons through to empty them and lokos need to start in front of the unloading tipper.

Interior lighting units



Art. Nr.: 944501

LED interior lighting unit

LED interior lighting unit to replace the items 9445, 9457 and 9458.



Art. Nr.: 944701

LED interior lighting unit

to replace the item 9447.



Art. Nr.: 945301

LED interior lighting unit

LED interior lighting unit to replace the items 9453, 9460, 9464, 9468.



Art. Nr.: 946501

LED interior lighting unit

LED interior lighting unit to replace the item 9465.



Art. Nr.: 946701

LED interior lighting unit

LED interior lighting unit to replace the item 9467.



Art. Nr.: 946901

LED interior lighting unit

LED interior lighting unit to replace item 20021.

Advantages of the LED interior lighting units:

Thanks to buffer capacitors, flicker-free lighting can be guaranteed even during short power interruptions.

For analogue and digital operation and direct current.
The printed circuit boards can be shortened to approx. 75 mm.
Please observe the operating instructions.



Art. Nr.: 9456

Interior lighting unit for 2-axled

passenger coaches with close coupling mechanism.
Current consumption approx. 50 mA.
Exchange bulb: 00009530



Art. Nr.: 9461

Interior lighting unit for items 8070-8074 and 8770-8773 (& variants).

Current consumption approx. 50 mA.
Exchange bulb: 00009530

Spare bulbs



Art.Nr.: 00009530

Spare bulb, for interior lighting.

With 2 connecting wires.



Art.Nr.: 00009531

Spare bulb, red

With push-in fitting, Ø 3 mm.



Art.Nr.: 00006535

Spare bulb, clear

14 V, with push-in fitting, Ø 3 mm.



Art.Nr.: 00006536

Spare bulb, clear

14 V, with lead, Ø 3 mm.

DIGITAL*

Art.Nr.: 00069530*

24 V spare bulb, clear, for interior lighting.
With 2 connecting wires.

Art.Nr.: 00066535*

24 V spare bulb, clear. With push-in fitting, Ø 3 mm.

Art.Nr.: 00066536*

24 V spare bulb, clear. With lead, Ø 3 mm.

*Advice: For simultaneous operation of both digital- and traditional D. C. vehicles, the bulbs of the D. C. vehicles should be replaced by the corresponding higher voltage bulbs for digital operation.

The PROFI coupling from FLEISCHMANN – the closest connection in N



Advantages of the PROFI-coupling:

- Soft and automatic coupling
- Solid coupling when pulling and pushing trains
- Automatic decoupling on the FLEISCHMANN decoupling tracks
- Easy removal of individual wagons from train composition is possible
- Pre-uncoupling for shunting manoeuvres true to the original

With FLEISCHMANN you can couple up lots of trains just realistically closely, because most of the wagons are fitted with the so-called slot guide mechanism. The slot-guide mechanism together with the standard N coupling as fitted

makes a noticeable difference in closing the gap between wagons. If the PROFI-couplings are fitted as well, then a real close-coupling can be achieved.



Art. Nr.: 9520

Standard coupling
with spiral centre spring and cover plate.



Art. Nr.: 9521

Standard coupling with flat centre spring and cover plate (with **long** fixing lug).



Art. Nr.: 9522

Standard coupling with flat centre spring and cover plate (with **short** fixing lug).



Art. Nr.: 9525

Standard clip-in coupling
Simply pushes into the coupling socket.



Art. Nr.: 9523

Standard coupling
for article 7368.



Art. Nr.: 9540

PROFI coupling
with spiral centre spring and cover plate.
To convert vehicles which are fitted with the standard coupling 9520.



Art. Nr.: 9541

PROFI coupling
with flat centre spring and cover plate (with **long** fixing lug).
To convert vehicles which are fitted with the standard coupling 9521.



Art. Nr.: 9542

PROFI coupling
with flat centre spring and cover plate (with **short** fixing lug).
To convert vehicles which are fitted with the standard coupling 9522.



Art. Nr.: 9545

PROFI clip-in coupling
Close-coupling to convert FLEISCHMANN vehicles which have standard coupling 9525 fitted.

50 x 9545
Bumper pack

Art. Nr.: 389545



With standard coupling 9521



With PROFI coupling 9543



Even all N vehicles without slot-guide mechanism couple up noticeably closer with PROFI coupling if the standard couplings are replaced by the PROFI couplings.

And for wagons having a length over buffers of up to 70 mm, then the PROFI-coupling 9543 is really just as good as a close-coupling.



Art. Nr.: 9543

PROFI coupling

with flat centre spring and cover plate (with long fixing lug). To convert two and three axled vehicles with a max. length of 70 mm, which are fitted with the standard coupling 9521.



Art. Nr.: 9549

PROFI coupling
for wagons of the „rolling road“.



Art. Nr.: 9570

PROFI coupling head, adjustable height.
Installation using the adapter 9571, 9572, 9573 or 9577.



Art. Nr.: 9571

Adapter for PROFI coupling head 9570 (adjustable height).
Suitable for all FLEISCHMANN vehicles fitted with couplings 9521 or 9522.
Installation together with the adjustable height PROFI coupling head 9570.



Art. Nr.: 9572

Adapter for PROFI coupling head 9570 (adjustable height).

Suitable for all FLEISCHMANN vehicles fitted with couplings 9520 and many vehicles of other manufacturers.



Art. Nr.: 9573

Adapter for PROFI coupling head 9570 (adjustable height).

Suitable for many vehicles of other manufacturers. Installation in conjunction with the PROFI coupling head 9570.



Art. Nr.: 9577

Adapter for PROFI coupling head 9570

Suitable for ICE 1 and ICE 2.



Art. Nr.: 9574

Close-coupling converter

To convert wagons without slot-guide mechanism for true close-coupling operation.
The pack contains 2 slot-guide mechanisms and 2 PROFI coupling heads 9570 (adjustable height).

Container



Art. Nr.: 910120

3 piece set: 20' tank containers

The set consists of three 20' tank containers that can be used on your model railway layout for combined traffic operations.

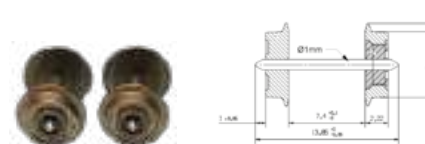


Art. Nr.: 910220

3 piece set: 20' containers

The set consists of three 20' tank containers that can be used on your model railway layout for combined traffic operations.

Wheel sets



Art. Nr.: 20023

Disc wheel set, isolated on one side

Axle length: 13.65 mm, diameter 6 mm.
Height of wheel flange: 0.9 mm. 2 pc./pack.



Spare parts

We also supply spare parts!

On www.fleischmann.de you can order the right spare parts for your models. The spare parts shop and spare parts finder is open 24 hours a day and orders are sent straight to your home.

Traction tyre sets



Art. Nr.: 948001

Suitable for diesel railcar units class V 60 (DR-Ost)
10 pc./pack.

Art. Nr.: 948002

Suitable for diesel railcar units class VT 12/612 (DB)
10 pc./pack.

Art. Nr.: 948003

Suitable for diesel railcar units class VT 11 / 601 (DB)
10 pc./pack.

Art. Nr.: 948005

Outer diameter 6.95 mm, width 1.2 mm.
10 pc./pack.

Art. Nr.: 948006

Outer diameter 8.8 mm, width 1.3 mm.
10 pc./pack.

Art. Nr.: 948007

Outer diameter 4.9 mm, width 1.2 mm.
10 pc./pack.

Art. Nr.: 948008

Suitable for diesel railcar units class VT 642 ("Desiro").
10 pc./pack.

Art. Nr.: 6518



A pair of round spare brushes with springs.

Art. Nr.: 9517



A pair of round spare brushes with springs.



Subscribe to the FLEISCHMANN-Newsletter on www.fleischmann.de and you are up to date.
Only here you will find everything about innovations, exclusive models and special series.



Fleischmann
**TRACK
SYSTEM**





Art. Nr.: 6114



Uncoupler track for manual operation
Length 100 mm. 5 pc./pack.

Art. Nr.: 6412



Flexible rack track for PROFI track
Length 200 mm. 10 pc./pack.
Flexible - to install in straight or curved tracks. Can be used from the smallest radius (R1).

Art. Nr.: 6444



Electrical plug-in motor for manually operated uncoupler track 6114

Art. Nr.: 6117



Buffer stop, with end of track indicator.
To clip onto H0 tracks at the end of sidings. Also usable on curves. 10 pc./pack.



Art. Nr.: 6438



Illuminated point lantern

to optionally retrofit points.
Suitable for the standard points 6170 / 6171,
the curved points 6174 / 6175 and
the three-way points 6157.
Illumination with maintenance-free LEDs. Power
supply independent from point. Measurement of the
point lantern socket: 19 x 10 mm.

6438

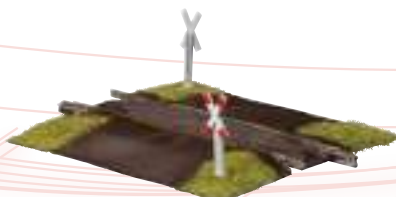


Art. Nr.: 9921



Track stencil for FLEISCHMANN H0 PROFI-track.

An absolutely essential aid for individual layout planning.
Transparent, yellow plastic, scale 1:10.



Art. Nr.: 6197

Ungated level crossing for PROFI track

With rerailer and two cross bucks.
Track length: 100 mm.



Fleischmann

TURN TABLES







**NOW BACK
IN OUR ASSORTMENT!**



Art. Nr.: 6154

Model turntable with electric drive and electric, individually-switchable track outputs, with turntable switch 6910. Length of turntable bridge 183 mm. Suitable for the H0-PROFI track and other H0-nickel-silver track systems. Rail profile height: 2.5 mm.

The turntable is a prototypical trench construction and features all the essential details in this realistic representation. The basic equipment for the turntable includes 6 exit tracks and 4 blank connectors. The exit tracks can be attached and reattached at an angle of 15° as required, and can be extended using turntable supplement set 6155 to a total of 24 track connections.

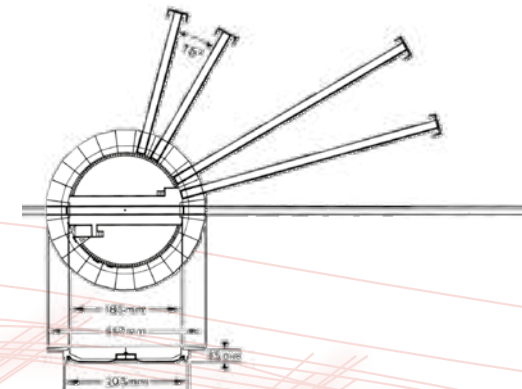
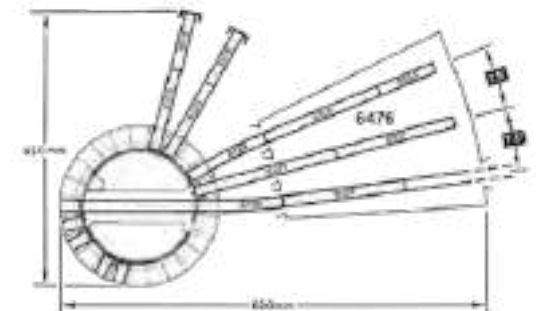
Fleischmann has developed a H0 model based on a 16-metre turntable prototype. This turntable has the advantage that it does not require too much space, and therefore also fits onto small systems. In spite of this, locomotives with an axle spacing of up to 170 mm can be rotated, even though the length of the locomotives is in part substantially larger due to the buffers.

The “intelligent” turntable: The model turntable feeds the driving current into the system via the turntable bridge. When you select the turntable bridge side which should conduct the current using turntable switch 6910, then the turntable “thinks”. It only feeds the track with current which is connected with the selected side of the turntable bridge. Using this “intelligent” turntable, a locomotive can be de-energised and parked on a track, and at the same time a locomotive can be driven on the opposite track, which is connected to the turntable bridge.

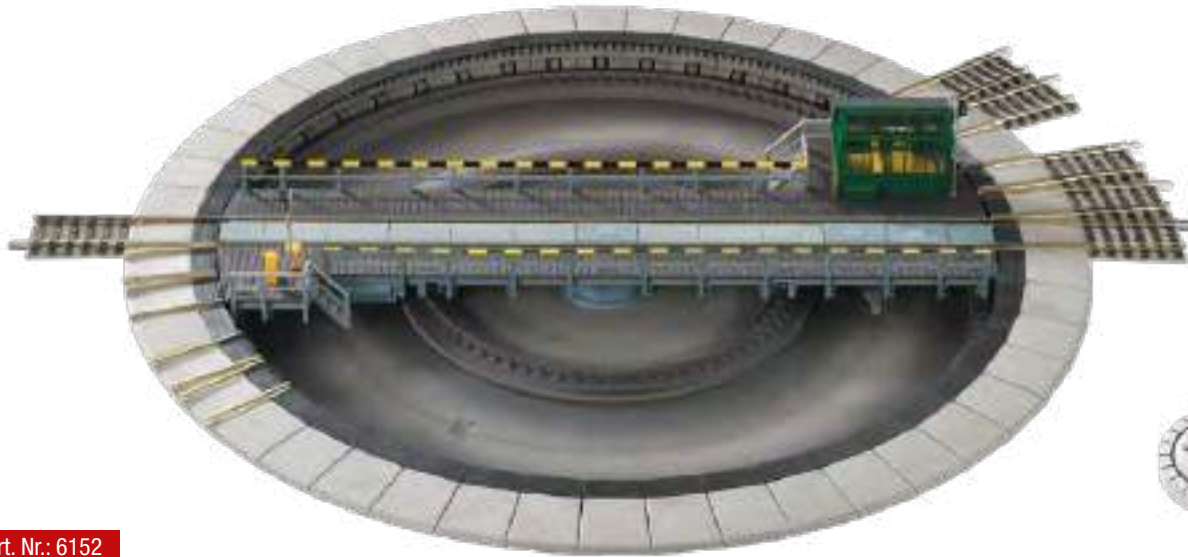
Art. Nr.: 6155



Extension set for the smaller turntable 6154
The set contains 3 exit tracks and 3 over-run ends.



TURNTABLES

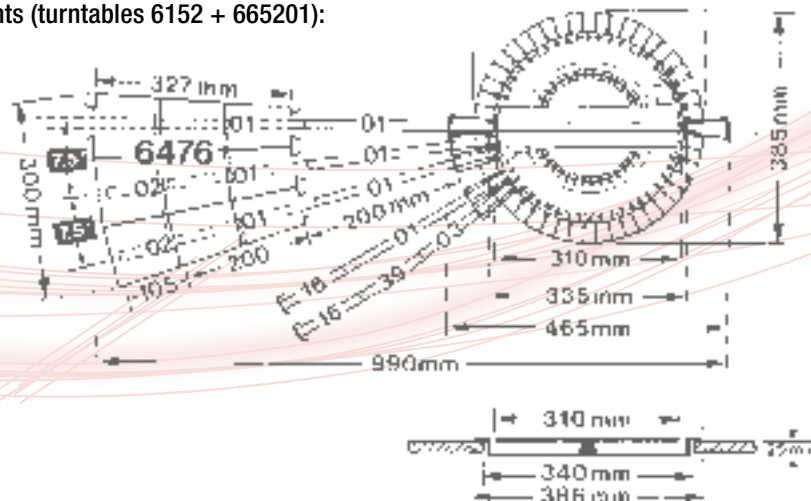


Art. Nr.: 6152

Electrically operated turntable, with electrically switchable track exits using the turntable control switch 6910. Length of the turning bridge: 310 mm.

The turntable is prototypically mounted in a recess and fitted with accurate details.

Measurements (turntables 6152 + 665201):



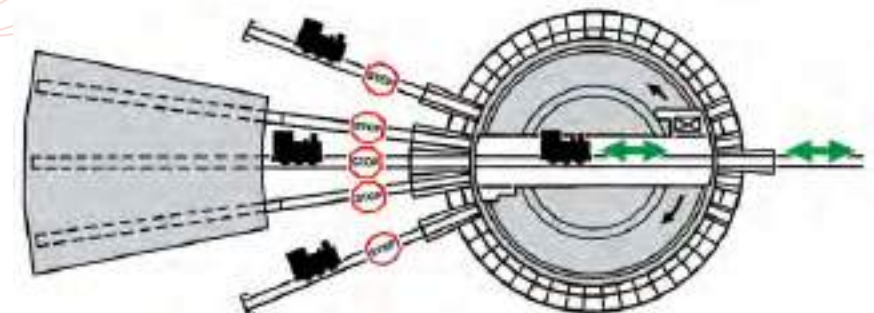
Art. Nr.: 6153

Extension set for the PROFI track turntable 6152

for 2-rail operation with nickel silver tracks.
The set contains 3 exit tracks and 3 over-run ends.

The „thinking“ turntable (6152)

The „thinking“ turntable: using the switch 6910, will determine the rotation direction in order to access the desired exit. The power feed is activated within the turning bridge. The power to the track exit with which the turntable is lined up, either left or right, can be fed with power using the switch 6910. All other track exits remain isolated (even those opposite each other). A maximum of 48 track exits can be controlled and electrically operated without the need for any additional wiring.



The „thinking“ turntable

TURNTABLE/TURN-CONTROL



Art. Nr.: 665201 ~

Electrically operated turntable for 3-rail AC system, with turntable control switch 6909.

The turntable is prototypically mounted in a recess and fitted with accurate details. As delivered, there are 6 exit tracks and 4 over-run ends.

The exit tracks can be unclipped and repositioned at an angle of 7,5° as desired, or extended using the turntable extension set 665301 right up to the complete 48 exits.

Fits to locomotive roundhouse 6476.



Extension set for the AC turntable 665201

For neutral conductor AC driving operation with nickel-silver tracks.

Content: exit tracks and 3 over-run ends.

Art. Nr.: 665301

TIP: You can find many useful guidelines and technical information on our website www.fleischmann.de > Service > Downloads > Further Downloads > Technology Downloads



TURN-CONTROL

Turntable Controller with track pre-selection

For analogue and digital operation

Art. Nr.: 6915

TURN-CONTROL is suitable for analogue and digital control of the turntables from the FLEISCHMANN range.

TURN-CONTROL is suitable for operation with 2-rail DC operation, 3-rail AC operation, and will also operate with all digital systems - DCC or FMZ.

Using TURN-CONTROL, no changes or alterations to the turntable are necessary.

Advantages:

- An LCD display gives a visual indication of the setting of the turntable bridge, the location of the track exits installed and the active track exit, together with additional functions.
- Symbols of the active functions give it a simple, user-friendly operation. Each track exit can be individually exactly controlled.
- By pressing a button, a comfortable turning of a locomotive is possible.
- Because the polarity change is controlled by the switch, when rotating through 360°, the turntable is protected against short circuit.



Turntable switch

To operate the electric turntables 6052 C, 6152 C, 6154 C with individually switchable track exits.

Ø 63 mm

Art. Nr.: 6910



Art. Nr.: 6476

Locomotive Roundhouse (kit)

Suitable for use with the turntables 6152 and 665201. Locomotive stalls set at 7.5° angles with 8 opening doors. The doors are operated by locos leaving and entering the shed. Several roundhouse kits can be set up alongside each other to make up a large shed. One set of doors is set at the rear of the shed to run straight through if desired.



Tip for modelmakers!:
Light duct accessory No. 6459 will fit into the loco shed 6476.



Art. Nr.: 6434

„Click“ metal rail joiners

To electrically and mechanically connect a rail track assembly. Can not be used for 6106/6109.
20 pc./pack.



Art. Nr.: 6436

Metal rail joiners

Transitional rail joints from assortment 6000 to assortment 6100. To connect the flexible tracks 6106/6109.
20 pc./pack.



Art. Nr.: 6433

Isolating rail joiners

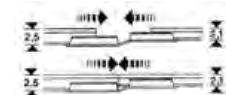
For electrical rail cut-off. Can be used on any layout section. The mechanical connection is maintained.
12 pc./pack.



Art. Nr.: 6437

Transitional rail joints

Ideal for connecting FLEISCHMANN PROFI tracks to ROCO LINE tracks.
To connect Scale H0 tracks of 2.5 mm rail profile height with tracks of 2.1 mm rail profile height.



Art. Nr.: 6430

Track Feed Clips (2-pole)

Track feed clips (2 poles) can only be connected to the rail connectors on the corresponding rail joint. Saves a siding.



Art. Nr.: 6431

Track Feed Clip (1-pole)

Track feed clips can only be connected to the rail connectors on the corresponding rail joint such as in front or behind the electrical cut-off point or with signal circuits.



Art. Nr.: 6432

Switch contact rail, 1-pole

To trigger off switching impulses for turnouts, signals etc. with driving locomotives. Can be used on any section of the railway layout.



Art. Nr.: 9401

Connecting wire with flat contact springs

For train control operation of semaphore signals.



Art. Nr.: 942601

Switching magnet, angular

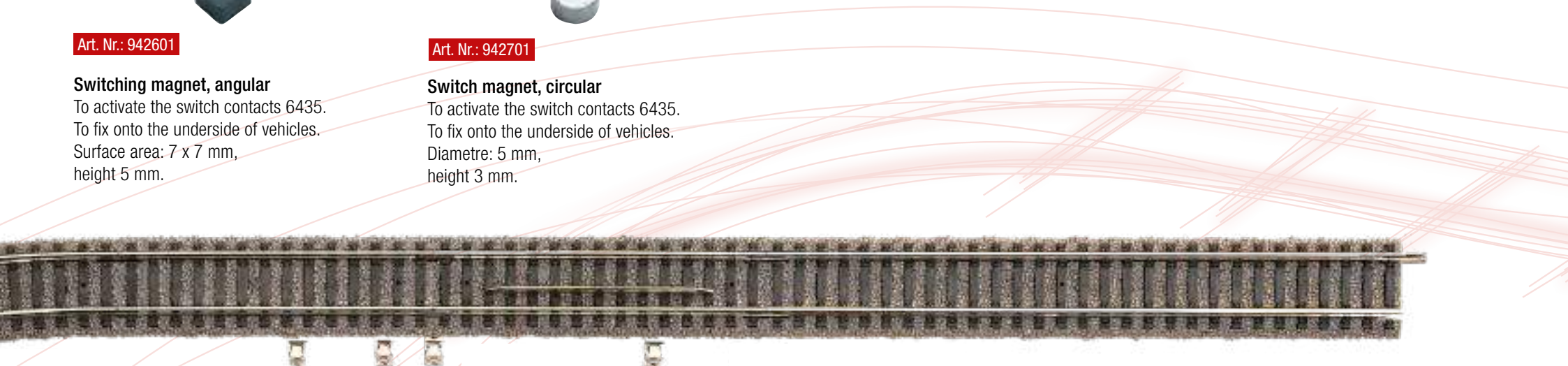
To activate the switch contacts 6435.
To fix onto the underside of vehicles.
Surface area: 7 x 7 mm,
height 5 mm.



Art. Nr.: 942701

Switch magnet, circular

To activate the switch contacts 6435.
To fix onto the underside of vehicles.
Diameter: 5 mm,
height 3 mm.





Art. Nr.: 6410

Wood screws

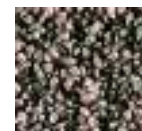
To fasten tracks, rackrails, signals, relays and signal box parts.
Content: 144 pieces, Diameter: 1.4 mm
Length: 8 mm



Art. Nr.: 9409

Track fixing nails

In a plastic container.
Contents: approx. 500 pieces
Length: 7 mm



Art. Nr.: 6479

Ballast scatter material for PROFI tracks

To ballast the track beds.
Content: 150 g



Art. Nr.: 9479

Track ballast

Finely grained ballast scatter to go between tracks.
Content: 150 g



Art. Nr.: 6595

Track cleaning rubber

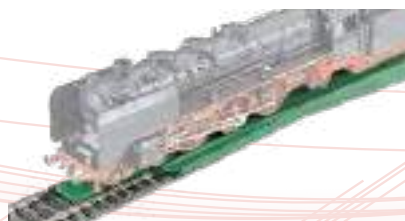
For manually cleaning the rail surfaces and wheels.



Art. Nr.: 6599

FLEISCHMANN lubricating oil

For lubricating all vehicles.
Content: 20 ml



Art. Nr.: 6554

DB AG logos for ICE vehicles
12 adhesive labels.

Art. Nr.: 6480

Rerailer

Rerailer for locos and wagons (without vehicle shown).

Art. Nr.: 6555

Coach numbers for ICE middle coaches.
The article matches the traction units 4450. Each unit has three adhesive labels for 4441-4449.









Art. Nr.: 6445

Interior lighting unit
for 6-axled passenger coaches.
Spare bulb: 00009530



Art. Nr.: 6452

Interior lighting unit
for express coaches.
Spare bulb: 00006535



Art. Nr.: 6454

Interior lighting unit
for passenger coaches of length
282 mm.
Spare bulb: 00009530



Art. Nr.: 6455

Interior lighting unit
for the local control cab coach "modus".
Spare bulb: 00009530



Art. Nr.: 6458

Interior lighting unit
for passenger coaches with overall length
264 mm.
Spare bulb: 00009530



Art. Nr.: 6469

Interior lighting unit
for passenger coaches with over-
all length approx. 130 mm.
Spare bulb: 00006535



Art. Nr.: 6459

Light dispenser, assembly set
Spare bulb: 00009530
Tip for modelmakers: No. 6459 fits
also into the loco shed 6476.



SPARE BULBS

Spare bulbs



Art. Nr.: 00006530

Spare bulb, clear
14 V, E 5, with screwed socket.



Art. Nr.: 00006532

Spare bulb, red
14 V, with push-in fitting, Ø 3 mm.



Art. Nr.: 00006533

Spare bulb, green
14 V, with push-in fitting, Ø 3 mm.



Art. Nr.: 00006534

Spare bulb, yellow
14 V, with push-in fitting, Ø 3 mm.



Art. Nr.: 00006535

Spare bulb, clear
14 V, with push-in fitting, Ø 3 mm.



Art. Nr.: 00006536

Spare bulb, clear
14 V, with lead, Ø 3 mm.



Art. Nr.: 00006538

Spare bulb, clear
8 V, with push-in fitting, Ø 3 mm.



Art. Nr.: 00006539

Spare bulb, red
8 V, with push-in fitting, Ø 3 mm.



Art. Nr.: 00009530

Spare bulb, for interior lighting
With 2 connecting wires.



Art. Nr.: 00009531

Spare bulb, red
With push-in fitting, Ø 3 mm.

DIGITAL*



Art.Nr.: 00066530*

Spare bulb, clear
24 V, with screwed socket, Ø 5 mm.

Art.Nr.: 00066531*

Spare bulb, clear
24 V, with push-in fitting, Ø 5 mm.

Art.Nr.: 00066532*

Spare bulb, red
24 V, with push-in fitting, Ø 3 mm.

Art.Nr.: 00066533*

Spare bulb, green
24 V, with push-in fitting, Ø 3 mm.

Art.Nr.: 00066534*

Spare bulb, yellow
24 V, with push-in fitting, Ø 3 mm.

Art.Nr.: 00066535*

Spare bulb, clear
24 V, with push-in fitting, Ø 3 mm.

Art.Nr.: 00066536*

Spare bulb, clear
24 V, with lead, Ø 3 mm.

Art.Nr.: 00069530*

Spare bulb, for interior lighting
With 2 connecting wires.

*Advice:

For simultaneous operation of both digital and traditional D.C. vehicles, the bulbs of the D.C. vehicles should be replaced by the corresponding higher voltage bulbs for digital operation.







Die FLEISCHMANN-PROFI coupling



Advantages of the PROFI-coupling:

- Tight coupling (close coupling) true to the original
- Soft and automatic coupling
- Solid coupling when pulling and pushing trains
- Automatic decoupling on the FLEISCHMANN decoupling tracks
- Easy removal of individual wagons from train composition is possible
- Pre-uncoupling for shunting manoeuvres true to the original

The perfect pre-uncoupling for great shunting maneuvers:

Pre-uncoupling means that you cannot only uncouple a wagon on a decoupling track and leave it standing there, but first pre-uncouple and then push the wagon to another point of your model railway layout to station it without the couplings connecting again.

Clip-in couplings



Art. Nr.: 6515

Plug-in PROFI coupling
For vehicles with NEM 362 coupling socket.



Art. Nr.: 386515

Plug-in PROFI coupling (bulk pack)
Content: 50 pc. 6515
For NEM 362 coupling socket.



Art. Nr.: 6514

Plug-in PROFI coupling
For use on rack and pinion locos and coaches with slot-guide mechanism on rack track.



Art. Nr.: 6509

Plug-in PROFI hook coupling
For vehicles with NEM 362 coupling socket **without** slot-guide mechanism.



Art. Nr.: 6510

Plug-in PROFI hook coupling
For vehicles with NEM 362 coupling socket, with slot-guide mechanism.



Art. Nr.: 6511

"Swallow tail", plug-in exchange hoop coupling
For vehicle with NEM 362 coupling socket.

Digital PROFI coupling

Art. Nr.: 651581



Retrofit kit digital PROFI coupling (NEM 652) incl. DCC-AC decoder, with feedback function

Content: 1 Multiprotocol special decoder for AC and DC versions and 2 couplers. The couplers can only be properly controlled with this decoder. The use of any different decoders can cause damages to the couplers. Automatic driving current recognition Motorola/DCC or analog AC/DC.
Automatic driving level recognition 14/28/128 levels.

Button couplings



Art. Nr.: 6517

PROFI lug-fitting coupling



Art. Nr.: 6521

Lug-fitting coupling



Art. Nr.: 6524

Exchange coupling with lug fitting (hoop coupling)



Slot couplings



Art. Nr.: 6516

PROFI slot coupling



Art. Nr.: 386516

PROFI slot coupling (bulk pack)
Content: 50 pc. 6516



Art. Nr.: 6520

Slot coupling



Art. Nr.: 6523

Exchange coupling with rivet and slot fitting (hoop coupling)



Art. Nr.: 6526

Spare coupling with rivet and slot fitting For locos 4232, 4234, 4350, 4380, 4381, 4933 (1st series).



Art. Nr.: 6527

Spare coupling with rivet and slot fitting For railcar: 4430 (1st series, front end).



Art. Nr.: 6528

Exchange coupling with rivet and slot fitting For vehicles as per 6526/6527.



Art. Nr.: 6570

PROFI coupling head
To slide onto the coupling mounting 6575 and 6576 and adapter 6572. Adjustable coupling height.



Art. Nr.: 6572

Adapter for PROFI coupling head 6570 (adjustable height)
Suitable for all vehicles fitted with slot coupling 6516 or 6520.



Art. Nr.: 6575

Coupling mounting for PROFI coupling head 6570 For ROCO vehicles fitted with coupling 40273.



Art. Nr.: 6576

Coupling mounting for PROFI coupling head 6570 For fitting to older ROCO vehicles.



Art. Nr.: 6522

Coupling centre spring
To automatically realign the coupling into the central position. Only for vehicles **without** slot-guide mechanism.



Art. Nr.: 6574

Close-coupling conversion set
To fit to older wagons which do not have close-coupling. 2 per pack, including the coupling head 6570 (adjustable height).

Exchange wheel sets



Art. Nr.: 6560

Exchange wheel set for AC operation

Axle length: 24 mm. Diameter 11 mm. Not isolated. To convert all 2- and 3-axled Fleischmann wagons fitted with disc wheels, as well as all 4-axled wagons with a length of 282 mm for use on 3-rail, centre pick up AC voltage tracks.



Art. Nr.: 6561

Exchange wheel set for AC operation

Axle length: 25 mm. Diameter 11 mm. Not isolated. To convert all 4-axled Fleischmann wagons fitted with disc wheels (except wagons which should be fitted with 6560) for use on 3-rail, centre pick up AC voltage tracks.



Art. Nr.: 6562

Exchange spoked wheel set for AC operation

Axle length: 23,5 mm. Diameter 11 mm. Not isolated. To convert Fleischmann coaches with spoked wheels for use on 3-rail, centre pick up AC voltage tracks.



Art. Nr.: 6563

Exchange double spoked wheel set for AC operation.

Axle length: 24 mm. Diameter 11 mm. Not isolated. To convert all Fleischmann goods wagons fitted with spoked wheels for use on 3-rail, centre pick up AC voltage tracks.

More wheel sets from our spare part assortment: www.fleischmann.de >products >exchange wheel sets

Traction tyre sets



Art. Nr.: 648001

Outer diameter 11.6 mm, width 2 mm.
10 pcs/pack

Art. Nr.: 648002

Outer diameter 13.6 mm, width 2 mm.
10 pcs/pack

Art. Nr.: 648003

Outer diameter 10.6 mm, width 2 mm.
10 pcs/pack

Art. Nr.: 648004

Outer diameter 13.6 mm, width 1.3 mm.
10 pcs/pack

Art. Nr.: 648005

Outer diameter 10.6 mm, width 1.3 mm.
10 pcs/pack

Art. Nr.: 648006

Outer diameter 9.9 mm, width 1.3 mm.
10 pcs/pack

Art. Nr.: 648007

Outer diameter 16.4 mm, width 1.3 mm.
10 pcs/pack

Art. Nr.: 648008

Outer diameter 16.4 mm, width 2 mm.
10 pcs/pack

Art. Nr.: 648009

Outer diameter 8 mm, width 1.3 mm.
10 pcs/pack

Art. Nr.: 648010

Outer diameter 11.5 mm, width 1.5 mm.
10 pcs/pack

Art. Nr.: 648011

Outer diameter 8 mm, width 1.5 mm.
10 pcs/pack. Suitable for loco class 36 (DC)

Art. Nr.: 648012

Outer diameter 9.3 mm, width 1.5 mm.
10 pcs/pack. Suitable for loco class 36 (AC)

Art. Nr.: 6518



A pair of spare brushes and springs.

Art. Nr.: 6519



A pair of spare brushes and springs.





Digital for beginners, Edition 1.1 - German



Art. Nr.: 81385

What is a digital model railway and how can it be used best? This manual, edited by experts, answers the most important questions on the topic "How to digitize your own model railway layout". It provides both beginners and advanced users with valuable tips and tricks.

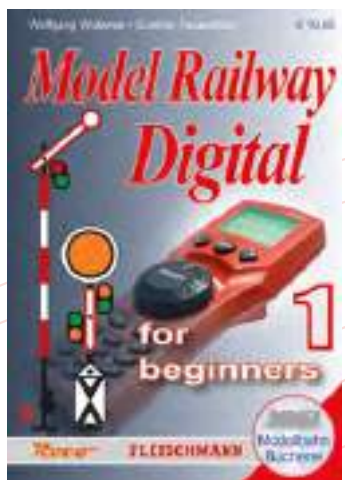
Digital for beginners, Part 2.1 - German



Art. Nr.: 81386

If you are driving and controlling digitally with the Z21 multiMAUS, you already know the advances of the ROCO/FLEISCHMANN digital system. But how to enlarge your Starter Set, activate the wireless Z21 WLANMAUS, use tablet or smartphone for control or how to update your control units etc.

Digital for beginners, Part 1 - English



Art. Nr.: 81391

This manual in English language, edited by experts, answers the most important questions on the topic "How to digitize your own model railway layout". Layout construction, programming and other functions are shown and explained here step by step.

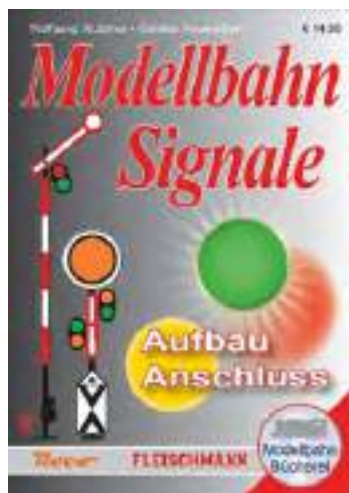
Digital for beginners, Part 3 - German



Art. Nr.: 81393

In the digital age, the computer can reduce all manual work. If you still are operating your trains manually and set your points by mouse click then this book is just the right thing for you. We will help you to set up the interlocking systems and to create the connection with your layout.

Signals - Setup and connection - German



Art. Nr.: 81392

This brochure explains the main electrically-powered model signals, shows you the prototypical installation location and gives specific tips on how to set them up for analog or digital switching, from block diagrams to the switching signals and rail crossings.

Operate and switch for beginners - German



Art. Nr.: 81389

This brochure will help you to operate and connect your model railway layout. Locomotives, trains, switches, signals, gates and all sorts of accessories – everything is kept moving, everything is put into operation by electricity. Step by step and almost playfully you will learn how to face the electrical challenges of your layout and to solve all your problems.

Building and maintenance for beginners - German



Art. Nr.: 81388

Q2/2023

There is neither a patent recipe, nor a quick solution when you want to build your model railway layout at the weekend. We are happy to support you with many practical examples and tricks and hints, so you can easily build your individual layout. We are proud to help you to understand the technical conditions and how to cope with the maintenance of your vehicles and putting them into operation.

Track Manual FLEISCHMANN N gauge (for ballasted tracks) - German



Art. Nr.: 81399

The track plan manual explains the geometry of the ballasted tracks of FLEISCHMANN in scale N. Many track layouts and expansion options are shown in details. All featured track layouts are provided with parts lists.

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You can order the spare parts suitable for your models on **www.fleischmann.de**.
The spare parts shop and spare parts finder are open 24/7 and deliver directly to you!



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IMPRINT

Published by:

Modelleisenbahn GmbH / Plainbachstrasse 4 / 5101 Bergheim, Austria
www.fleischmann.de

Photo credits:

Modelleisenbahn GmbH, Fleischmann-Archiv, Markus Huber, Michael Zirn Photography GmbH, Hannes Auer Fotografie GmbH, Heinz Peter Gogg as well as other photographers that are credited next to the pictures.

Printing and processing:

Druckerei Berger, Wiener Straße 80, 3580 Horn, Austria

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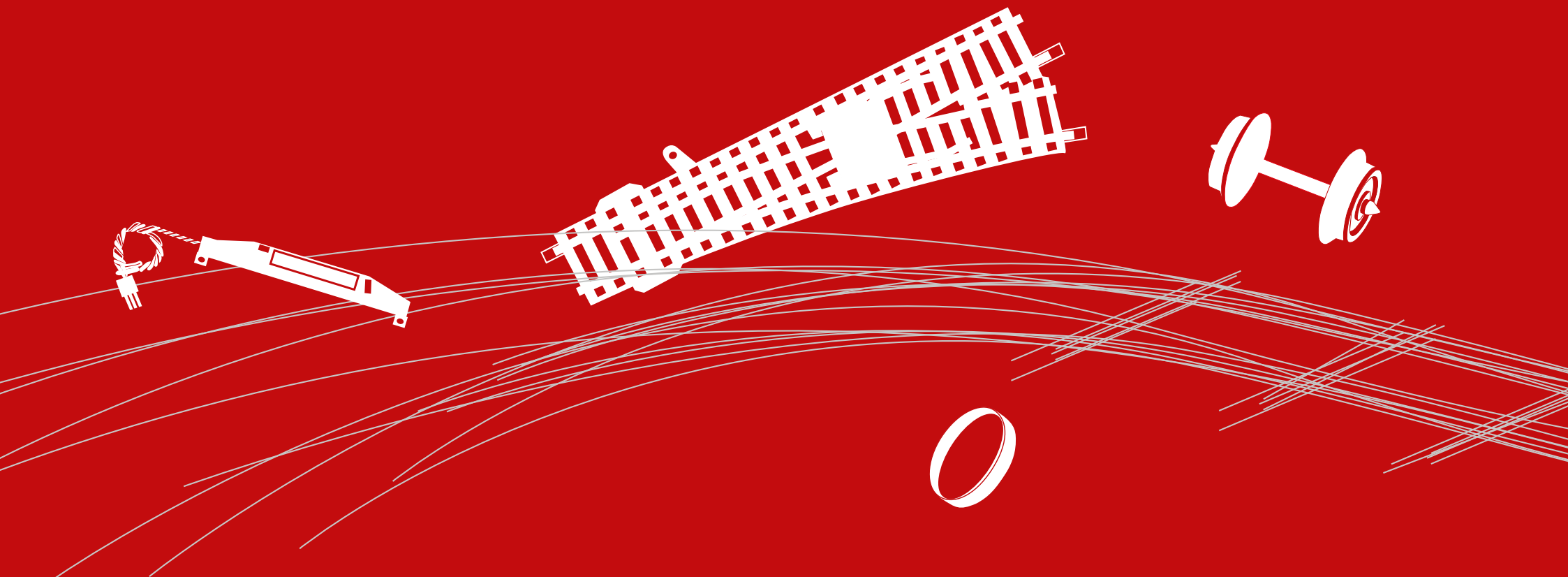
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991931



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