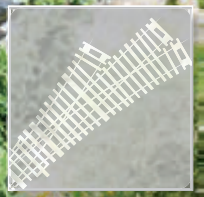
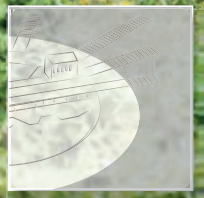
N | HO

ACCESSORIES

CREATE YOUR PERFECT MODEL RAILWAY EXPERIENCE





FLEISCHMANN

TRADITION AND PASSION

www.fleischmann.de

Foto: M. Leidel

Dear FLEISCHMANN friends,

the FLEISCHMANN programme has everything a railway fan could want. Whether you're looking for an epoch I steam engine, a classic epoch IV diesel locomotive or modern vehicles like the Vectron or ICE, FLEISCHMANN has it all.

The unadulterated fun also includes a reliable range of replacement parts, accessories, platforms and the latest steering technology, such as the Z21 system. The catalogue provides an overview of this wide spectrum.

Our customer service team is available for any questions you might have. Your specialist retailer can always provide you with competent advice about deliveries and technical issues.

Have fun browsing!

Your FLEISCHMANN team

CONTENTS

Digital

Z21 system 5–14

Decoder scale N 16–17
Decoder scale H0 18–19

Analogue

Transformers, switching accessories 20–21

Accessories in scale N

N Track system **with ballast bed**: 24–36
Track sets 26–29
Tracks 30–33
Turntable, accessories 34–36
N Track system **without ballast bed**: 38–43
Tracks 38–42
Accessories 43
Accessories for layouts 44
Interior lightings 45
Couplings 46–47
Accessories for vehicles 48

Accessories in scale H0

H0 PROFI Track system 50–59
Track 50–55
Track sets 56–57
Turntables, accessories 58–59
Accessories for layouts 60–61
Interior lightings 64–65
Couplings 66–67
Accessories for vehicles 68

Manuals 70–71
What do I find where? 72–73
Imprint 74

Foto: M. Leidel

Digital control centre Z21

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.

The Z21 is a complete Plug & Play System consisting of:

- Digital control centre Z21
- Z21 app for control of all system components
- Power supply
- WiFi router

Z21
www.z21.eu

Art. Nr.: 10820
Art. Nr.: 10822 US version

Z21 multiMAUS

The Z21 multiMAUS is a digital control centre that enables you to control your trains, use digital functions, switch points and signals and much more. The clear design in combination with easy operation handling makes the 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-character names
- Up to 29 functions can be activated per locomotive
- Up to 1024 magnetic items switchable
- Write and read configuration variables (DCC CVs)

Art. Nr.: 10810 Art. Nr.: 10813

Z21 WLANMAUS

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 2048 magnetic items switchable

Further information: **www.z21.eu**

The Z21 system
for novices and experts

	z21 start Available in start set without WiFi Package	Combination with z21 WiFi Package 10814/10818 	z21 Available in start set incl. WiFi router	Z21 10820 incl. WiFi router
Plug & play system	☑	☑	☑	☑
2 X Bus connection on the front side	☑	☑	☑	☑
1 X Bus connection on the backside	☐	☐	☐	☑
For digital DC and AC locomotives (DCC and MM)	☑	☑	☑	☑
POM programming, POM readout, CV programming and CV readout	☑	☑	☑	☑
B-Bus and R-Bus	☑	☑	☑	☑
Configurable with Maintenance	☑	☑	☑	☑
Regulation with comfortable Z21 app and diverse hand held controller	☐	☑	☑	☑
Photorealistic driver's cab on Android table and iPad	☐	☑	☑	☑
LocoNet and sniffer Bus connection	☐	☐	☐	☑
CAN Bus - allows comfortable configuration of new Z21 components	☐	☐	☐	☑
Adjustment options for track voltage	☐	☐	☐	☑
Separate programming track output with Zimo decoder update procedure	☐	☐	☐	☑

z21 WiFi Package

FOR z21 start

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.

z21 unlock code

FOR z21 start

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.

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.: 10851

Suitable power supply 54 W (see page 10)

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 app or PC via CAN

Art. Nr.: 10851

Suitable power supply 54 W (see page 10)

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 track outputs
- Connections via CAN bus, B bus, CDE bus
- Configuration and update simply by app or PC via CAN

Art. Nr.: 10857

Suitable power supply 120 W (see page 10)

Photomontage

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.: 10850

Suitable power supply 36 W (see page 10)

Z21 DETECTOR

Art. Nr.: 10808

- 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 and update simply by app or PC

Z21 DETECTOR x16

Art. Nr.: 10819

- 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

Z21 multi LOOP

Art. Nr.: 10797

- 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

* RailCom is a registered trademark of Lenz Elektronik GmbH

Art. Nr.: 10789

Z21 CDE Booster Adapter

The Booster Adapter allows to connect up to 15 boosters with CDE interfaces to the booster bus. An X-bus port is provided to supply voltage to the adapter. Status LEDs display the 12-V supply as well as an active CDE end stage; besides, the adapter has an overcurrent or short-circuit protector at the CDE output.

The booster adapter can be used on the following central units or amplifiers:

- Digital amplifier (10764)
- multiZENTRALE^{pro} (10832)
- z21 and z21 start
- Z21 (10820, 10822)

Art. Nr.: 10775

8-fold turnout decoder DCC

The turnout decoder can switch up to eight turnouts. If light signals are used, one needs one double-spool relay (Item no.: 10019) per signal. All outputs are short-circuit proof. Overall, the decoder can be loaded with up to 2 Ampere; this also applies to every single connection for the period of one second!

The address range is between 1 and 256.
The connection is made with two cables onto the two rail profiles.
If a high output is required, of course it is possible to create one's own supply network, which is supplied out of a booster of its own.

Art. Nr.: 10851

Switching power supply 54 Watts

Power supply for the digital control centre Z21 (10820), digital amplifier (10764), multiZENTRALE^{pro} (10832) und digital booster 10765).

- Overload fuse, short circuit proof, back feed protection

Technical data:

Input voltage: 230 V ~
Output voltage: 20 V =
Output current: 3 A

Art. Nr.: 96308 US version

Switching power supply 18V/4A

Art. Nr.: 10857

Switching power supply 120 Watts

- Short-circuit protection against overload, overvoltage and overtemperature
- Perfect with the Z21 dual BOOSTER (10807)

Technical data:

Input voltage: 100–240 V ~
Output voltage: 20 V =
Output current: 6 A

Art. Nr.: 10850

Switching power supply 36 Watts

- Power supply for the Z21 CAN HUB (10804) and z21 start
- Overload fuse, short circuit proof, back feed protection

Connection cable for digital components

Art. Nr.: 10754

Highly flexible 6-pole spiral cable
Connection between multiMAUS 10810 and 10820, 10822, 10815, 10764.
Suitable for the FLEISCHMANN multiMAUS from the digital Starter Sets.
Length approx. 2 m

Art. Nr.: 10756

6-pin data bus replacement cable
The cable is a replacement cable for the Lokmaus 10760, 10792, multiMAUS 10810, FLEISCHMANN multiMAUS, turnout keyboard 10770 or RouteControl 10772.
Length approx. 2 m

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 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.

Art. Nr.: 10764

Digital amplifier

The amplifier provides two direct connections ('master' & 'slave') for a multiMAUS and, for example, another mouse. The amplifier prepares the 'Master mouse' data for running and switching operation.
50 VA power in combination with transformer 670601, 10851.
The track output delivers 3.2 A.
Dimensions 115 x 122 x 40 mm

Art. Nr.: 10765

Digital booster

Additional amplifier to 10764 for the supply of larger systems. The 10764 amplifier should not be used as a booster for safety reasons. Power max. 3.2 A. A maximum of four boosters are used per system, or more in combination with the brake generator 10779. Power 50 VA in conjunction with transformer 670601 or 10851. Maximum current 3.2 A at the track exit.

Art. Nr.: 10753

CAN BUS Cable
For connecting Z21 CAN devices.

Art. Nr.: 136100

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

* RailCom is a registered trademark of Lenz Elektronik GmbH

All advantages at one glace

- Wireless controlling via tablet, smartphone, and the WLANMAUS
- High-capacity administration for a large rolling stock (up to 9999 locomotive and 2048 turnout adresses)
- Open multi-protocol centre supporting DCC and Motorola® formats
- Upgrade for already existing digital layouts through downwards-compatibility, i.e. 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

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 Re 4/4 up to NS 1200, 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.

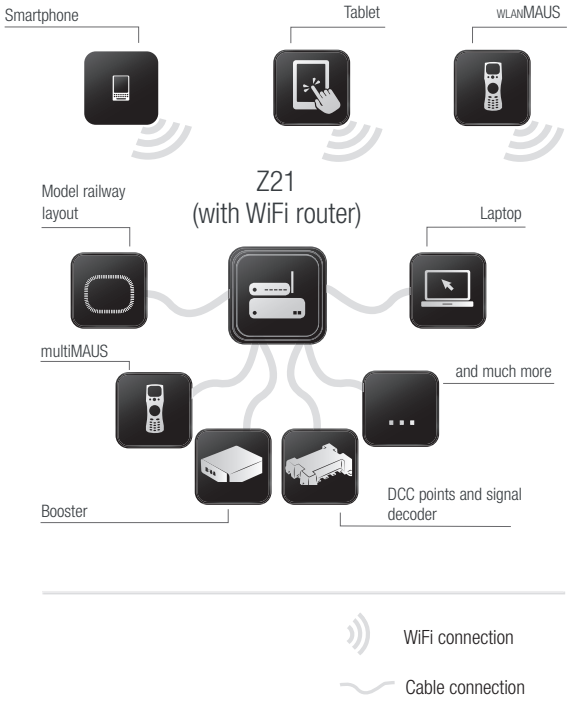
① Main switch
② Locomotive brake
③ Car brake
④ Direction switch
⑤ Whistle
⑥ Emergency stop
⑦ Train front light
⑧ Fan
⑨ Pantograph
⑩ Brake line pressure

Driver's cab of NS 1200

Driver's cab of Re 4/4

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.

* RailCom is a registered trademark of Lenz Elektronik GmbH

Z21 APP

Just by optimizing and updating the already known and well-proven Z21 app, you will discover many new functions and possibilities, which will allow you to create and experience your digital model railway world in even more exiting ways.

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 (such as, e.g., locomotive address, speed levels, locomotive functions and maximum speed).

In addition the Z21 system also supports automatic synchronisation with multiple input devices (such as, e.g., multiMAUS and Z21 app). This opens up the path to your locomotive and model railway enjoyment.

Tablet view

Smartphone view

Download from the app store for iOS or in Google Play for Android!
The app is available as a free download and can also be tested without the Z21 system.

Data: Basic data of the locomotive such as name, pictures, address and decoder type

There is a choice of many symbols

Additions are made via the locomotive database: All Roco sound models after 2015 can be imported

Easy customization of the functions and short description

- DCC and Motorola** formats individually adjustable for each locomotive and magnetic article
- Read out and get feedback of locomotives via RailCom*
- Save and reload database and layout with the import- and export-function
- Wireless controlling via tablet and smartphone and the WLANMAUS
- High-capacity administration (up to 9999 locomotive and 2048 turnout adresses)

Create and administer system

Zoomable grid for easy sorting

Simple creation of your platform arrangement

Simple connection/docking of the control centre elements

To make adding your models even easier and more convenient, the Z21 app provides you direct access to the ROCO/FLEISCHMANN locomotive database. Here you can simply enter the article number and automatically import all information, incl. model picture, in your personal Z21 app database.
The Z21 app also makes it very easy for you to create a signal box to suit your model system, and takes into account all relevant accessories (such as, e.g., trade occupied sensors, double-diamond crossings, light signals, etc.). Thanks to the integrated Drag & Drop function, as well as simple connection or docking of the control centre elements, even complex platform configurations are realized easily.

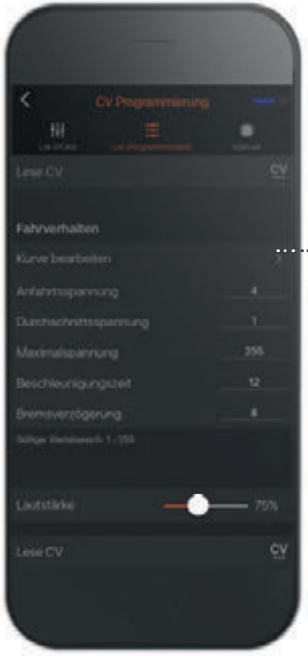
* RailCom is a registered trademark of Lenz Elektronik GmbH

** Motorola is a registered trademark of the Motorola Inc., Schaumburg Illinois., US.

Z21 APP

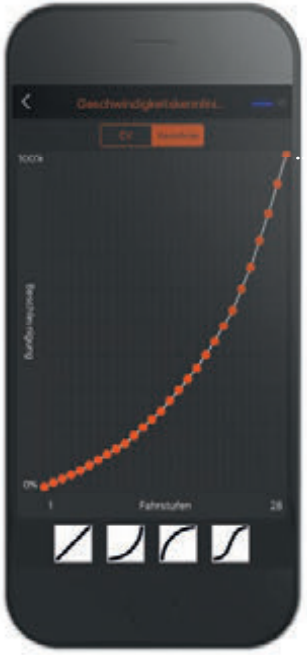
Selection and configuration of accessories

Suitable for the majority of ROCO/FLEISCHMANN decoders



Settings and live data of the Z21

Automatic download of characteristic curves and subsequent evaluation. Graphical representation in plain text



The Z21 app also allows CV programming to optimize the running behaviour of your locomotives.
Models which are already equipped with a RailCom* compatible ZIMO decoder also allow innovative CV programming using POM. This allows you to directly address the relevant decoder and read out live. The example is especially helpful when customizing the locomotive driving characteristics (such as, e.g., starting voltage, acceleration, and braking behaviour, as well as the sound decoder volume). When doing so, the relevant characteristic curves can be automatically downloaded, evaluated, and processed graphically.

A programming track, as well as the constant repositioning of your locomotives is therefore unnecessary. With decoders or RailCom* you can of course always revert to traditional CV programming, which the innovative programming help also offers. A new feature for the CV programming is the direct display of the relevant bits, which is a particulary helpful during complex programming, such as, e.g., function mapping.

* RailCom is a registered trademark of Lenz Elektronik GmbH

Foto: M. Leidel

Art. Nr.: 685404

Decoder with feedback capability, with leads and 6-pole plug (NEM 651)

Decoder specifications:
Dimensions: 14 x 9 x 2,5 mm,
Lead length approx. 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

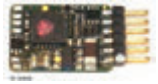
Art. Nr.: 685504

Decoder with feedback capability, with leads and 6-pole 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.: 685305



Decoder with feedback capability, with integrated 6-pole plug (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

Decoder with feedback capability, with integrated 6-pole plug (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

For further technical data please see data sheet of the article. (Downloads)

* RailCom is a registered trademark of Lenz Elektronik GmbH

Photo: Peter Stoeß

Art. Nr.: 686201

Decoder with feedback capability, with leads and 8-pole 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

Decoder with feedback capability, with Next18 interface (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 characteristics: DCC, MM, SUSI, RailCom*, NMRA, ZIMO function mapping
and much more.

Corresponds to: ZIMO MX618N

Art. Nr.: 685602

Miniature sound decoder with feedback capability, with Next18 interface (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 characteristics: DCC, MM, SUSI, RailCom*, NMRA, ZIMO Function mapping and much more.

Corresponds to: ZIMO MX658N18

Art. Nr.: 687701

Miniature sound decoder with feedback capability, with 6-pole plug (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

* RailCom is a registered trademark of Lenz Elektronik GmbH

Speaker set

Art. Nr.: 10889

With this speaker set you can retrofit sound feature. Complete set with sound box and connection cables.
Dimensions: 10 x 15 x 9 mm

The new generation of feedback decoders

The characteristics of the locomotive decoders 10894, 10895 and 10896:

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.

The characteristics of the sound decoders 10890, 10891, 10892 and 10893 (can be used in addition to the loco decoders):

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

6-pole decoder (NEM 651)

Art. Nr.: 10887

6-pin decoder, angled pins; can be updated; multiprotocol operation possible; motor control; braking tracks supported; locomotive addresses programmable; comfortable change of operating parameters possible: i.e. the locomotive does not have to be opened; overcurrent protection; RailCom*

Suitable for Gauge H0e, TT and N.

Decoder specifications:

- DCC + RailCom*, DC analogue, MM, AC analogue
- Dimensions: 13 x 9 x 2.6 mm
- 0,7 A motor, total (peak 1.5 A)
- 6 function outputs
- 4 outputs for additional functions

Corresponds to: ZIMO MX617L

8-pole sound decoder (NEM 652)

Art. Nr.: 10890

Sound decoder with feedback capability with wires and 8-pole plug RailCom* and updatable. multiprotocol operation possible; motor control; braking tracks supported; locomotive addresses programmable; NMRA-compatible; comfortable change of operating parameters possible: i.e. the locomotive does not have to be opened; overcurrent protection;

DCC+RailCom*, DC analogue, MM, AC analogue.

Decoder specifications:

Motor 1,2 A , total (peak 2,5 A)
10 function outputs
2 outputs for additional functions, Servo control cables or SUSI
Function low voltage 5 V (200 mA)
External energy storage (16 V) directly connectable
3 Watt audio, 4–8 Ohm, 32 Mbit, 6 channels
Dimensions: 30 x 15 x 4 mm

Corresponds to: ZIMO MX645R

PluX22 sound decoder (NEM 658)

Art. Nr.: 10891

PluX22 sound decoder with feedback capability, with 22-pole plug RailCom* and updatable. multiprotocol operation possible; motor control; braking tracks supported; locomotive addresses programmable; NMRA-compatible; comfortable change of operating parameters possible: i.e. the locomotive does not have to be opened; overcurrent protection;

DCC+RailCom*, DC analogue, MM, AC analogue.

Decoder specifications:

Motor 1,2 A , total (peak 2,5 A)
9 function outputs
2 outputs for additional functions, Servo control cables or SUSI
Function low voltage 5 V (200 mA)
External energy storage (16 V) directly connectable
3 Watt audio, 4–8 Ohm, 32 Mbit, 6 channels Dimensions: 30 x 15 x 4 mm

Corresponds to: ZIMO MX645P22

8-pole sound decoder (NEM 652)

Art. Nr.: 10892

Sound decoder with feedback capability with wires and 8-pole plug RailCom* and updatable. multiprotocol operation possible; motor control; braking tracks supported; locomotive addresses programmable; NMRA-compatible; comfortable change of operating parameters possible: i.e. the locomotive does not have to be opened; overcurrent protection;

DCC+RailCom*, DC analogue, MM, AC analogue.

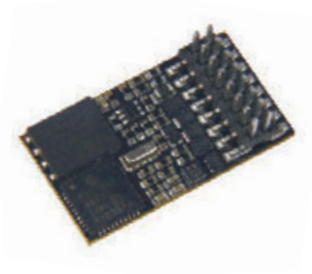
Decoder specifications:

Motor 0,8 A , total (peak 1,5 A)
6 function outputs
2 logic level outputs for additional functions, Servo control cables or SUSI
1 Watt audio, 8 Ohm, 32 Mbit, 6 channels
Dimensions: 20 x 11 x 4 mm

Corresponds to: ZIMO MX648R

PluX16 sound decoder (NEM 658)

Art. Nr.: 10893



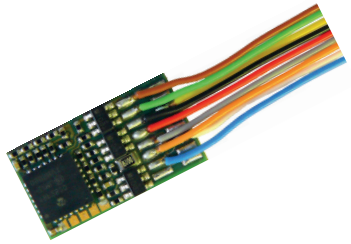
PluX16 sound decoder with feedback capability,
with 16-pole plug
RailCom* and updatable.
multiprotocol operation possible; motor control;
braking tracks supported; locomotive addresses
programmable; NMRA-compatible; comfortable
change of operating parameters possible: i.e.
the locomotive does not have to be opened;
overcurrent protection;
DCC+RailCom*, DC analogue, MM, AC analogue.

Decoder specifications:
Motor 0,8 A , total (peak 1,5 A)
4 function outputs
2 logic level outputs for additional functions,
Servo control cables or SUSI
1 Watt audio, 8 Ohm, 32 Mbit, 6 channels
Dimensions: 20 x 11 x 4 mm

Corresponds to: ZIMO MX648P16

8 pole decoder (NEM 652)

Art. Nr.: 10894



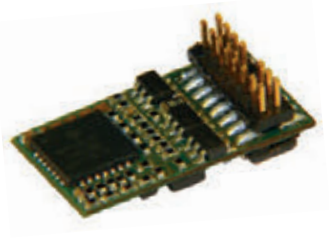
Decoder with feedback capability
with wires and 8-pole plug
RailCom* and updatable.
multiprotocol operation possible; motor control;
braking tracks supported; locomotive addresses
programmable; NMRA-compatible; comfortable
change of operating parameters possible: i.e.
the locomotive does not have to be opened;
overcurrent protection;
DCC+RailCom*, DC analogue, MM, AC analogue

Decoder specifications:
Motor 1,0 A , total (peak 2,5 A)
6 function outputs
2 logic level outputs for additional functions,
Servo control cables or SUSI
Dimensions: 20 x 11 x 3,5 mm

Corresponds to: ZIMO MX630R

PluX16 decoder (NEM 658)

Art. Nr.: 10895



PluX16 decoder with feedback capability
with 16-pole plug
RailCom* and updatable.
multiprotocol operation possible; motor control;
braking tracks supported; locomotive addresses
programmable; NMRA-compatible; comfortable
change of operating parameters possible: i.e.
the locomotive does not have to be opened;
overcurrent protection;
DCC+RailCom*, DC analogue, MM, AC analogue

Decoder specifications:
Motor 1,0 A , total (peak 2,5 A)
6 function outputs
2 logic level outputs for additional functions,
Servo control cables or SUSI
Dimensions: 20 x 11 x 3,5 mm

Corresponds to: ZIMO MX630P16

PluX22 decoder (NEM 658)

Art. Nr.: 10896

PluX22 decoder with feedback capability
with 22-pole plug
RailCom* and updatable.
multiprotocol operation possible; motor control;
braking tracks supported; locomotive addresses
programmable; NMRA-compatible; comfortable
change of operating parameters possible: i.e.
the locomotive does not have to be opened;
overcurrent protection;
DCC+RailCom*, DC analogue, MM, AC analogue

Decoder specifications:
Motor 1,2 A , total (peak 2,5 A)
9 function outputs
2 logic level outputs for additional functions,
Servo control cables or SUSI
Dimensions: 22 x 15 x 3.5 mm

Corresponds to: ZIMO MX633P22

* RailCom is a registered trademark of Lenz Elektronik GmbH

CONTROLLER, TRANSFORMER

Please select one of the following transformers or controllers most suited for your model layout:

- The controller set 6725 is best suited for smaller layouts, with just one loco, a few wagons, points and signals. (The current requirements of this set should not exceed 850 mA, otherwise the larger transformer 670601 should be used.)
- For a layout with illuminated coaches and lightings, the transformer 6735 would be our recommendation.
- A light transformer 670601, can be used in addition, if you plan to have a large number of points, street lights or similar accessories.

Please note: The current consumption of all of the locos, points and lighting which you wish to use, should not be more than that of the power output of the selected transformer, otherwise it can be overloaded and switch itself off, or the accessories (i.e. point motors) will not function properly.

Art. Nr.: 6725

Controller set

14 V= / 0,6 A (600 mA) Analogue controller set for D.C. operation
Separate output connection for lighting – and/or electrical accessories, i. e. signals or point motors.
Maximum power rating: 850 mA.

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.

Art. Nr.: 6735

MSF controller / transformer

14 V= / 0,55 A (550 mA) controllable DC power for track feed.

14 V~ / 0,5A (500 mA) constant AC power for lighting, signals and point motors.

- This controller / transformer guarantees good running qualities with its multisensible speed controller and definite forwards and backwards control.
- The control knob clicks gently into a zero position.
- Automatic overload protection.
- Easy connection to the layout using the pressure connection clips.

Art. Nr.: 670601

Light transformer for high capacity

Constant AC power 14V~ as well as
16 V~ / 3.2 A for illumination and electromagnetic items.

2 outputs. Dimensions: 140 x 82 x 60 mm

- This transformer is the high capacity power pack for the operation of electromagnetic items such as signals, point machines, relays, illumination and other accessories of the model railway installation.
- It has an integrated thermal protection switch against short circuit and overload
- Easy connection to the layout using the pressure connection clips.

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.

6920 6921 6922 6923 6924 6925 6927 6928

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

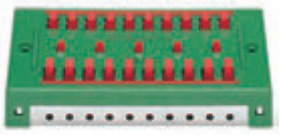
Reverse switch. For example to reverse the direction of running.

Art. Nr.: 6925

Impulse switch.
To operate one three-way point.

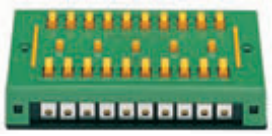
Note: www.fleischmann.de >Service > Downloads gives you lots of additional information about the FLEISCHMANN finger tip control panel

Art. Nr.: 6940



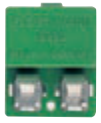
Distributor panel, 2 pole, for 10 connections each side

Art. Nr.: 6941



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

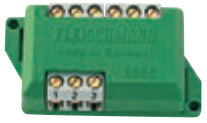
Art. Nr.: 6950



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

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

TRACK SYSTEM WITH BALLAST BED

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

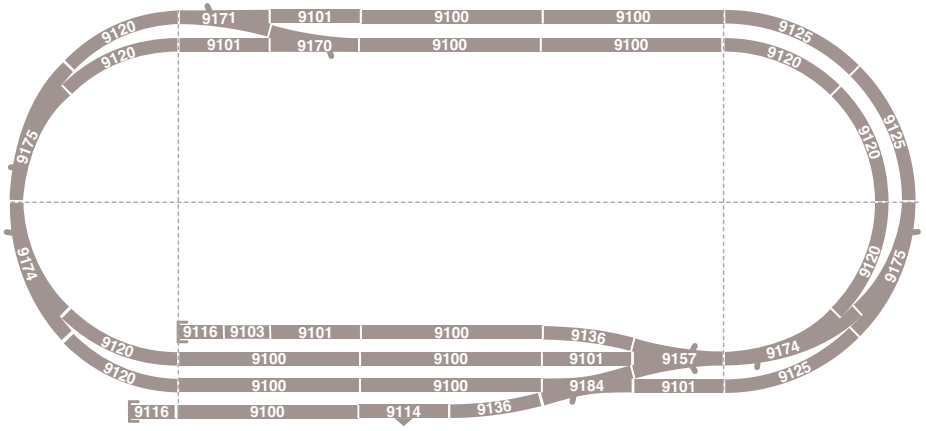
Visual appearance:

- 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 perfect reproduction of the ballast with its irregular outer edging, as well as the finely engraved imitation wooden sleepers – even the wood grain is visible – make this trackwork especially realistic. The width and height of the ballast bed has been so selected so that when laying tracks in the station area a closer distance between parallel tracks can be obtained with-out the ballast getting in the way.

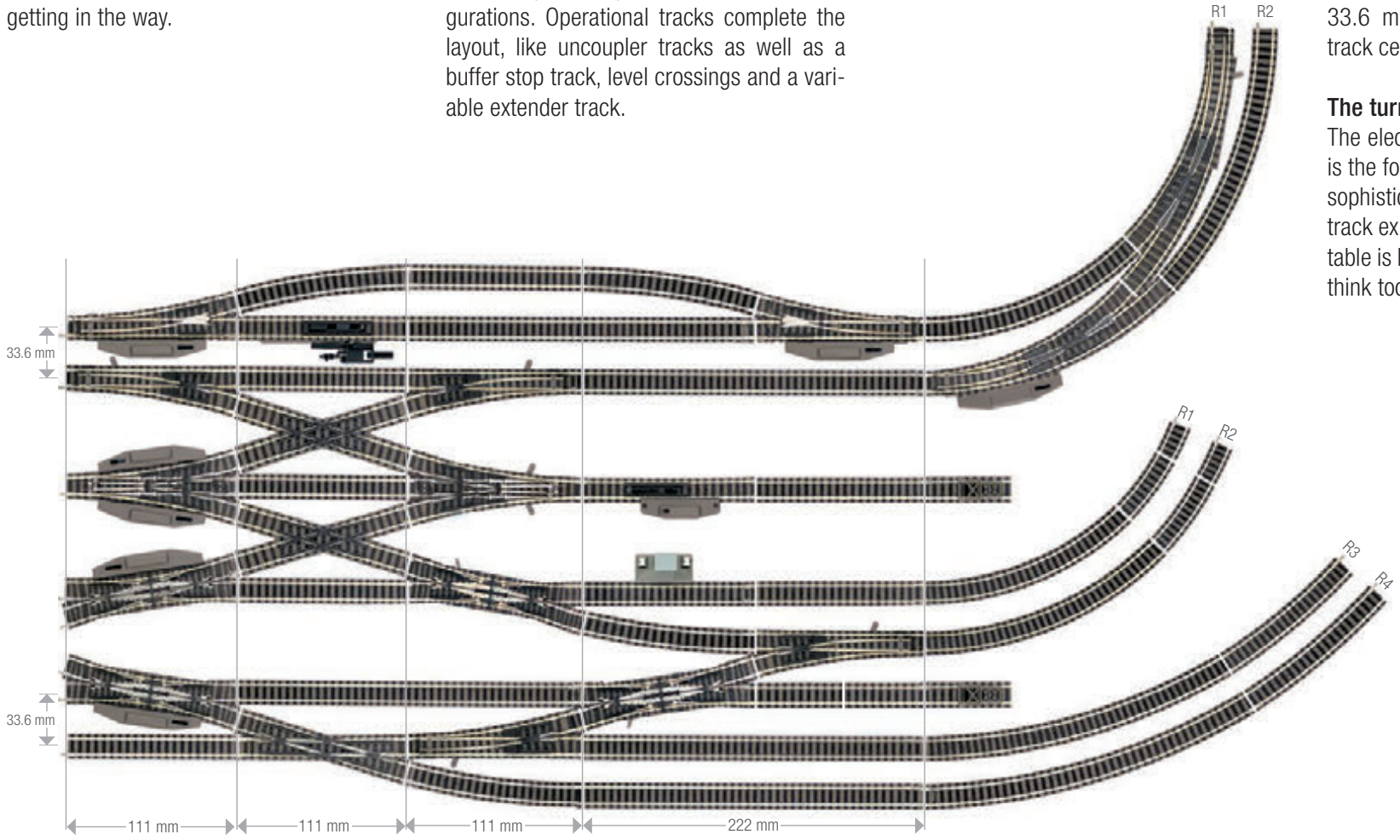
The track geometry
The basis of the track geometry is the straight „basis“ track 9101. Naturally, all standard points, three-way points, curved points and double slips are set out within the same grid network. Curved tracks with 4 radii, a flexible ballasted track, with which one can „curve“ extremely large radii, straight-, curved-, three-way points and double slips allow for practically all desired track configurations. Operational tracks complete the layout, like uncoupler tracks as well as a buffer stop track, level crossings and a variable extender track.

The „intelligent“ points
By simply clipping on an electric motor, all manual points can be converted to electrical operation at any time.
All points are constructed as „thinking“ points. A flick of the wrist, and the current will only flow in the direction in which the points are set.
As delivered, all points are live points, which means that all tracks permanently conduct power.

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

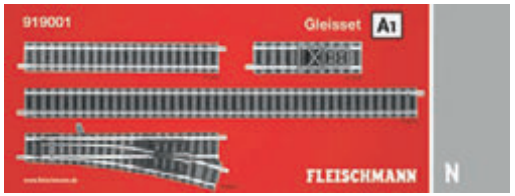
The parallel track distance
Two parallel running tracks, joined together via standard points, have the narrow gap of 33.6 mm (measured from track centre to track centre).

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!



TRACK SETS WITH BALLAST BED

Art. Nr.: 919001

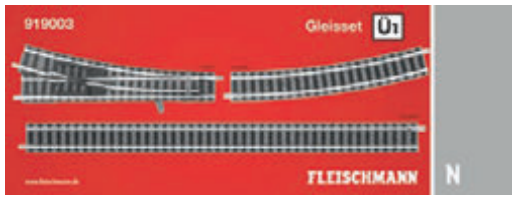


Set A1

Contents: 1 straight track 9100, 1 straight track 9101,
1 right hand point 9171, 1 buffer stop 9116

Foto: FLM-Archiv

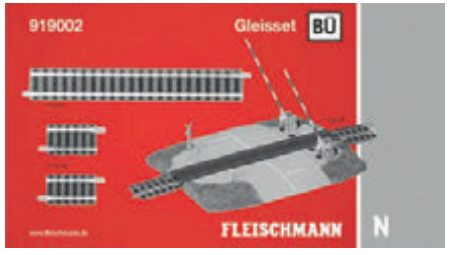
Art. Nr.: 919003



Set Ü1

Contents: 2 straight track 9100, 2 curved track 9136
(opposite curve for points), 1 right hand point 9171

Art. Nr.: 919002



Set BÜ

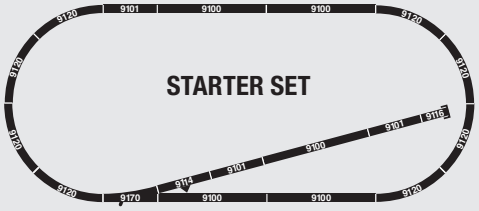
Contents: 1 straight track 9101, 2 straight tracks 9104,
1 level crossing 9198

Art. Nr.: 919004

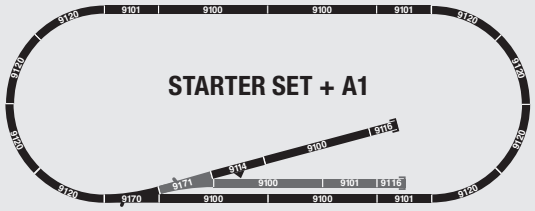
Set Ü2

Contents:
3 straight tracks 9100, 3 straight tracks 9101,
2 curved tracks 9136 (opposite curve for points),
2 manual uncoupler tracks 9114,
1 left hand point 9170, 1 right hand point 9171

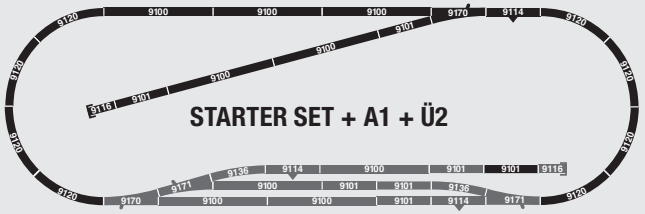
Starter sets:
www.fleischmann.de



96 cm x 40 cm



107 cm x 40 cm



130 cm x 40 cm

Art. Nr.: 919083 DCC digital

Digital set Ü1

DCC Digital Track Set Ü1:

Contents:
2 straight tracks 9100,
2 curved tracks 9136 (opposite curve for points),
1 right hand point 9171,
2 electric point motors,
1 x 9414 (clip-on electric motor for manual uncoupler track 9114),

1x 8-fold turnout decoder DCC 10775,
1x 3-pole cable 10623,
3x 3-pole connector 10603

Art. Nr.: 919084 DCC digital

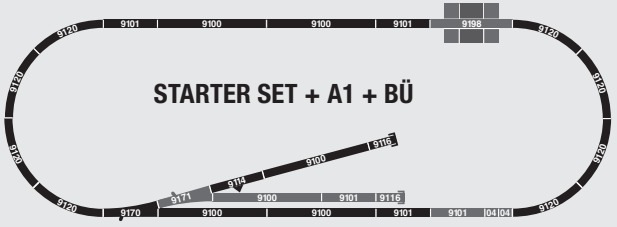
Digital set Ü2

DCC Digital Track Set Ü2:

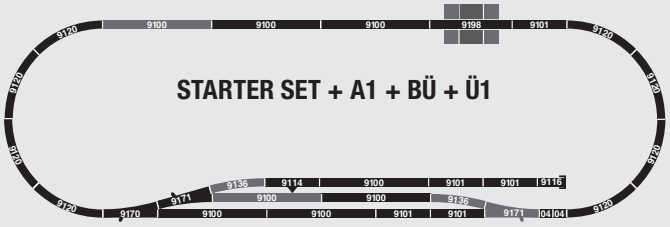
Contents:
3 straight tracks 9100,
3 straight tracks 9101,
2 curved tracks 9136 (opposite curve for points),
2 uncoupler tracks with electric motor 9112,
1 x 9414 (clip-on electric motor for manual uncoupler track 9114),
1 left hand point 9170, 1 right hand point 9171,
3 electric point motors

1x 8-fold turnout decoder DCC 10775,
1x 3-pole cable 10623,
6x 3-pole connector 10603

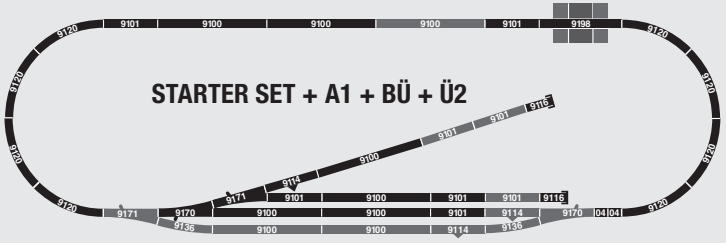
Foto: FLM-Archiv



124 cm x 40 cm



135 cm x 40 cm



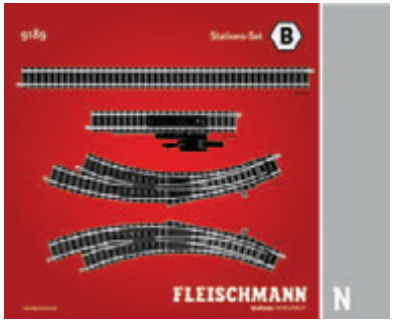
146 cm x 44 cm

TRACK SETS WITH BALLAST BED

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

Station set B

Art. Nr.: 9189

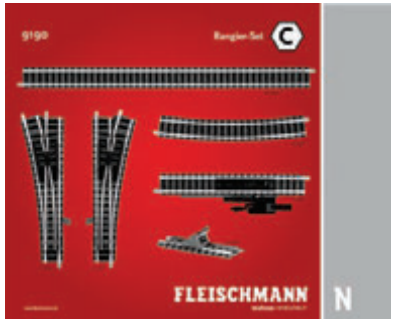


Contents:

4 straight tracks 9100, 2 uncoupler tracks 9114 as well as 1 left hand curved point 9174 and 1 right hand curved point 9175 to create a passing loop of longer „platform tracks".

Station set C

Art. Nr.: 9190

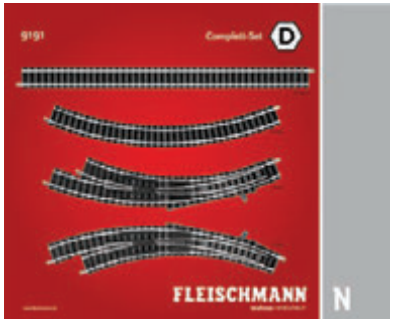


Contents:

6 straight tracks 9100, 1 uncoupler track 9114, 2 buffer stops 9116, 2 curved tracks 9136 as well as 1 left hand point 9170 and 1 right hand point 9171.

Complete set D

Art. Nr.: 9191



Contents:

12 straight tracks 9100, 8 curved tracks 9125, 1 left hand curved point 9174, 1 right hand curved point 9175 and 1 pair of power feed clips 9400.

Three-way point set E

Art. Nr.: 9194

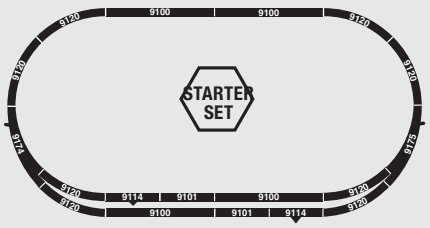
Contents:

1 three-way point 9157, 2 uncoupler tracks 9114, 2 buffer tops 9116, 13 straight tracks (7 x 9100, 3 x 9101, 2 x 9102, 1 x 9103), 2 curved tracks 9136.

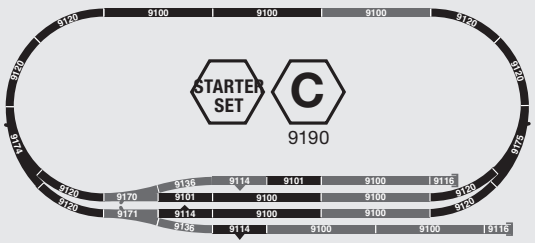
All track sets: Points and uncoupler tracks are adaptable with electric point motors.

Possibilities of enlargement with track sets

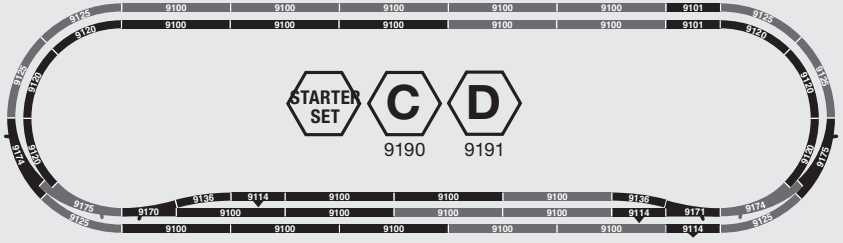
Example 1: Extension of a starter set with passing loop:



85 cm x 45 cm



107 cm x 48 cm

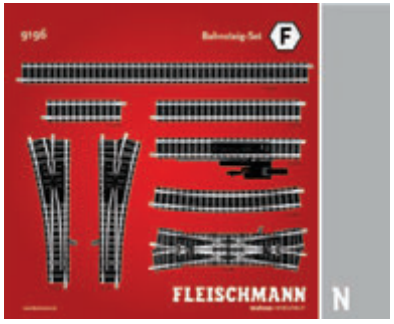


170 cm x 47 cm

Starter sets:
www.fleischmann.de

Platform set F

Art. Nr.: 9196



Contents:

1 left hand point 9170, 1 right hand point 9171, 1 double slip 9184, 13 straight tracks (8 x 9100, 3 x 9101, 2 x 9102), 2 uncoupler tracks 9114 and 2 curved tracks 9136.

Electro set

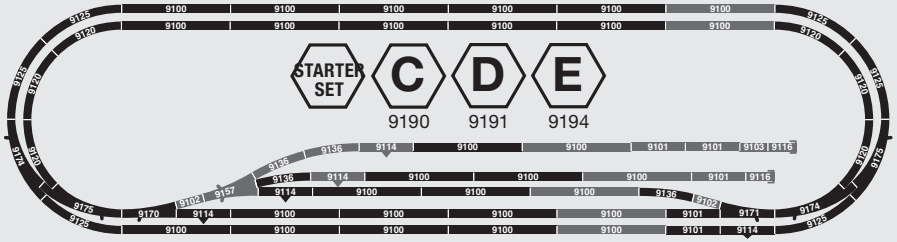
Art. Nr.: 919501

To retrofit manual points with electric drive.

The set can convert manually operated points to electro-magnetic points. Remote control via control switch. Can be used for standard, curved, three-way and double slip points.

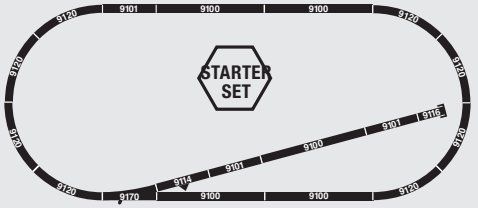
Contents: 2 electric point motors, 1 control switch 6920.

One electric set is sufficient for the electrification of each track set 9189, 9190, 9191 and 9194.

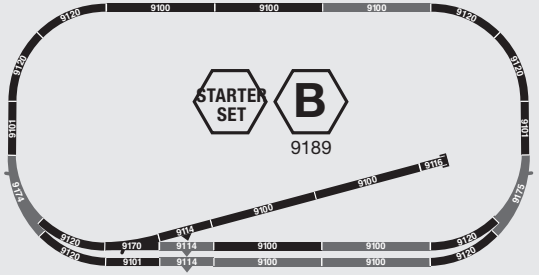


181 cm x 47 cm

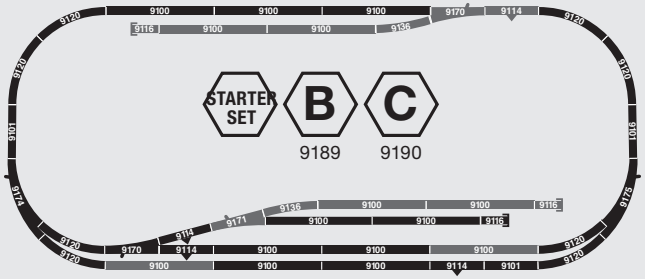
Example 2: Extension of a starter set with turnout:



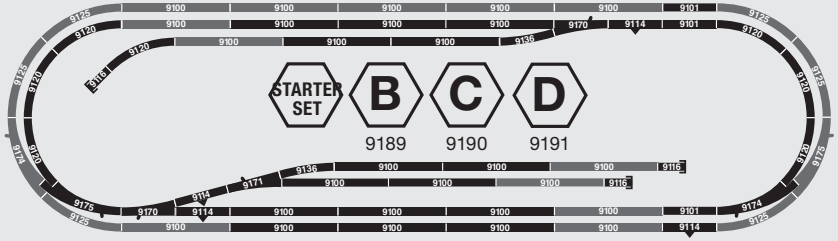
96 cm x 40 cm



107 cm x 56 cm



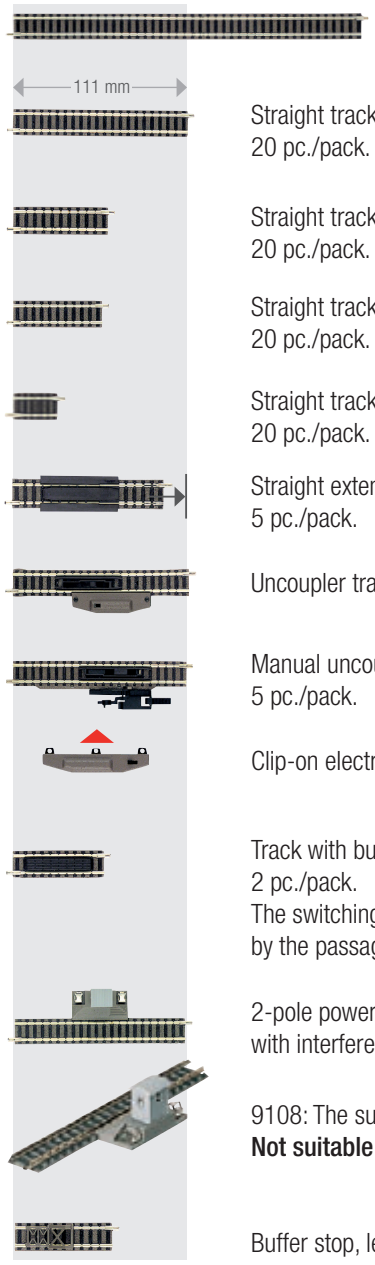
118 cm x 56 cm



170 cm x 47 cm

TRACK SETS WITH BALLAST BED

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.

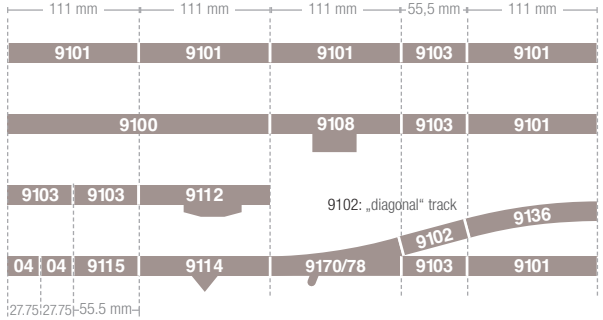
Art. Nr.: 9115
Track with built in switch contact, length 55.5 mm.
2 pc./pack.
The switching impulse (max. 800 mA) is activated
by the passage of the magnets 942601 or 942701.

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

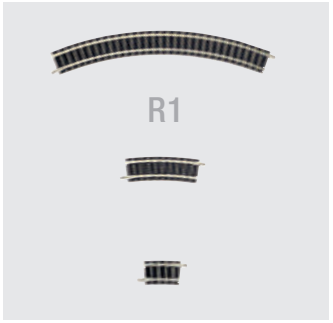
Flexible track, length 777 mm.
Due to its flexibility, this track is ideal for gentle, flowing curves to show off the trains. Ideally suited for long straight lengths. 20 pc./pack.

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.

Photo: FLM-Archiv

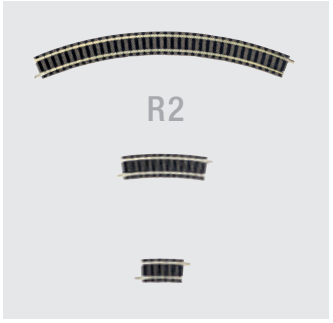
Curved tracks



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.

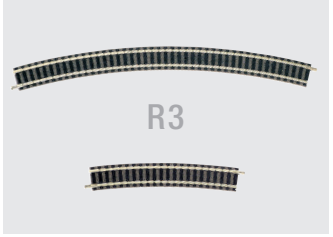
Art. Nr.: 9123
Curved track, 7.5°, radius R1: 192 mm.
20 pc./pack.



Art. Nr.: 9125
Curved track, 45°, radius R2: 225.6 mm.
Outer diameter: 468 mm. 8 tracks make up a circle.
20 pc./pack.

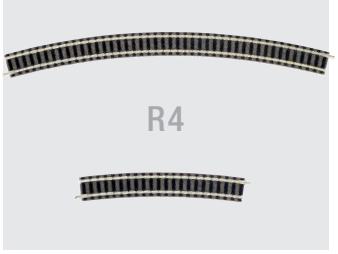
Art. Nr.: 9127
Curved track, 15°, radius R2: 225,6 mm.
20 pc./pack.

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.



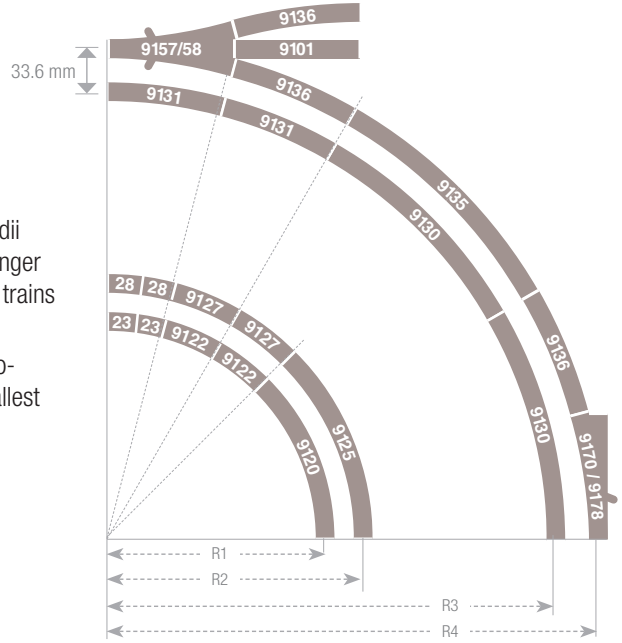
Art. Nr.: 9135
Curved track, 30°, radius R4: 430 mm.
Outer diameter: 877 mm. 12 tracks make up a circle.
20 pc./pack.

Art. Nr.: 9136
Curved track, 15°, radius R4: 430 mm.
20 pc./pack.
Opposite curve for points.

The track radii:

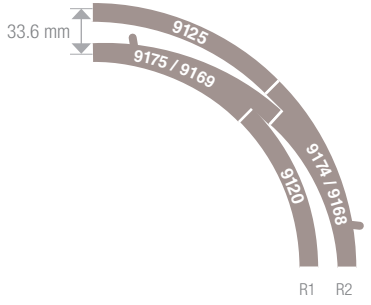
The distance of the track radii is 33.6 mm, so that even longer vehicles do not touch when trains meet and enter the curve.

Even the longest tender locomotives can run on the smallest radius R1!



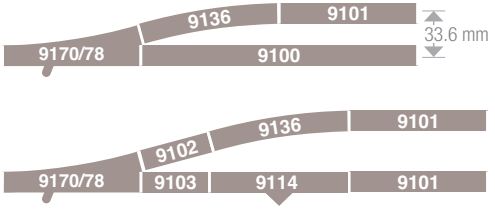
Curved points

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

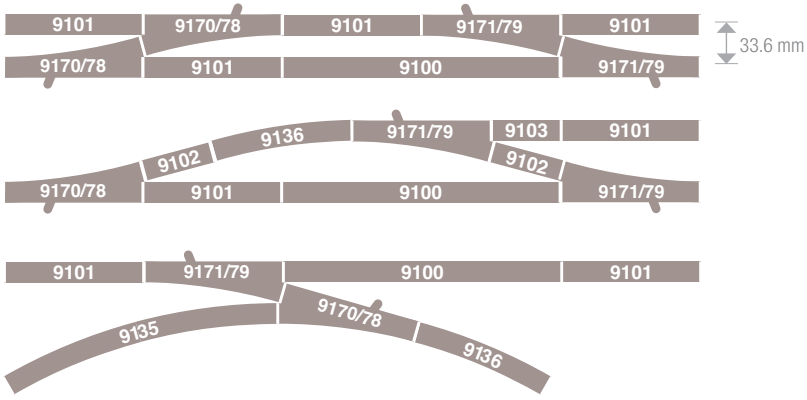
Left hand curved point for manual operation, with current-conducting frog

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.



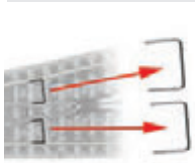
All points are adaptable with electric point motors.

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.



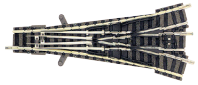
As delivered, **all** points are so-called live points, i.e. all track exits conduct electricity and can be run over by any powered vehicle.

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.

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

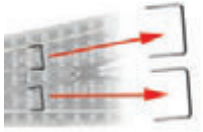
9162 / 9163:
The two tracks which cross over each other are electrically separated, so that two different track circuits can cross.

Art. Nr.: 9184

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

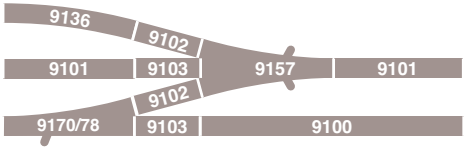
Art. Nr.: 9185

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

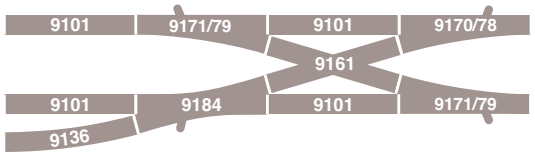


9184 / 9185:
As delivered, all track exits deliver power into one circuit. By removing the wire bridge clips the crossing tracks become electrically isolated from each other.
On the „crossover“ setting, another track circuit can be traversed.
On the „branch-off“ setting, the current is separated at the centre of the points.

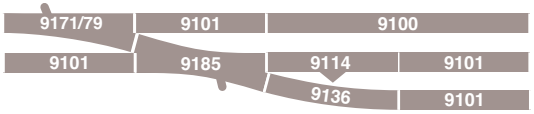
Three-way point:



Crossover track:

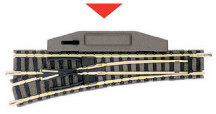


Double slip:



Ponit accessories

Art. Nr.: 640000



Electromagnetic universal point motor 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.

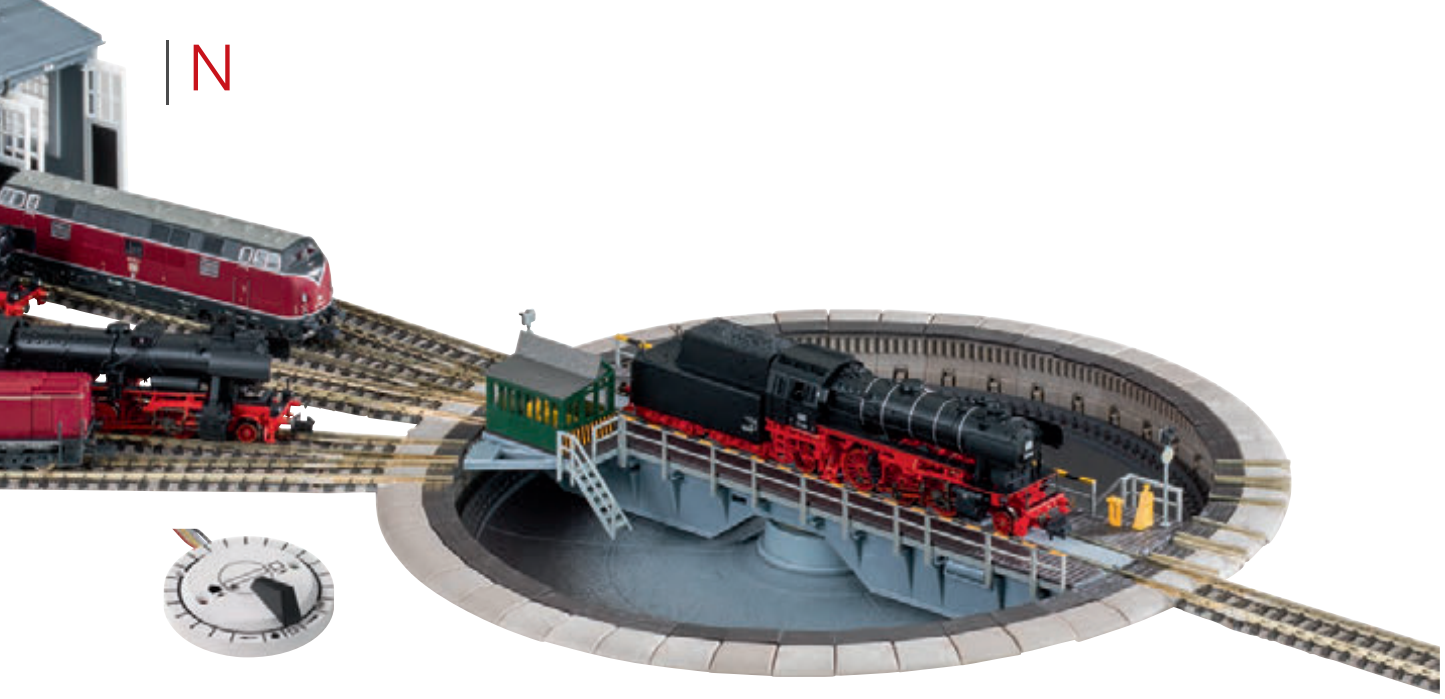
* The universal point motor 640000 replaces the items 942101 and 942201.

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.

TURNTABLE



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

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.

Art. Nr.: 9153

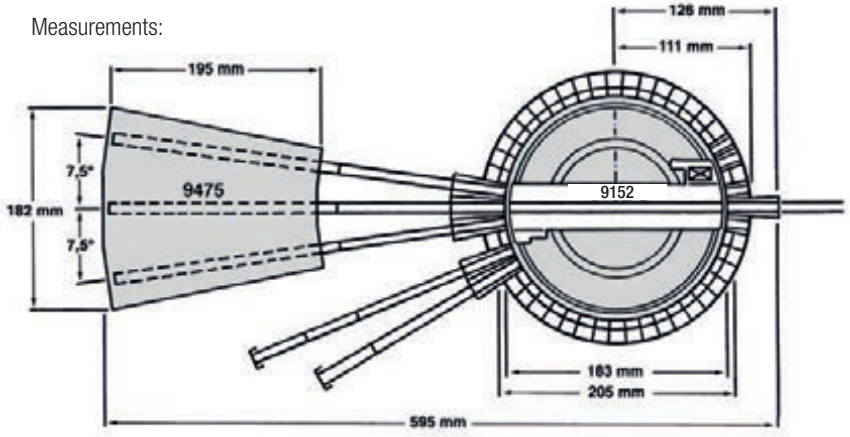
Extension set for turntable 9152
Containing 3 exit tracks and 3 over-run ends.

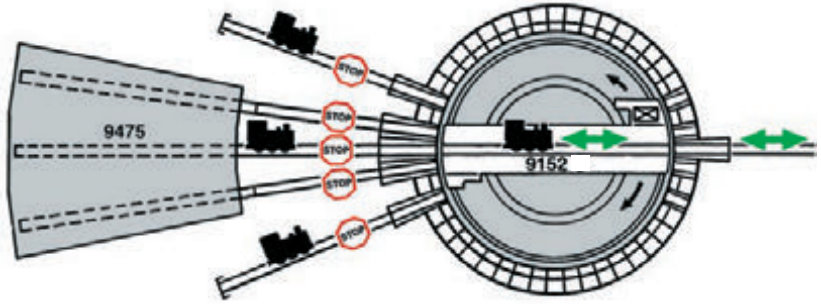
The „thinking“ turntable:

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 wtih 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 controlles is catered for by the switch, when rotating through 360°, the turntable is protected against short circuit.

Foto: M. Leidel

Art. Nr.: 6910

Turntable switch

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

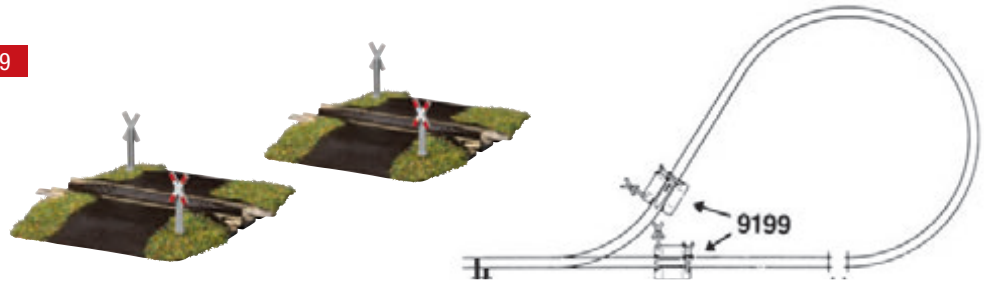
Art. Nr.: 9475

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.: 9199

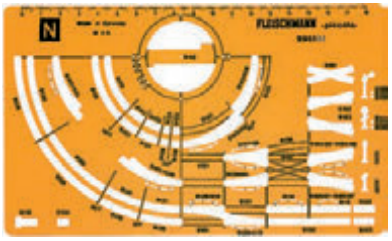


Reverse loop set
2 x 55.5 mm lengths of track looking like unguarded crossings.
With warning crosses, re-railing section and isolating rail joiners.
Not suitable for digital operation.

Art. Nr.: 9499

Ungated level crossing
With warning crosses, re-railing section and isolating rail joiners.
Length 55.5 mm (1/2 length of the basic track 9101)

Art. Nr.: 995101



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

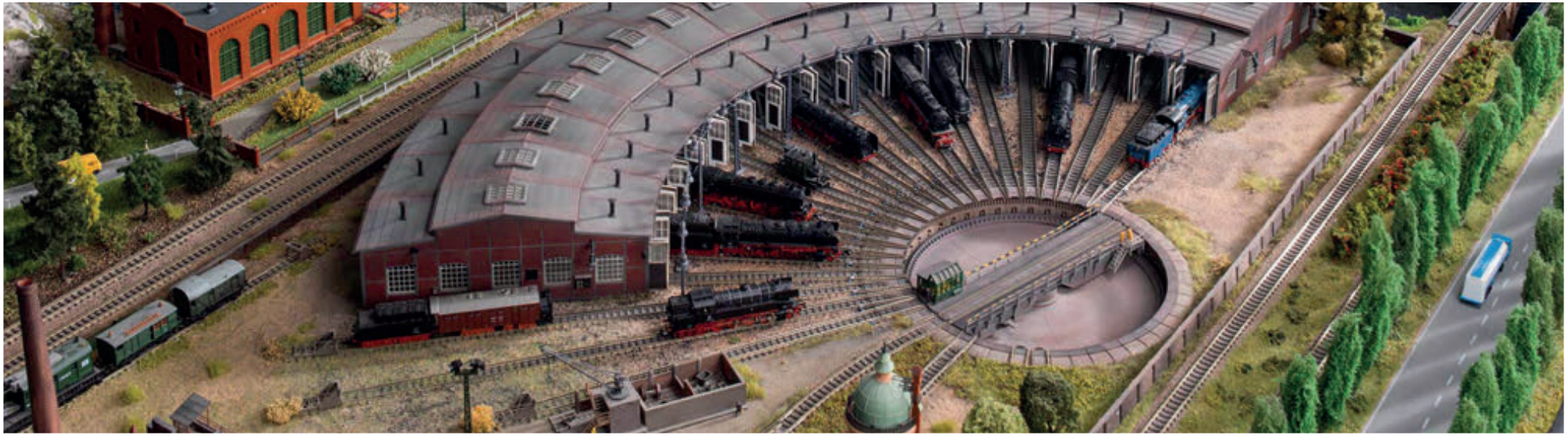
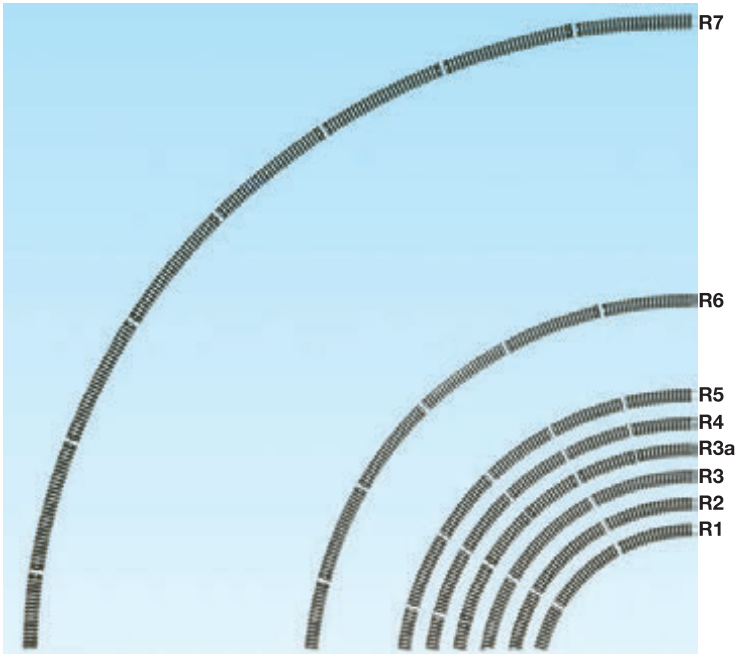


Foto: M. Leidel



The N gauge track without ballast bed – the great value track system

The basis of every model railway layout is the trackwork. A large selection of N tracks is now at your disposal, which will fulfil all your requirements as a railway modeller.

There is virtually no limit to your imagination by using the vast array of various track radii, standard points, crossovers, double-slips, the space-saving three-way points, or the slim angles of the model points. Flexible tracks allow you to create your own trackwork on your model layout to suit your own design.

The tracks are made using nickel silver rails, thus giving you the maximum current carrying capacity, mounted on finely detailed sleepers.

Flexible tracks

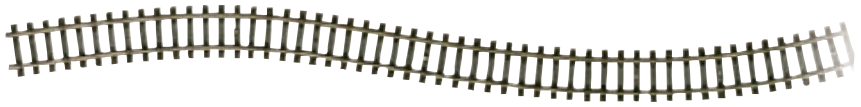
You can choose which of two tracks to use:

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



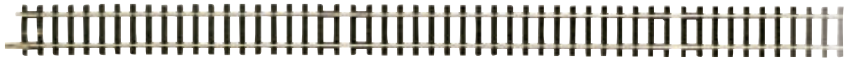
Flexible track, length: 730 mm,
especially flexible.
12 pc. per pack.

Art. Nr.: 22201

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

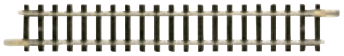
Straight tracks

Art. Nr.: 22202



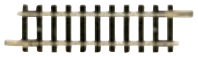
Length: 312.6 mm = 3 x 22203 (standard track). 12 pc./pack.

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.

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.

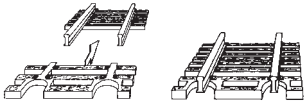
Art. Nr.: 22212

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.

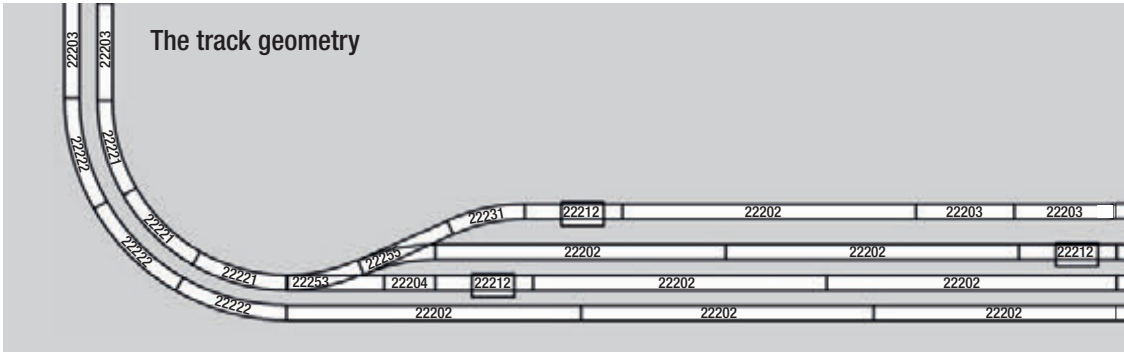
Art. Nr.: 22220

Feeder track with radio suppressor unit.
Length 104.2 mm (standard length).
Not suitable for use in digital operation.

Art. Nr.: 22215



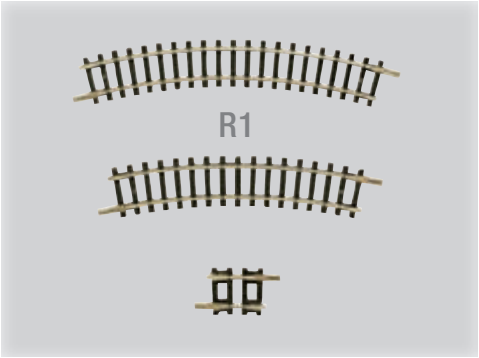
Sleeper end piece for flexible track.
To enhance the appearance of flexible track ends which have been cut to size, ensuring a correct sleeper spacing.
24 pc./pack.



TRACK SETS WITHOUT BALLAST BED

Curved tracks

Art. Nr.: 22221
Art. Nr.: 22231
Art. Nr.: 22232

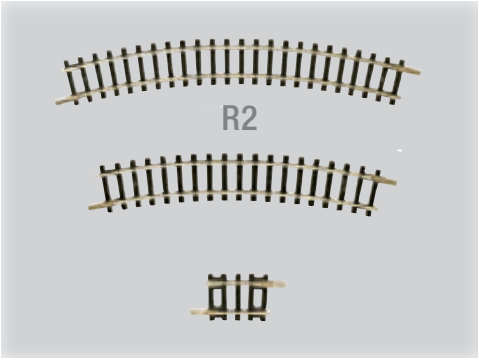


R1, 30°. Radius 194,6 mm
12 pieces are needed to form a full circle. 12 pc./pack.

R1, 24°. Radius 194,6 mm
12 pc./pack.

R1, 6°. Radius 194,6 mm
12 pc./pack.

Art. Nr.: 22222
Art. Nr.: 22233
Art. Nr.: 22234

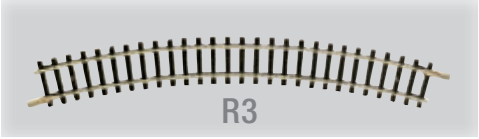


R2, 30°. Radius 228,2 mm
12 pieces are needed to form a full circle. 12 pc./pack.

R2, 24°. Radius 228,2 mm
12 pc./pack.

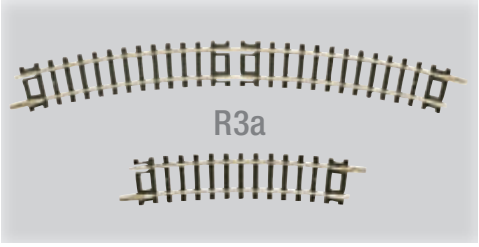
R2, 6°. Radius 228,2 mm
12 pc./pack.

Art. Nr.: 22223



R3, 30°. Radius 261,8 mm
12 pieces are needed to form a full circle. 12 pc./pack.

Art. Nr.: 22224
Art. Nr.: 22235



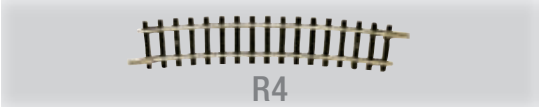
R3a, 30°. Radius 295,4 mm
12 pieces are needed to form a full circle. 12 pc./pack.

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.

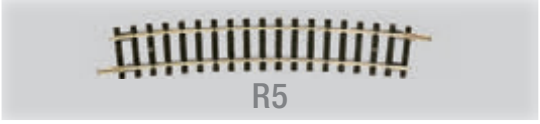
R1	194.6 mm
R2	228.2 mm
R3	261.8 mm
R3a	295.4 mm
R4	329 mm
R5	362.6 mm
R6	480 mm
R7	765 mm

Art. Nr.: 22225



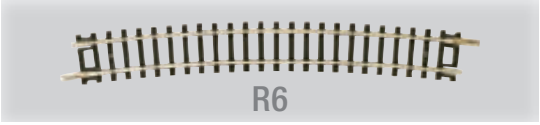
R4, 15°. Radius 329 mm
12 pc./pack.

Art. Nr.: 22226



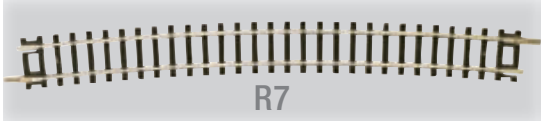
R5, 15°. Radius 362,6 mm
12 pc./pack.

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 crossovers 22244 and 22245) are fitted with additional pickup contacts.

Art. Nr.: 22249

Art. Nr.: 22253

24°

Art. Nr.: 22251

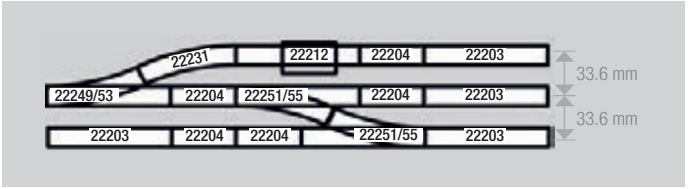
Art. Nr.: 22255

22249: Electric left hand point 24°

22253: Manual left hand point 24°

22251: Electric right hand point 24°

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

Art. Nr.: 22265

15°

Art. Nr.: 22263

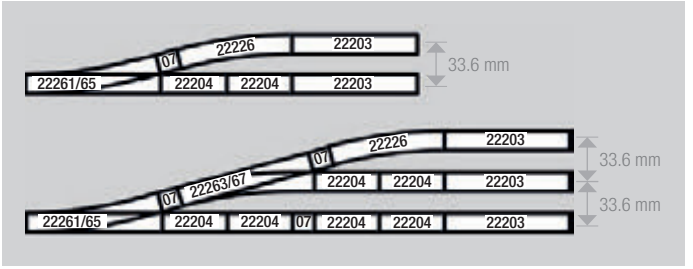
Art. Nr.: 22267

22261: Electric left hand point 15°

22265: Manual left hand point 15°

22263: Electric right hand point 15°

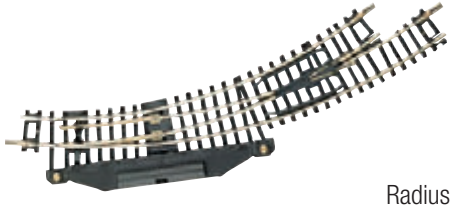
22267: Manual right hand point 15°



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



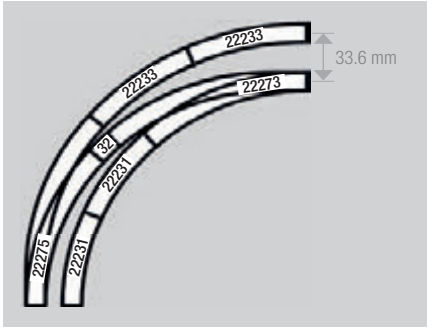
Electric left hand curved point (radius R1/R2)

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

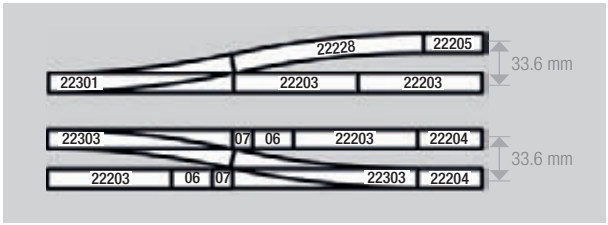
Art. Nr.: 22301

Art. Nr.: 22303

10°

Left hand point without point mechanism, 10°

Right hand point without point mechanism, 10°

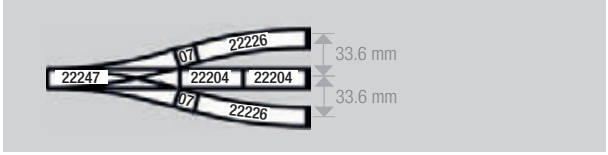


10°
Points

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

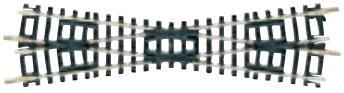
Electric three-way point 15°
Length of the straight track 112.6 mm, point angle 15°.



Art. Nr.: 22246

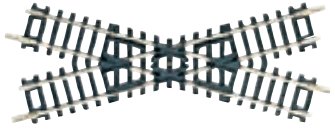
Electric double-slip point 15°
Length of the diagonal 129.8 mm, crossing angle 15°.

Art. Nr.: 22245

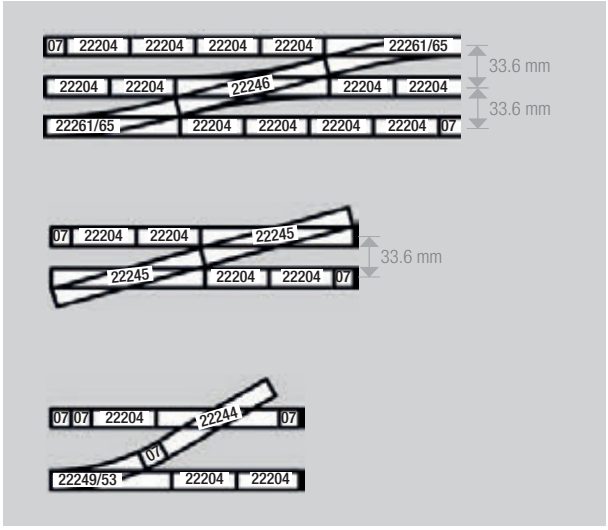


Crossing 15°
Length of the diagonal 112,6 mm, crossing angle 15°.
The crossing tracks are isolated from each other so that two independent power circuits can cross each other.
4 pc./pack.

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.

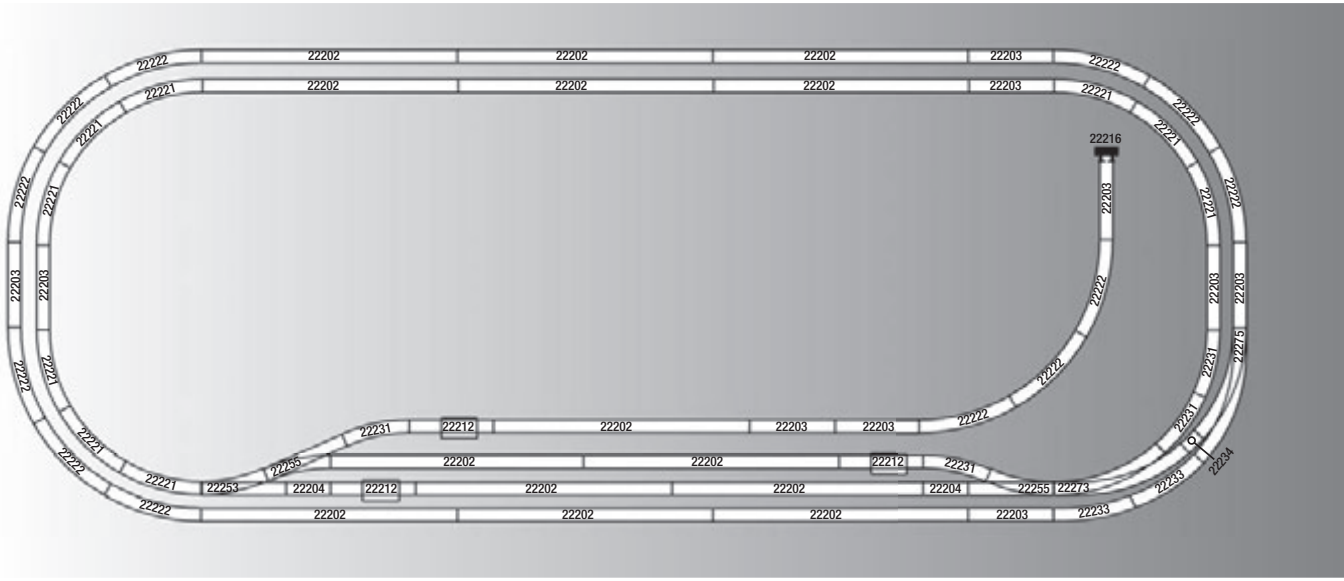


Art. Nr.: 22218

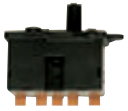
Electric point mechanism for left hand points
Suitable for N gauge points without ballast bed.
Double spool operation with end-off switching.
For fitting to manual points.

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.

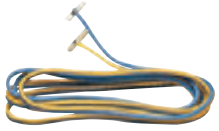


Art. Nr.: 10030



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.

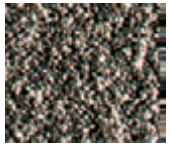
Art. Nr.: 6410

Wood-screws
For fastening tracks, rackrails, signals, relays and signal box parts.
Content: approx. 144 pieces

Art. Nr.: 9409

Track fixing nails
Nail length approx. 7 mm
in a plastic container
Content: approx. 500 pieces

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

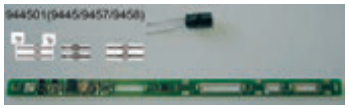
Rerailer (without vehicle shown)
For easily of placing vehicles on the track.

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.

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.

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.

Art. Nr.: 389545

50 x 9545
Bumper pack

With standard coupling 9521

With PROFI coupling 9543

Even all N vehicles without slot-guide mechanism couple up noticably 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

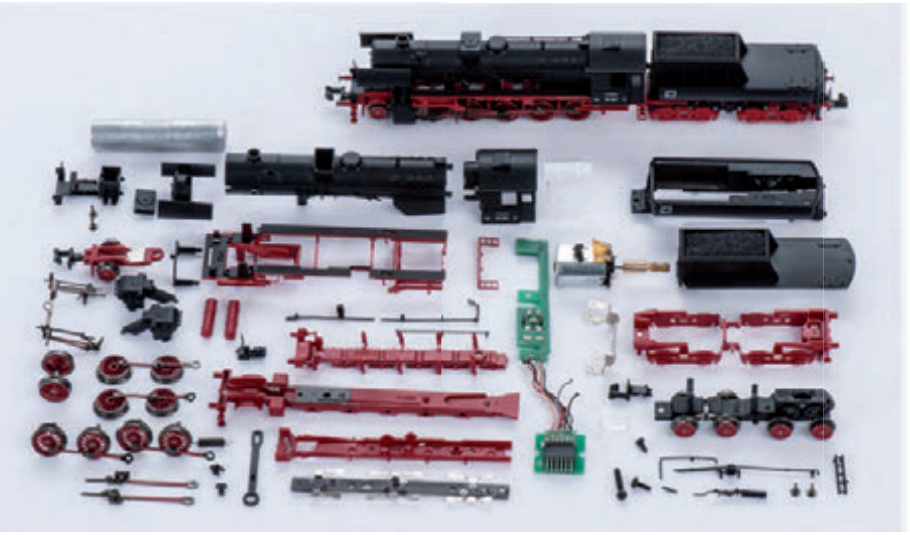
Adapter for PROFI coupling head 9570
Suitable for ICE 1 and ICE 2.

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).

Important exchange couplings from our spare part assortments: www.fleischmann.de >products

ACCESSORIES

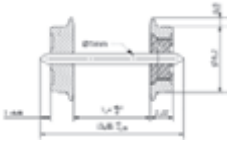


Spare parts

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.

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.

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.

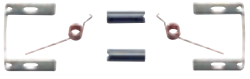
Art. Nr.: 948008

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.

Newsletter

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.

Photo: Fleischmann Archiv

FLEISCHMANN

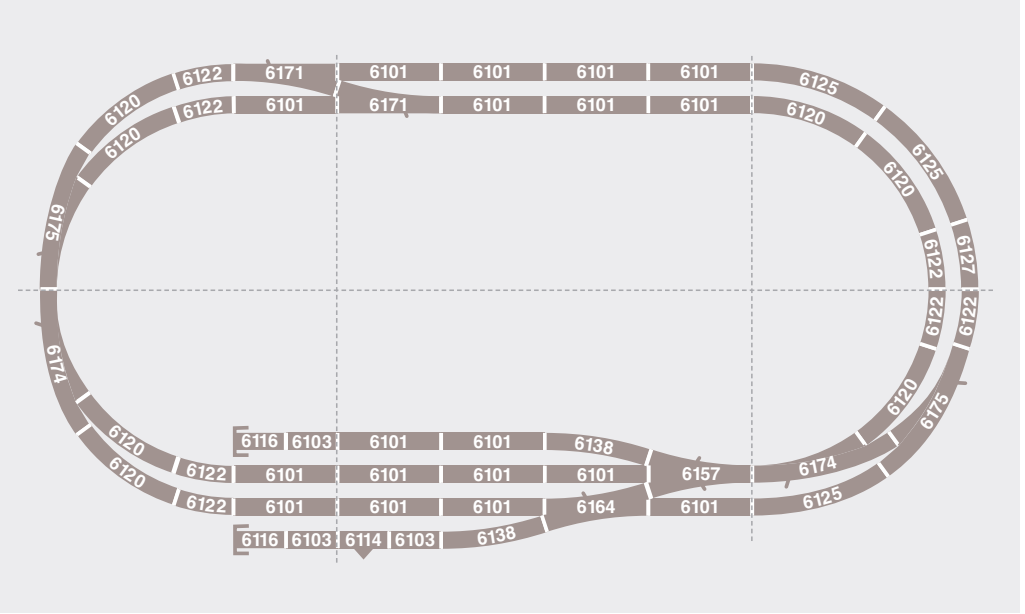
TRACK SYSTEMS

The PROFI track with ballast bed

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

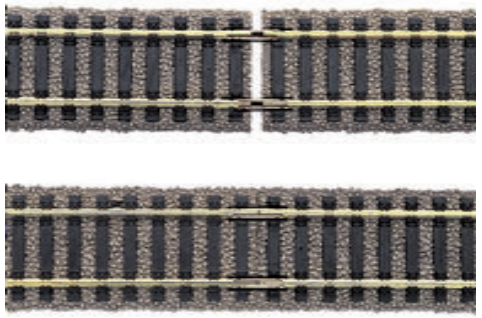
Visual appearance:
- Realistic appearance with true to the original wood sleepers and ballast bed
- Secure and stable connection of the tracks
- Crush resistent

Clear track geometry:
- A few different tracks already allow for the construction of a play and model railway compatible layout
- Grid with track geometry
- All switches can be upgraded to electrical remote control by plugging in an electric drive



The track foundation

The fine, precision engraved ballast bed with its irregular outer edges gives an excellent reproduction of the ballast shape, even down to identifying each individual stone. The width and height of the ballast bed has been selected in such a way that when laying tracks in the station area a closer distance between parallel tracks can be obtained without the ballast getting in the way. If a broader ballast bed is required, then colour matched scatter material is available.



You can even recognize the grain on the dark brown wooden sleepers of the PROFI track that differ in color from the grey-brown ballast. Also prototypical are the so called "Skl 3" tension clips with rib plates.

The Tracks

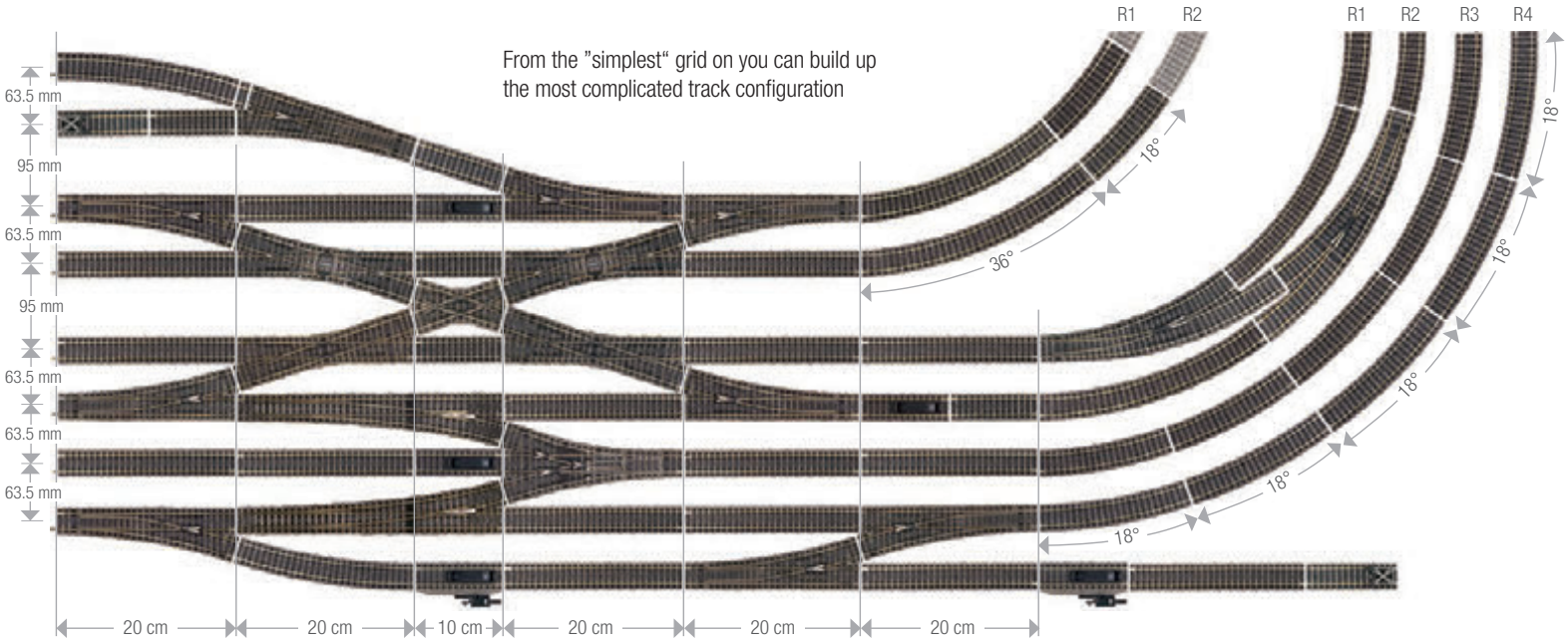
The full-profile rails of the Profi-tracks consist of a high value nickel-silver alloy with ideal current conducting properties even over long stretches. Special "Click" rail joiners ensure a lasting, secure fastening for Profi-tracks, even if they have been laid on the floor, and guarantee a good conductivity at rail joints.

The track geometry

With only a few different track pieces, the PROFI-track system allows to construct an operational model railway.
Apart from diagonal tracks and a few special tracks the well thought out, easily understandable track geometry within a grid system, , utilises only "full" or "half" straight or curved tracks. Track feed clips and switching accessories can be simply attached to the track as necessary.

Curved tracks with 4 standard radii, flexible ballasted tracks, with which one can "curve" extremely large radii, straight-, curved-, three-way points, double slips and express points all make it possible for practically all desired track configurations. Operational tracks complete the layout, like uncoupler tracks as well as buffer stop tracks, even with level crossings.

By simply clipping on an electric motor, all manual points can be converted to electrical operation at any time.



THE PROFI TRACKS

Flexible tracks:

Gently curved parade routes can be easily built with this special track (6106 or 6109). Equipped with a gravel bed as all other PROFI tracks.
Also compound curves - gradual transition from a straight track into a curved track - can be simply built with flextracks. A track for the real pro!

Art. Nr.: 6106

Flexible track with wooden sleepers
Length 800 mm (= 4 x standard track 6101).
For each track you need two rail connectors 6436.
10 pc./pack.
Wooden sleeper tracks or concrete sleeper tracks are often used alongside each other on german railways.

Art. Nr.: 6109

Flexible track with concrete sleepers
Length 800 mm (= 4 x standard track 6101).
For each track you need two rail connectors 6436.
10 pc./pack.

Easy connection to FLEISCHMANN-PROFI-track by using the rail joiners 6436.

Tracks with concrete sleepers are used for long distance and regional areas for high speed running.

Straight tracks

Art. Nr.: 6101

Straight track
Length 200 mm (standard length). 10 pc./pack.

Art. Nr.: 6103

Straight track
Length 100 mm (half standard length). 10 pc./pack.

Art. Nr.: 6102

Straight track for the diagonal
Length 105 mm. 10 pc./pack.

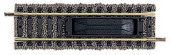
Art. Nr.: 6107

Straight track for the diagonal
Length 10 mm. 10 pc./pack.

Art. Nr.: 6110

Adjustable straight track
Length 80 - 120 mm. 5 pc./pack.

Art. Nr.: 6111



Uncoupler track with integrated electric motor
Length 100 mm.

Uncoupler tracks: Whether with manual operation (6114) or electrical operation (6111) – if an uncoupler track is introduced into the trackwork, then at this point locos and wagons can be uncoupled. The uncoupler track 6111 combines good looks with operational needs. The motor is hidden within the track bed. Below baseboard mounting is not necessary.

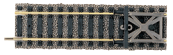
Art. Nr.: 6114

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

Art. Nr.: 6444

Electrical plug-in motor for manually operated uncoupler track 6114

Art. Nr.: 6116



Buffer stop track
Length 105 mm. 10 pc./pack.

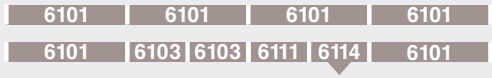
Art. Nr.: 6117

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

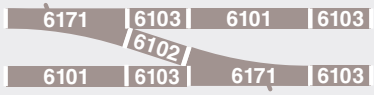
Art. Nr.: 6412

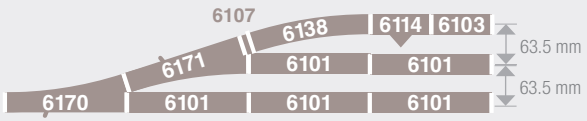
Flexible rack track for PROFI track
Length 200 mm. 10 pc./pack.
Flexible - to install in straight or curved tracks.
Suitable for all radii (R1 - R4).

The basic track:
The basic track of the track layout with PROFI-track is the 200 mm long track piece 6101.
Geometrically derived from it are the tracks with „half“ length: such as 6103 and the decoupler tracks 6111 and 6114.



Diagonal track:
The tracks 6102 and 6107 are provided for diagonal use in the track layout.





The 10 mm long track 6107 is particularly important if a standard point is built in diagonally. The straight 200 mm long section lies diagonally, and must therefore, in order to stay within the grid, be extended by 10 mm.

Curved tracks

Art. Nr.: 6120

Art. Nr.: 6122

Curved track R1, 36°
Radius 356,5 mm, Outer diameter of 746 mm.
10 pieces are needed to form a full circle.
10 pc./pack.

Curved track R1, 18°
Radius 356,5 mm, Outer diameter of 746 mm.
20 pieces are needed to form a full circle.
10 pc./pack.

Art. Nr.: 6125

Art. Nr.: 6127

Curved track R2, 36°
Radius 420 mm, Outer diameter of 873 mm.
10 pieces are needed to form a full circle.
10 pc./pack.

Curved track R2, 18°
Radius 420 mm, Outer diameter of 873 mm.
20 pieces are needed to form a full circle.
10 pc./pack.

Art. Nr.: 6131

Curved track R3, 18°
Radius 483,5 mm, Outer diameter of 1000 mm.
20 pieces are needed to form a full circle.
10 pc./pack.

Art. Nr.: 6133

Curved track R4, 18°
Radius 547 mm, Outer diameter of 1127 mm.
20 pieces are needed to form a full circle.
10 pc./pack.

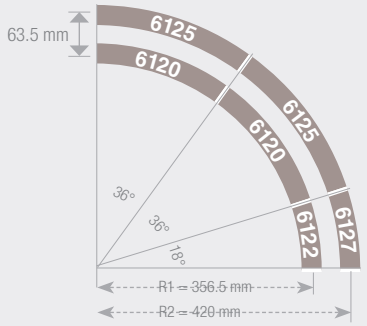
Art. Nr.: 6138

Curved track, 18°
Radius 647 mm, Outer diameter of 1327 mm.
Opposite curve for straight points.
10 pc./pack.

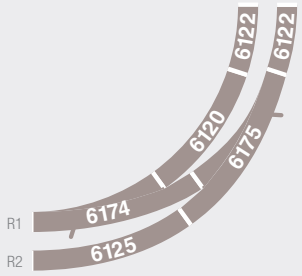
Art. Nr.: 6139

Curved track, 7,5°
Radius 788 mm.
Special track for PROFI track turntable exits.
10 pc./pack.

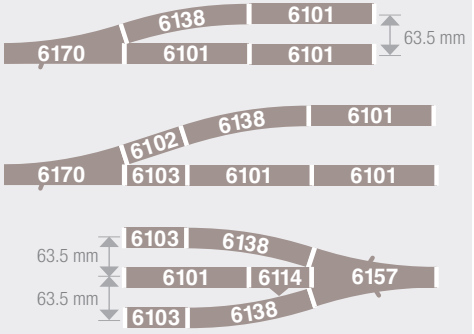
The track radii:
The distance of the track radii is 63.5 mm, so that even longer vehicles do not touch when trains meet and enter the curve.
Even the longest tender locomotives can run on the smallest radius R1!



Curved points:
to change from radius R1 to radius R2 and viceversa.



Opposite curve 6138
for straight points, threeway-point, double-slips and 18° crossings.



Points

All points are available for manual operation. Of course, the manual points can be fitted with electric motors later. This point motor can be mounted above the baseboard surface, or even underneath the baseboard. It is then necessary to cut a hole in the baseboard to accommodate the point motor.

Art. Nr.: 6170

Left hand point, for manual operation
Length 200 mm (standard length), branch angle 18°, branch radius 647 mm, frog angle 12°.

Art. Nr.: 6171

Right hand point, for manual operation
Length 200 mm (standard length), branch angle 18°, branch radius 647 mm, frog angle 12°.

Art. Nr.: 6174

Left hand curved point, for manual operation

Using the curved points, you can change from one track circle with radius 1 into another circle of radius 2 – and vice versa.

Art. Nr.: 6175

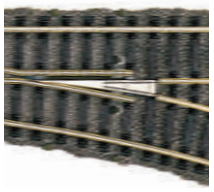
Right hand curved point, for manual operation

Art. Nr.: 6178

Left hand express point, for manual operation
Length 300 mm, branch angle 18°, frog angle 9.5 °

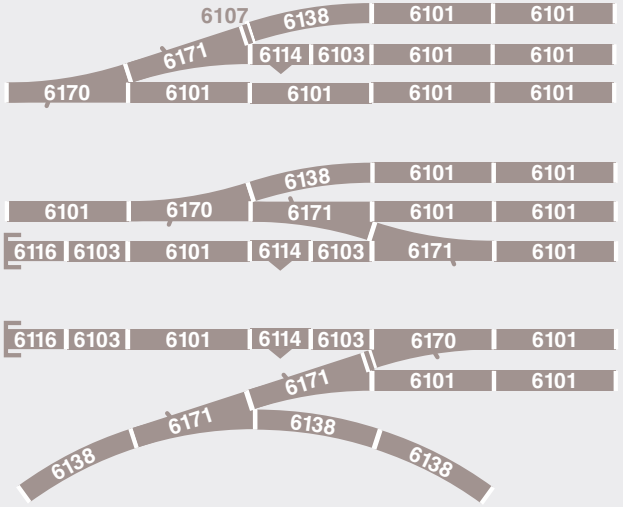
Art. Nr.: 6179

Right hand express point, for manual operation
Length 300 mm, branch angle 18°, frog angle 9.5 °



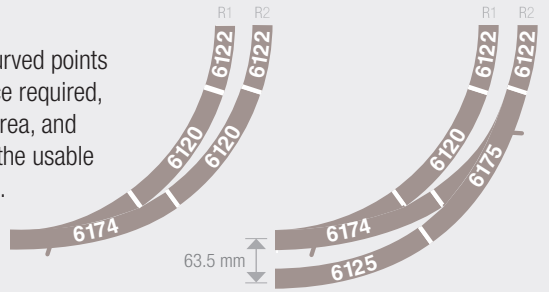
The express points 6178/6179 with current conducting frog:

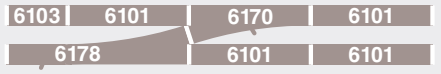
On the express points the power pick-up is enhanced by the 9.5° floating, current conducting frog.
These points – just as in the prototype – cannot be slipped through, otherwise a short circuit may occur. The points must always be set in the right direction for the running vehicle.



Standard points:
The standard points 6170 and 6171 are the foundations for variable running operations on the model railway layout. Branch-offs from the straight can be made up with them. Extensive track layouts in the station area as well as storage sidings or industrial yards are made possible with them.

Curved points: Using curved points you can save on the space required, especially in the station area, and at the same time extend the usable track length of a platform.

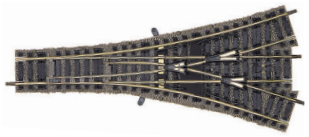




The express points:

Points

Art. Nr.: 6157



Three-way point, for manual operation
Length of the straight track 200 mm (standard length).The two branch-off tracks correspond to track 6138, which also serves as the opposite curve.

Art. Nr.: 6160

Crossing 36°. Length of tracks 105 mm (= diagonal track 6102). The crossing tracks are electrically separated, so that two different track circuits can cross.

Art. Nr.: 6162

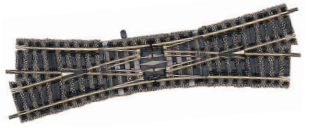
Left hand crossing 18°

The straight track is 200 mm long and the crossing track 210 mm long, crossing angle 18°. The crossing tracks are electrically separated, so that two different track circuits can cross.

Art. Nr.: 6163

Right hand crossing 18°

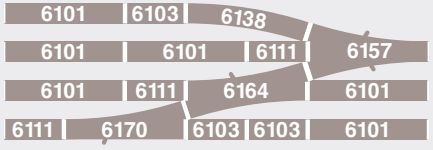
Art. Nr.: 6164



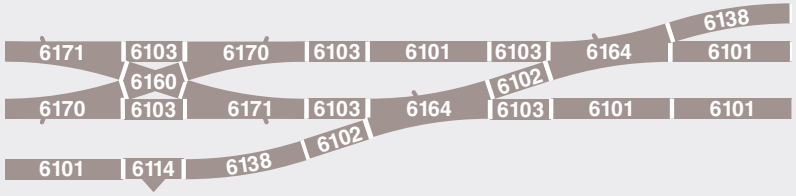
Double slip 18°, left hand crossing
for manual operation. The straight track is 200 mm long and the crossing track 210 mm long, crossing angle 18°.

Art. Nr.: 6165

Double slip 18°, right hand crossing
for manual operation. The straight track is 200 mm long and the crossing track 210 mm long, crossing angle 18°.



Three-way points and crossings



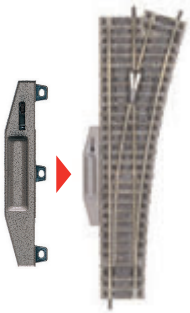
Points, accessories

Art. Nr.: 640000

Electromagnetic universal point motor with end-off switching. For all PROFI track points.

Prepared to accept the clip-in illuminated point signal 644020.

This point motor can be mounted above the baseboard surface, or even underneath the baseboard. It is then necessary to cut a hole in the baseboard to accommodate the point motor.



The point motor 640000 replaces the articles 644110 / 644210.

Art. Nr.: 644210

Point motor for PROFI track - rechts
Prepared to accept the clip-in illuminated point signal 644020.

Art. Nr.: 644020

Illuminated point signal
To clip onto point motor 640000.
(and former articles 644110 / 644210)

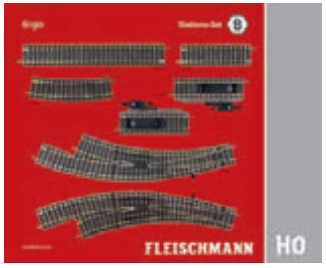
Art. Nr.: 6438

Illuminated point latern
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.

PROFI TRACK SETS

Station set B

Art. Nr.: 6190

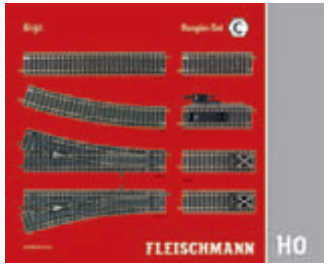


Contents:

8 straight tracks (7 x 6101, 1 x 6103),
2 uncoupler tracks 6114,
6 curved tracks 6122,
1 left hand curved point 6174,
1 right hand curved point 6175.

Shunter set C

Art. Nr.: 6191

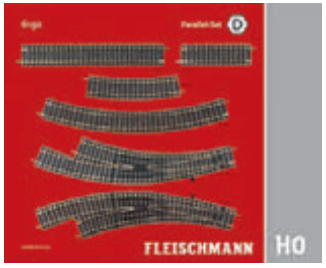


Contents:

7 straight tracks (6 x 6101, 1 x 6103),
1 uncoupler track 6114,
2 buffer stop tracks 6116,
2 curved tracks 6138,
1 left hand point 6170,
1 right hand point 6171.

Parallel set D

Art. Nr.: 6192

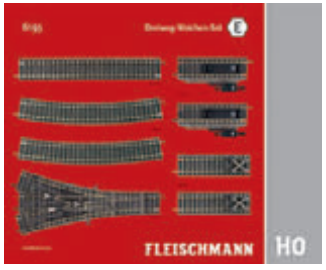


Contents:

13 straight tracks 6101
1 straight track 6103,
6 curved tracks 6125,
2 curved tracks 6127,
1 left hand curved point 6174,
1 right hand curved point 6175.

Three-way point set E

Art. Nr.: 6193



Contents:

10 straight tracks 6101,
2 uncoupler tracks 6114,
2 buffer stop tracks 6116,
2 curved tracks 6138,
1 three-way point 6157.

Platform set F

Art. Nr.: 6194

Contents:

11 straight tracks (10 x 6101, 1 x 6103),
2 uncoupler tracks 6114,
2 curved tracks 6138,
1 left hand point 6170,
1 right hand point 6171,
1 double slip 6164.

Electro set

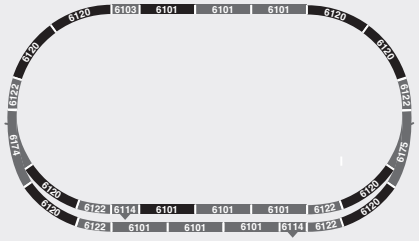
Art. Nr.: 619501

Contents:

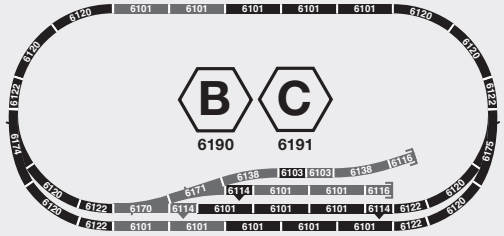
1 control switch 6920 for 2 points and 2 electric point motors.

One Electro Set is sufficient for the electrification of each track set 6190, 6191, 6192 and 6193. - 6194 requires two Electro Sets.

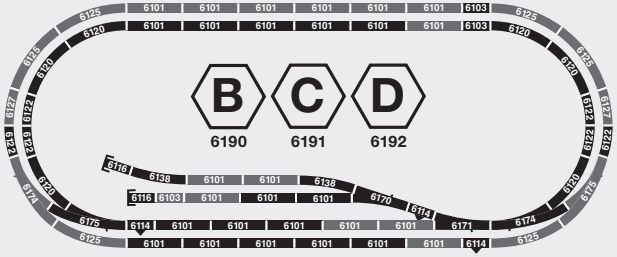
Expansion of a track oval with passing loop:



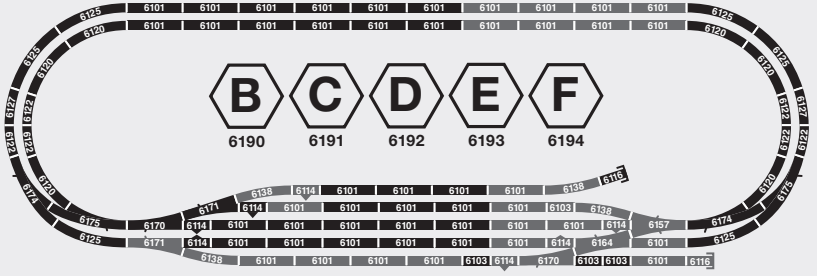
145 cm x 81 cm



175 cm x 81 cm

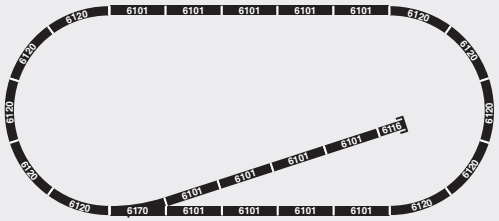


218 cm x 88 cm

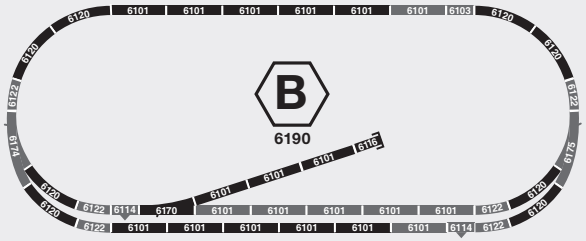


288 cm x 95 cm

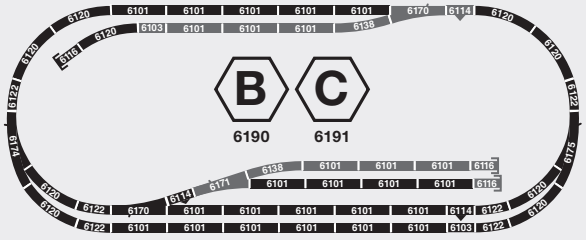
Expansion of a track oval with a turnout:



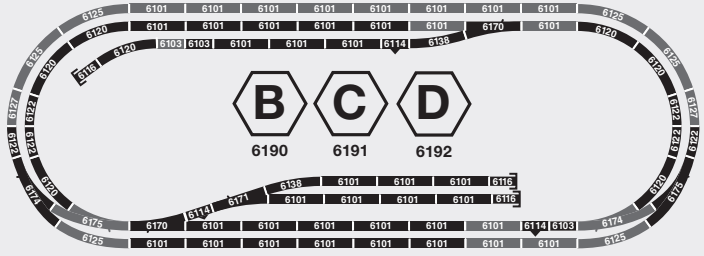
175 cm x 75 cm



205 cm x 81 cm



205 cm x 81 cm



248 cm x 88 cm

Art. Nr.: 6476

Locomotive Roundhouse (kit).

Suitable for use with the turntables 6152 and 665201.
3 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.

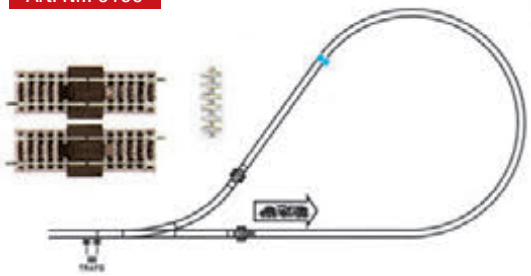
One set of doors is set at the rear of the shed to run straight through if desired.

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

Art. Nr.: 6197

Ungated level crossing for PROFI track
With rerailer and two cross bucks.
Track length: 100 mm.

Art. Nr.: 6199



Reverse loop set to deal with driving on reverse loops
The set consists of isolating joints and 2 directional track sections. Length: 100 mm each.
Can not be controlled digitally.

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.: 6152

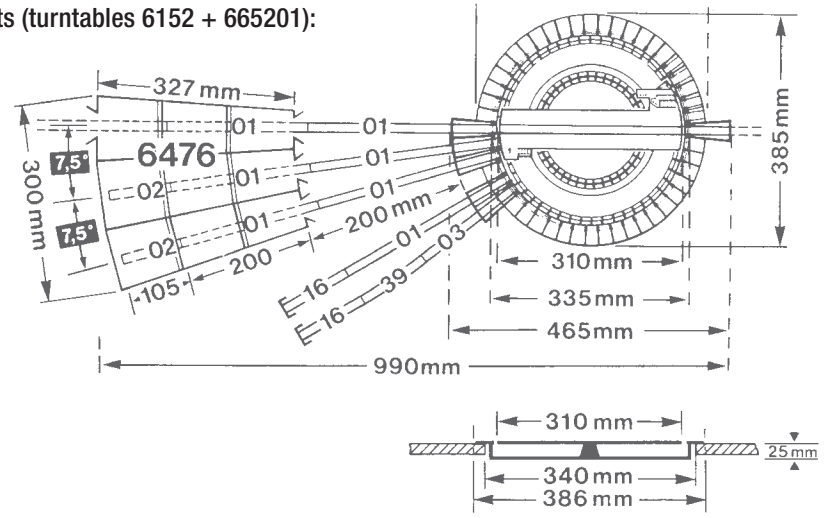
Electrically operated turntable, with electrically switchable track exits using the turntable control switch 6910. Length of the turning bridge: 310 mm.

The turntable is prototypically mounted in a recess and fitted with accurate details. 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 6153 right up to the complete 48 exits.

Fits to locomotive roundhouse 6476.

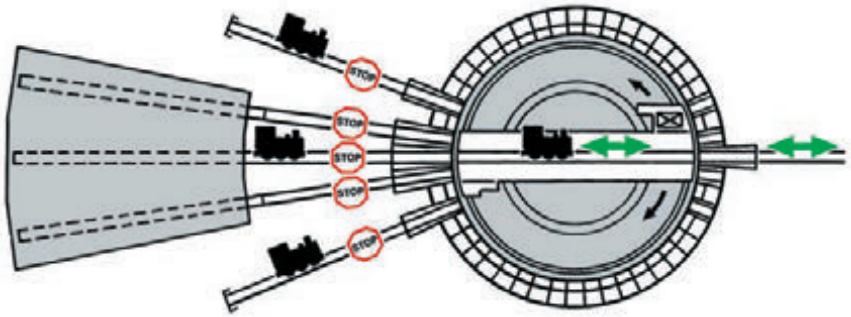
Measurements (turntables 6152 + 665201):



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):
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

Art. Nr.: 665201 ~

Photomontage

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.

Art. Nr.: 665301

Extension set for the AC turntable 665201

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

Art. Nr.: 6915

TURN-CONTROL

Turntable Controller with track pre-selection

For analogue and digital operation

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

TURN-CONTROL is suitable for operation wtih 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 180°, the turntable is protected against short circuit.

Art. Nr.: 6910

Turntable switch

To operate the electric turntables 6052 C, 6152 C, 6154 C with electrically switchable track exits.
Ø 63 mm

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.

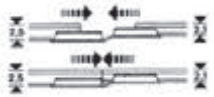
Art. Nr.: 6436

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
To connect Scale H0 tracks of 2.5 mm rail profile height with tracks of 2.1 mm rail profile height.
20 pc./pack.
By simply exchanging the standard mounted rail joints to the transitional rail joints 6437 you can adjust the turntable and the expansion set 6155 to track layouts of 2.1 mm high rail profiles.

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.

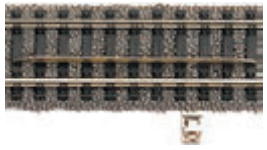
Art. Nr.: 6431

Track Feed Clip (1-pole)
Track feed clips can only be connected to the rail connectors on the corresponding rail joint such as infront or behind the electrical cut-off point or with signal circuits.

Art. Nr.: 9401

Connecting wire with flat contact springs
For train control operation of semaphore signals.

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.: 6435

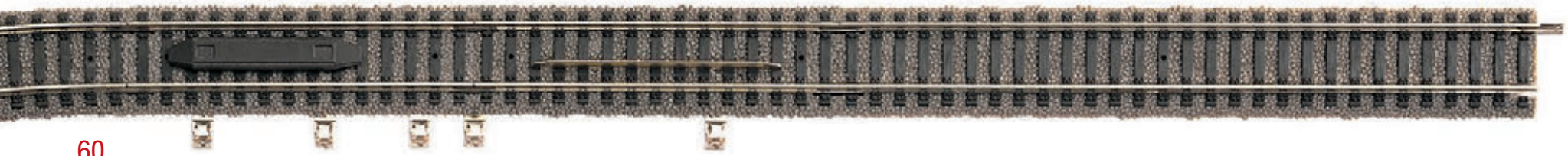
Switch contact
To trigger off electrical switching impulses up to a max. of 800 mA. Can be connected to the solenoid switches 942601 and 942701.

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.
Diametre: 5 mm, height 3 mm.



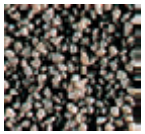
Art. Nr.: 6410

Wood-screws
To fasten tracks, rackrails, signals, relays and signal box parts.
144 pieces

Art. Nr.: 9409

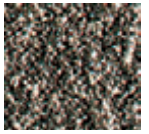
Track fixing nails
Nail length 7 mm (approx. 500 pcs.) in a plastic container.

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.

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.: 6480

Rerailer
Rerailer for locos and wagons (without vehicle shown).

Photo: FLM Archiv

Art. Nr.: 6554

DB AG logos for ICE vehicles
12 adhesive labels.

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.: 647001

H0 figure set
Figure set of 12 seated travellers.

DACHSER

Layout: "Miniatur Erlebniswelt"

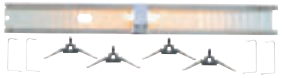
INTERIOR LIGHTING

Photo: FLM-Archiv

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

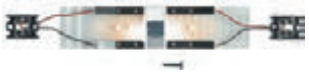
Art. Nr.: 6455

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 overall length approx. 130 mm.
Spare bulb: 00006535

Art. Nr.: 6459

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

INTERIOR LIGHTING

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.

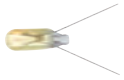
Art. Nr.: 00006538

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, 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.

Photo: Fleischmann Archiv

The 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 FILEISCHMANN 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.
This makes shunting manoeuvres really fun!

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) 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)

Photo: FLM-Archiv

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 12.9 mm - 14.6 mm.
10 pcs/pack

Art. Nr.: 648011
Outer diameter 10.3 mm - 12.8 mm.
10 pcs/pack. Suitable for loco class 36 (DC)

Art. Nr.: 648012
Outer diameter 10.3 mm - 12.8 mm.
10 pcs/pack. Suitable for loco class 36 (AC)

Art. Nr.: 6518

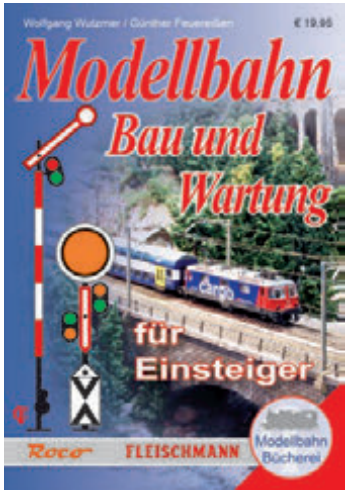
A pair of spare brushes and springs.

Art. Nr.: 6519

A pair of spare brushes and springs.

Photo: Michael Zirn Photography GmbH

Building and maintenance for beginners - German



Art. Nr.: 81388 Q3/2020

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.

Operate and switch for beginners - German

Art. Nr.: 81389 Q1/2020

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.

FLEISCHMANN H0 track plans with ballast bed - German

Art. Nr.: 81398

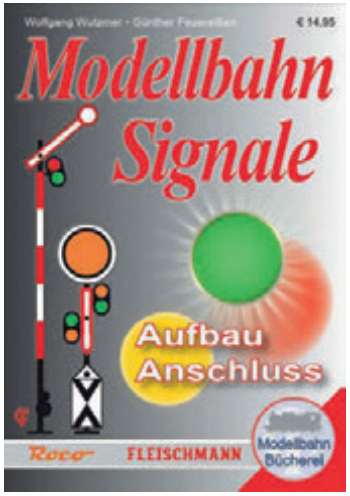
The track plan manual explains the geometry of the FLEISCHMANN PROFI tracks in scale H0. The manual gives some useful and practical ideas and also shows many track layouts and expansion options in details.
All featured track layouts are provided with layout designs and parts lists.

FLEISCHMANN N track plans with ballast bed - 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.

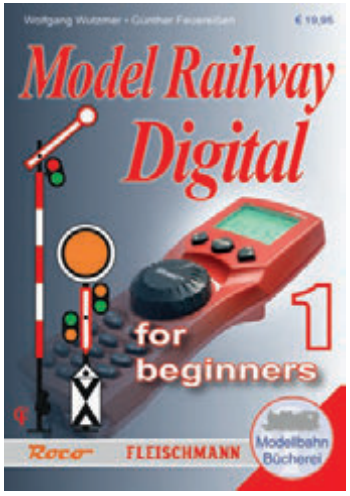
Signals - Setup and connection - German



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. Switching suggestiens have mainly been developped for DC railways, but most of them can also be used for AC railways with only slight adjustments.

Digital for beginners, Part 1 - German and English



Art. Nr.: 81395 German
Art. Nr.: 81391 English

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 2 - German

Art. Nr.: 81396

If you are driving and controlling digitally with the muliMAUS, you already know the advantages 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 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.

Accessories

Art. Nr.	Page
6101	52
6102	52
6103	52
6106	51
6107	52
6109	51
6110	52
6111	52
6114	52
6116	52
6117	52
6120	53
6122	53
6125	53
6127	53
6131	53
6133	53
6138	53
6139	53
6152	58
6153	58
6157	55
6160	55
6162	55
6163	55
6164	55

Art. Nr.	Page
6165	55
6170	54
6171	54
6174	54
6175	54
6178	54
6179	54
6190	56
6191	56
6192	56
6193	56
6194	56
6197	57
6199	57
6410	44/61
6412	52
6430	60
6431	60
6432	60
6433	60
6434	60
6435	60
6436	60
6437	60
6438	55
6444	52

Art. Nr.	Page
6445	64
6452	64
6454	64
6455	64
6458	64
6459	64
6469	64
6476	57
6479	61
6480	61
6509	66
6510	66
6511	66
6514	66
6515	66
6516	67
6517	66
6518	48
6519	68
6520	67
6521	66
6522	67
6523	67
6524	66
6526	67
6527	67

Art. Nr.	Page
6528	67
6554	61
6555	61
6560	68
6561	68
6562	68
6563	68
6570	67
6572	67
6574	67
6575	67
6576	67
6595	44/61
6599	44/61
6725	20
6735	20
6910	35/59
6915	35/59
6920	21
6921	21
6922	21
6923	21
6924	21
6925	21
6927	21
6928	21

Art. Nr.	Page
6940	21
6941	21
6950	21
6955	21
9100	30
9101	30
9102	30
9103	30
9104	30
9106	30
9108	30
9110	30
9112	30
9114	30
9115	30
9116	30
9119	30
9120	31
9122	31
9123	31
9125	31
9127	31
9128	31
9130	31
9131	31
9135	31

Art. Nr.	Page
9136	31
9152	34
9153	34
9157	33
9161	33
9162	33
9163	33
9168	32
9169	32
9170	32
9171	32
9174	32
9175	32
9178	32
9179	32
9184	33
9185	33
9189	28
9190	28
9191	28
9194	28
9196	29
9199	36
9400	44
9401	44/60
9403	44

Art. Nr.	Page
9404	44
9409	44/61
9414	30
9425	44
9456	45
9461	45
9475	35
9479	44/61
9480	44
9481	44
9499	36
9517	48
9520	46
9521	46
9522	46
9523	46
9525	46
9540	46
9541	46
9542	46
9543	47
9545	46
9549	47
9570	47
9571	47
9572	47

Accessories

Art. Nr.	Page
9573	47
9574	47
9577	47
9921	57
10000	43
10030	43
10753	9
10754	9
10756	9
10757	9
10758	9
10764	9
10765	9
10775	8
10789	8
10797	7
10804	7
10805	7
10806	7
10807	7
10808	7
10810	5
10813	5
10814	6
10818	6
10819	7

Art. Nr.	Page
10820	5
10822	5
10850	8
10851	8
10857	8
10887	18
10889	18
10890	18
10891	18
10892	18
10893	19
10894	19
10895	19
10896	19
20023	48
22200	38
22201	38
22202	39
22203	39
22204	39
22205	39
22206	39
22207	39
22210	39
22212	39
22213	43

Art. Nr.	Page
22214	43
22215	39
22216	43
22217	43
22218	43
22219	43
22220	39
22221	40
22222	40
22223	40
22224	40
22225	40
22226	40
22227	40
22228	40
22231	40
22232	40
22233	40
22234	40
22235	40
22240	43
22244	42
22245	42
22246	42
22247	42
22249	41

Art. Nr.	Page
22251	41
22253	41
22255	41
22261	41
22263	41
22265	41
22267	41
22273	41
22275	41
22301	42
22303	42
81388	70
81389	70
81391	71
81392	71
81393	71
81395	71
81396	71
81398	70
81399	70
96308	8
136100	9
386515	66
386516	67
389545	46
619501	56

Art. Nr.	Page
640000	33/55
644020	55
644210	55
647001	61
648001	68
648002	68
648003	68
648004	68
648005	68
648006	68
648007	68
648008	68
648009	68
648010	68
648011	68
648012	68
651581	66
665201	59
665301	59
670601	20
685101	17
685305	16
685404	16
685504	16
685602	17
686101	16

Art. Nr.	Page
686201	17
687701	17
919001	26
919002	26
919003	26
919004	26
919083	27
919084	27
919501	29
942601	44/60
942701	44/60
944001	33
944501	45
944701	45
945301	45
946501	45
946701	45
946901	45
948001	48
948002	48
948003	48
948005	48
948006	48
948007	48
948008	48
995101	36

Art. Nr.	Page
00006530	65
00006532	65
00006533	65
00006534	65
00006535	45/65
00006536	45/65
00006538	65
00006539	65
00009530	45/65
00009531	45/65
00066530	65
00066531	65
00066532	65
00066533	65
00066534	65
00066535	45/65
00066536	45/65
00069530	45/65

Newsletter

Subscribe to the FLEISCHMANN newsletter on **www.fleischmann.de** and stay informed about novelties, exclusive models and special series.

Ersatzteile

We also deliver spare parts!
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!

Social Media

Instagram

YouTube

To always stay up-to-date, visit us on **Facebook**, **Instagram** and **Youtube**, where you will find daily updates on our models and novelties.

Published by:
Modelleisenbahn München GmbH / Kronstadter Str. 4 / 81677 München, Germany
www.fleischmann.de

Photo credits:
Modelleisenbahn München GmbH, Fleischmann-Archiv, Michael Zirn Photography GmbH, Hannes Auer Fotografie GmbH, H. Gogg as well as other photographers that are credited next to the pictures.

Printing and processing:
Druckerei Berger, Wiener Straße 80, 3580 Horn, Austria

Copyright:
© 2019 Modelleisenbahn München GmbH. All rights reserved.
This catalogue including all its components such as data or images are protected by copyright law. Any use beyond the narrow confines of the copyright law without the consent of the Modelleisenbahn München GmbH is prohibited and liable to prosecution. This applies in particular to reproductions, translations, archiving on microfilm and the use and further processing in any electronic systems. The copying of the trade descriptions, trade brands, trade names or company names and other characteristics in this catalogue does not justify the assumption that those can be used by everbody free of charge.
It can rather be that they are registered trademarks or characteristics otherwise protected by law, even if these are not specifically marked up as such.

® Registered trademarks:
ROCO, FLEISCHMANN, FLÜSTERSCHLEIFER, ROCO LINE, GEOLINE, Z21, multiMAUS, smart RAIL
Trademark owner: Modelleisenbahn GmbH, Plainbachstrasse 4, 5101 Bergheim; Austria Article 10, 10a Trademark Protection Act (Gem. §§ 10, 10a MarkenSchG) entitles the trademark owner to prevent all third parties, who do not have his consent, from using in the course of trade the registered trademarks mentioned above.

Liability:
The Modelleisenbahn München GmbH strives to provide the content of this catalogue with the highest quality. Despite of our best effort and the best possible care, the Modelleisenbahn München GmbH is not liable and gives no warranty for the accuracy, the up-to-dateness of completeness of the contents and the information given in this catalogue. For eventual damages of material or immaterial nature that result from the use, the non-use or the withholding of faulty or incomplete information in this catalogue – as far as it is not founded in demonstrable intent and gross negligence on behalf of the Modelleisenbahn Müchen GmbH – no guarantee or liability can be accepted. The Modelleisenbahn München GmbH reserves the right to update the contents of the catalogue as well as the technical specifications of the contained products at any time. **Many models shown on the illustrations are photomontages and CAD drawings. The final and delivered version of the models may therefore differ from the depicted illustrations.** Electrical and mechanical data and dimensions may vary. Products from the series production may differ in detail from the depicted models. It may be possible that the depicted or described products in the catalogue are not available in your country. Availability and delivery options of the illustrated products are subject to change.

4 005575 198222
991924

FLEISCHMANN

Modelleisenbahn München GmbH
Kronstadter Str. 4
81677 München | Germany
www.fleischmann.de