

TT

Roco



2024

Novelties

Great in detail and technology

www.roco.cc

Roco



Dear TT fans,

this catalogue marks our entrance to the TT stage as a complete range supplier. As Kühn is now delivering injection moulding tools to ROCO, we can now offer you a wide range of products.

We would like to take this opportunity to thank you for your loyalty to the ROCO brand. It is the driver for the roughly 1,300 employees in our company, which drives us every day and is our motivation to become better and better, to make sure you are satisfied with the best hobby in the world.

Whether you are interested in the steam locomotives of the 38, 44 or 94 classes, electric locomotives, such as the well-known “dumpling press” or the beautiful 103 diesel locomotives of the V 100 East or V 60 West. Only a few wishes remain unfulfilled in the extensive range of forms. Supplemented by a wide range of passenger and freight wagons, as always authentic down to the last detail. For the first time, all models in this catalogue have our close coupling equipped on the TT tracks at the factory. Our range is rounded out by our own track system, which will be expanded step by step over the next few years.

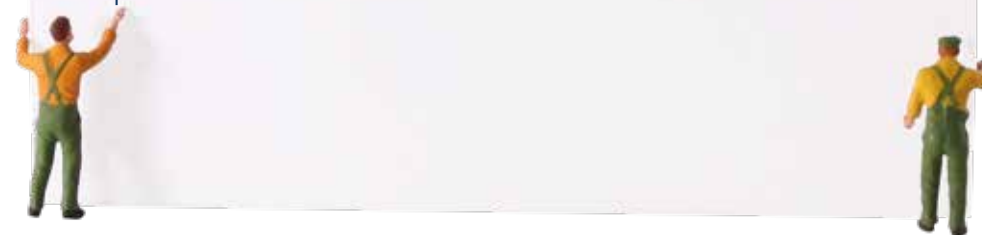
You will also be happy to hear that ROCO is back on the TT stage and has a few different colour versions of popular models as well as completely new designs up its sleeve.

We look forward to these wonderful miniature trains – join us!

**With warm regards,
Your ROCO Team**

Contents

Steam locomotives	4
Electric locomotives	8
Diesel locomotives	10
Passenger coaches	22
Goods wagons	32
Start Sets	34
Tracks & Accessories.....	35
Digital Control	45
Books	48
Where do I find what?	49
Imprint	50



Steam locomotive 38 2780



DRG



Ep	II
	156
	PluX16
	267 mm
	LED



Photomontage

The Prussian State Railway developed the type P8 passenger train locomotive to meet the increased demands of passenger train and express train traffic. Until 1924, a total of 3,561 units were built for German railways. The machines were real workhorses and ran not only passenger trains, but also express trains and freight trains.

- ▶ **Finely-detailed model with many separately attached plug-in parts**
- ▶ **Design with rivet tender and Witte smoke deflectors**
- ▶ **Stationed at Rbd Essen, Bw Essen Hbf**

2024		
7180002	DC	4/2
7190002	DCC	4/2

3-piece set: Passenger coaches “Altenberg”



DRG

Ep	II
471	



C4i-35



C4i-35



BC4i-35

Photomontage

For the Heidenau - Altenberg railway line (Müglitz Valley Railway), which was converted to standard gauge, the German State Railway needed coaches with a low dead weight and with an additional central entrance for quick passenger changes. In 1935/36, Linke-Hofmann first delivered four 3rd class test coaches (C4i-35) and two 2nd/3rd class coaches (BC4i-35), which were successfully tested in the Dresden area. The German State Railway then ordered a total of 30 BC4i-35 and 60 C4i-35 coaches. At normal capacity, the trains were made up of 3 passenger coaches (C4i + BC4i + C4i). During peak times, this configuration was doubled.

- ▶ Replica of the different lengths of the 2nd/3rd class and the 3rd class coach
- ▶ Ends with many attached parts such as ladders, signal holders, tread plates
- ▶ Finely-detailed design of the wagon floor and the brake system
- ▶ Suitable for steam locomotives class 38, art. no. 7180002, 7190002

2024
6280001



Steam locomotive 38 2471-1



DR



Ep	IV
	156
	PluX16
	267 mm
	LED



Photomontage

The steam locomotives of the 38 class were stationed in many depots of the German State Railway. The operations took place from there, mostly in passenger traffic with Reko coaches and other coach designs. Many locomotives had a classic design with rivet tender and Wagner smoke deflectors.

- ▶ **Finely-detailed model with many separately attached plug-in parts**
- ▶ **Design with rivet tender and Witte smoke deflectors**
- ▶ **Stationed at Railway Management Magdeburg, RoBlau depot**
- ▶ **Suitable for passenger coaches "Rekowagen", art. no. 6280002, 6280003**

2024		
7180001	DC	4/2
7190001	DCC	4/2

Electric locomotive 372 008-3



ČSD

Ep	IV
	140
	Next18
	286 mm
	LED



Photomontage

- ▶ Authentic replica of a classic Epoch IV design
- ▶ With individually switchable headlight or tail light in digital mode

2024		
7580003	DC	4/1
7590003	DCC	4/1

Electric locomotive 185 061-5



PRESS

Ep	VI
	158
	Next18
	286 mm
	LED



Photomontage

- ▶ Current operating condition after takeover of the locomotive from SBB-Cargo
- ▶ Elaborate roof design with four current collectors

2024		
7580001	DC	4/1
7590001	DCC	4/1



Photo: J. Kocourek

n:

For regional transport, the Czechoslovak State Railways procured two-axle diesel railcars of the M 152.0 class (from 1988: class 810). In October 1973, the prototype M 151 0001 built by Vagonka Tatra in Studénka was presented at the World Exhibition of Railway Technology in Basel. A total of 680 vehicles were built for the ČSD in seven series from 1975 onwards. They were accompanied by matching trailers of the type Blm (later called Baafx, Btax, BDtax, Bdtax, etc.), which were similar to the railcars in both construction and appearance. Two trailers could be added to each railcar. Due to their angular superstructures, the railcars were nicknamed “breadboxes” by railway enthusiasts, but the Czech nicknames “orchestron” or “kúfr”(= “suitcase”) also stuck.

The railcar features a lightweight design. At the end of each car body, separated from the driver’s cab, there is an entrance area with pneumatically closing sliding doors on both sides. The passenger compartment is equipped with 56 seats in a “3+2” arrangement with a central aisle. There is also space for around 40 standing passengers. The upper section of the windows in the passenger compartment features a folding design. The fronts have no transitions. At each end, the driver’s platform includes the driver’s console with instruments for controlling and checking the machinery, the driver’s brake valve, a speedometer and a safety driving switches. Large windscreens with heated windows, windscreen wipers and a sun visor ensure a good view of the track. The railcars were not equipped with multiple controls – the corresponding control cars did not exist. In the case of multi-part units, each railcar must therefore be manned by one driver. At the terminal stations, the vehicles must always be transferred to the front of the train.

After 1 January 1993, when Czechoslovakia was divided into the Czech Republic and Slovakia, the vehicles were divided between the newly founded state railways CD and ŽSR. Today, the vehicles in the Czech Republic belong to České dráhy (CD), while those in Slovakia are owned by ŽSR’s successor company, Železničná spoločnosť Slovensko (ŽSSK). Some railcars and trailers are now in service with private operators in the Czech Republic and Poland.

Diesel railcars

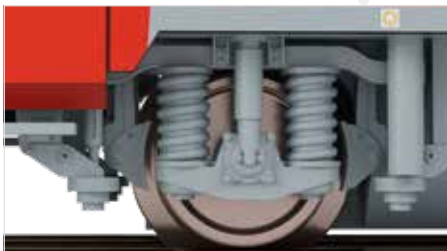
M 152, ČSD





Photo: J. Horstkamp

M 152 in detail



Finely-detailed engravings on the chassis



Prototypical roof design



Consistent replication of the characteristic front end



Separately attached handles under the buffers



Correctly implemented details on the wagon floor



Attached handle bars next to the doors

Diesel railcar M 152 0059 with trailer



ČSD

Ep	IV
	232
	Next18
	286 mm
	LED



Photomontage

► Colouring and labelling in accordance with the first delivery class



Photo: P. Kavan

2024				
7780001	DC	2/0		
7790001	DCC	2/0		

Diesel locomotive 781 505-3



ČSD

Ep	IV
	146
	NEM 651
	267 mm
	LED



Photomontage

2024		
7380002	DC	6/2
7390002	DCC	6/2

The ČSD received a total of 599 locomotives from the T 679 class from 1966 onwards. Some locomotives were manufactured as broad-gauge versions with designation T 679.5. The locomotives were mainly used to pull heavy freight trains.

- ▶ **Powerful, reliable model for prototypically long trains**
- ▶ **Finely detailed and printed model true to the original paintwork**
- ▶ **Design with sound absorbers**

Diesel locomotive 751 375-7



ČD

Ep	V
	138
	Next18
	286 mm
	LED



Photomontage

2024		
7380007	DC	4/1
7390007	DCC	4/1

The 751 class is a diesel-electric general-purpose locomotive. A total of 230 series locomotives were built for the ČSD in the CKD works in Prague in the years spanning 1966 to 1971. The locomotive achieves a top speed of 100 km/h. The 6-cylinder engine with turbocharger produces 1,500 hp.

Their applications ranged from international express trains to passenger trains and from heavy freight trains to "collectors" (shunting freight trains). They were also found in the border stations of the surrounding states. The protruding structures under the front windows quickly earned it the nickname "Bardotka", loosely named after Brigitte Bardot, the French actress.

- ▶ **Design of the third construction series featuring corrugated side walls up to the edge of the roof**
- ▶ **Red paintwork with yellow banderole**

Diesel locomotive 750 330-3



ČD CARGO

Ep	VI
	138
	Next18
	286 mm
	LED



Photomontage

The so-called “Taucherbrille” (diver’s goggles) or “Brillenschlange” (spectacled cobra) was developed and built at CKD in Prague. The class T 478.3 (from 1988 class 753) was supplied to the ČSD from 1970 onwards, and these 408 locomotives became a familiar sight on non-electrified main lines. Due to a lack of locomotives with electrical train heating, over 100 of these engines were retrofitted from 1991. The Reko locomotives received the new class designation 750, whereby the serial number remained the same.

- ▶ Used to haul passenger and freight trains up to German and Austrian border stations
- ▶ With cowcatchers included in closed form for realistic presentation in display cabinets

2024			
7380006	DC		4/1
7390006	DCC		4/1



Diesel locomotive 114 298-3



DR

Ep	IV
	116
	PluX16
	267 mm
	LED



Photomontage

2024		
7380001	DC	4/1
7390001	DCC	4/1

The original V 110 class was developed for passenger and freight train service and as a version for use in the DR shunting service. The maximum speed of this locomotive was 100 km/h with a power output of 1,000 hp. Between 1983 and 1991, new engines with nominal power 1,500 hp were fitted to some of the machines and re-designated as class 114.

- ▶ Painting in brown-red RAL colour
- ▶ Finely-detailed model with many separately attached plug-in parts
- ▶ Free-standing, delicately-crafted handle rails
- ▶ With switchable shunting light, individually switchable headlight or tail light in digital mode
- ▶ Stationed at Rbd Erfurt, Bw Saalfeld



Photo: F. Etzel/Eisenbahn Kurier

Diesel locomotive 120 101-1



DR

Ep	IV
	146
	NEM 651
	267 mm
	LED



Photomontage



- ▶ Early Epoch IV version without sound absorber
- ▶ Stationed at Railway Management Dresden, Karl-Marx-Stadt depot

2024			
7380003	DC		6/2
7390003	DCC		6/2

Diesell locomotive 132 146-2



DR

Ep	IV
	174
	PluX16
	267 mm
	LED



Photomontage

The design of the 132 class was derived from experience with the 130 and 131 class. The DR purchased 709 of the optimised locomotives with electric heating from the Voroshilovgrad Locomotive Works in the Soviet Union. The top speed was set at 120 km/h, the power of the versatile machine was 3,000 hp.

- ▶ Version in delivery condition
- ▶ Stationed at BD Cottbus, Cottbus depot
- ▶ With individually switchable headlight or tail light

2024				
7380004	DC		6/2	
7390004	DCC		6/2	



Diesel locomotive BR 232



EBS

Ep	VI
	174
	PluX16
	267 mm
	LED



Photomontage

For more than 15 years, railway company Erfurter Bahnservice has been offering extensive services with different traction types. In addition to hauling freight trains, special passenger trains are also available. In its vehicle factory in Karsdorf, much of the necessary work on the vehicle fleet is carried out by the company itself so the EBS can guarantee smooth operation for its customers.

- ▶ Use in freight transport in many parts of Germany
- ▶ With individually switchable headlight or tail light in digital mode

2024			
7380005	DC	6/2	
7390005	DCC	6/2	



Photo: M. Schrödter

Diesel railcar class 650



TRILEX

Ep	VI
	212
	Next18
	286 mm
	LED



Photomontage

2024				
7780002	DC		2/1	
7790002	DCC		2/1	

The Regio Shuttle RS1 railcar is designed as a vehicle for regional and suburban rail transit. The vehicles, which can travel at speeds of up to 120 km/h, can carry a maximum of 170 passengers, depending on the type. Characteristic of the Regio Shuttle are its diagonally arranged window struts. Stadler Rail AG has delivered more than 400 vehicles so far. In addition to Deutsche Bahn AG, many private railways use the RS1.

- ▶ Ideal for branch lines
- ▶ Elaborate interior fittings

Diesel railcar VT 69



VOGTLANDBAHN

Ep	VI
	212
	Next18
	286 mm
	LED



Photomontage

2024				
7780003	DC		2/1	
7790003	DCC		2/1	

The route network of the Vogtlandbahn covers southwestern Saxony with four lines from Plauen to Zwickau, Bad Brambach and Klingenthal. In the neighbouring regions, they extend as far as Gera in Eastern Thuringia as well as to Kraslice and Cheb in the Czech Republic and Hof in Upper Franconia. Some Stadler Regio Shuttle RS1 railcars are in operation along with other vehicles.

- ▶ Ideal for branch lines
- ▶ Elaborate interior fittings



Photo: N. Sandner

2-piece set 1: Passenger coaches



ČD

Ep	V
408	



A



B

Photomontage

2024
6280010

Applies for all carriages on this page:

- ▶ In operating condition typical for the end of the 1990s
- ▶ Suitable for steam locomotive class 751, art no. 7380007, 7390007



2-piece set 2: Passenger coaches



ČD

Ep	V
408	



B



BDs

Photomontage

2024
6280011

2-piece set 1: Passenger coaches



DR

Ep	IV
	408



Ame



Bme

Photomontage

2024
6280004

Applies for all carriages on this page:

- ▶ Finely-detailed models with separately attached plug-in parts
- ▶ Suitable for diesel locomotive BR 132, art. no. 7380004, 7390004

From 1970, the German State Railway procured the coaches with Y/B 70 design, an advanced model of the UIC-Y coaches. These were compartment coaches for express train transport. Until the 1980s, these trains remained the preferred vehicles for the transit trains from Berlin – Western Germany, and for other international long-distance trains. They were also regular visitors to Western Germany as part of the Inter-Zone trains.

2-piece set 2: Passenger coaches



DR

Ep	V
	408



Bme



BDmse

Photomontage

2024
6280005

4-piece set 1: Reko coaches



DR

Ep	IV
----	----

436



Baage



Baage



Baagre



Baage

Photomontage

- ▶ All coaches with patch paint
- ▶ Suitable for steam locomotive class 38, art. no. 7180001, 7190001 and steam locomotive class 112, art. no. 7380001, 7390001

2024

6280002

2-piece set 2: Reko coaches



DR

Ep	IV
----	----

218



Baage



Baage

Photomontage

- ▶ One coach with patch paint
- ▶ One coach in lighter green

2024

6280003



2-piece set 1: Double-decker coaches



DR

Ep	IV
	446
	LED



DBmq



DBmue

Photomontage

2024	
6280006	DCC



► Controller car with function decoder for white/red light changes in analogue and digital mode

In 1971, VEB Waggonbau Görlitz delivered two prototypes of the double-decker individual coach to the DR. The double-decker individual coaches were expected to be more flexible in adapting to changing passenger volumes and to reduce damage. After extensive testing of the two prototypes, an initial series of around 138 vehicles was delivered from 1974. The lower floor of this coach was completely equipped with seats. It was first used in the southern urban centres and routes with high traffic volumes.

2-piece set 2: Double-decker coaches



DR

Ep	IV
	446



DBmue



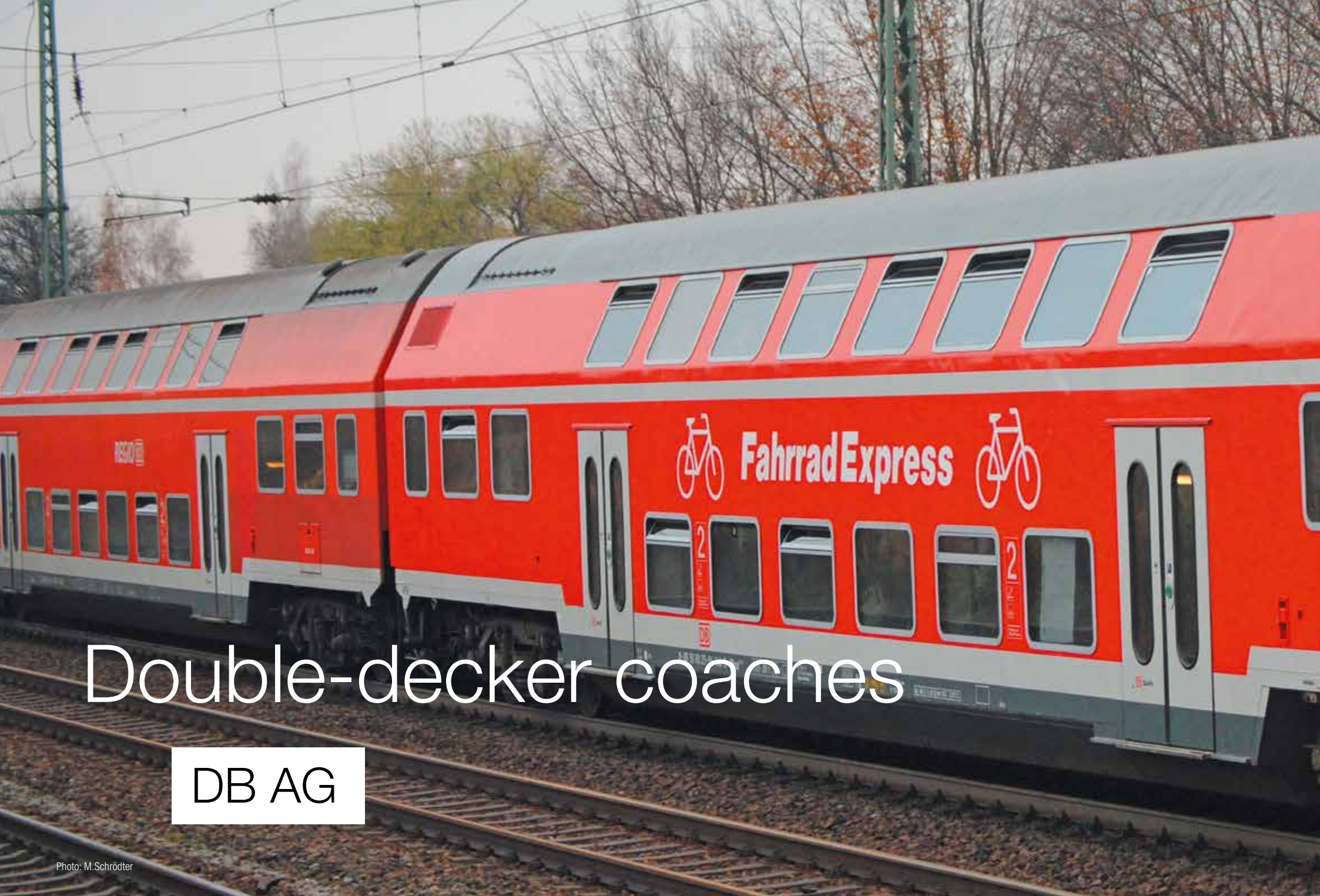
DBmue

Photomontage

2024	
6280007	



Photo: J. Horstkamp



Double-decker coaches

DB AG

n:



After the German State Railway initially used fixed-coupled articulated trains with double-decker coaches, they were rebuilt for practical reasons. In 1971, VEB Waggonbau Görlitz delivered two prototypes of the double-decker individual coach to the German State Railway. The double-decker individual coaches were expected to be more flexible in adapting to changing passenger volumes and to reduce damage. After extensive testing of the two prototypes, an initial series was delivered from 1974. Another series followed from 1977 to 1979. The last vehicles of this type were put into service between 1986 and 1991. It was first used in the southern urban centres and routes with high traffic volumes.

The first extensive modernisations of this coach series began in 1992. They were equipped with additional windows, new interior fittings and, when closed, swivel-sliding doors flush with the outside wall. The control cars were rebuilt in the same way, and a 1st class compartment was installed behind the driver's cab.

With the founding of DB AG at the beginning of 1994, most of the wagons were adopted. The last stage of the conversion was a complete modernisation of the wagons. From 1997 onwards, quite a few control cars received new front sections made of GRP parts. The "DR-Dostos" trains were given the appropriate painting depending on the respective conditions. Since then, all wagons have the traffic red paintwork. The main area of operation was and is the eastern German states.

Electric locomotive 146 014-6



DB AG

Ep	VI
	158
	Next18
	286 mm
	LED



Photomontage

- ▶ Suitable for double-decker wagon, art. no. 6280008, 6280009
- ▶ With individually switchable headlight or tail light in digital mode

2024		
7580002	DC	4/1
7590002	DCC	4/1

2-piece set 2: Double-decker coaches



DB AG

Ep	VI
	446



DBuza

CAD-Zeichnung

- ▶ Swing-sliding doors flush with the outer wall and new interior fittings



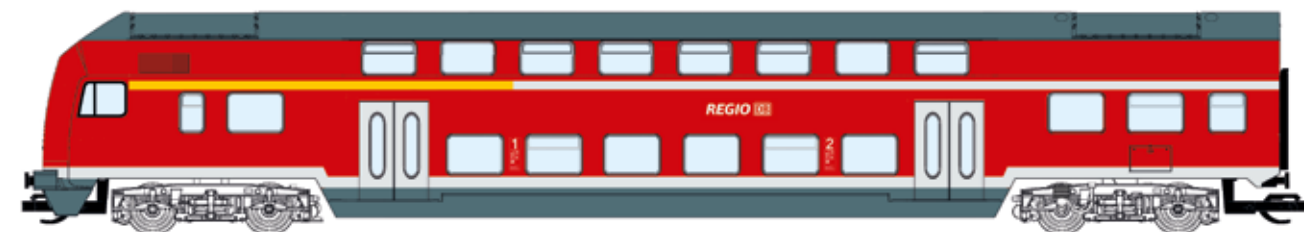
2024
6280009

2-piece set 1: Double-decker coaches

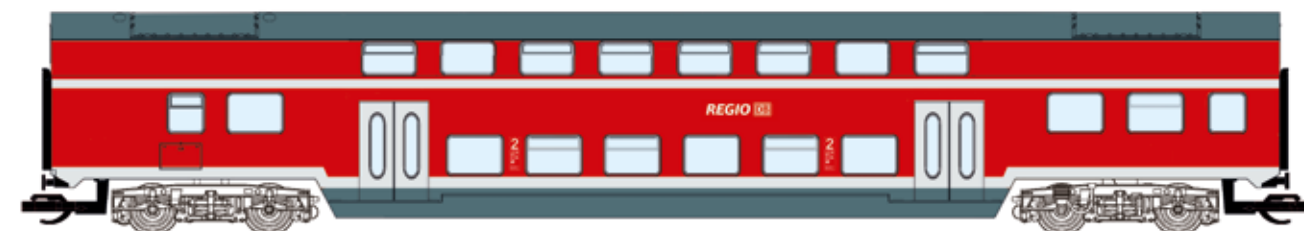


DB AG

Ep	VI
	446
	LED



DABbuzfa



DBuza

CAD-Zeichnung

- ▶ Controller car with function decoder for white/red light changes in analogue and digital mode
- ▶ Second modernisation stage with new head shape
- ▶ Swing-sliding doors flush with the outer wall and new interior fittings

2024

6280008

DCC



Photo: C. Topp

3-piece set: Funnel flow tank wagons



DR

Ep	IV
⇄	342



ZZhs

Photomontage

▶ With many separately attached plug-in parts

2024
6680001

2-piece set: Telescopic covered wagons



DR

Ep	IV
⇄	200



Shimmns

Photomontage

▶ For transporting aluminium and steel coils
▶ Ideal for the formation of block trains

2024
6680009

Sliding-wall wagon



DR

Ep	IV
⇄	129



Hbbilns

Photomontage

2024
6680003

2-piece set: Sliding tarpaulin wagons



WASCOSA

Ep	VI
⇄	200



Shimmns

Photomontage

▶ Wagon sides prototypical with different lettering in German and English

2024
6680006

2-piece set: Funnel flow tank wagons



GATX

Ep	VI
⇄	228



Zaes

Photomontage

► Design with engraved lettering panels

2024
6680002

2-piece set: Sliding tarpaulin wagons



ÖBB/RCW

Ep	VI
⇄	200



Shimmns

Photomontage

► Ideal for the collection of complete train sets

2024
6680007

Sliding-wall wagon



ČD

Ep	V
⇄	129



Hbbilns

Photomontage

2024
6680004

2-piece set: Telescopic covered wagons



PKP CARGO

Ep	VI
⇄	200



Shimmns

Photomontage

► With different running numbers
► For transporting aluminium and steel coils
► Ideal for the formation of block trains

2024
6680008

z21 start digital set: Diesel locomotive ER 20 of the SETG with freight train



SETG/ŽSSK

Contents:

- 1 diesel locomotive ER 20
- 3 sliding tarpaulin wagons
- 1 z21 start
- 1 Z21 multiMAUS
- 1 mains plug

TT track oval:

12 curved tracks R130, 10 straight tracks G128, 1 connection terminal
 Space requirements: approx. 140 x 75 cm



Photomontage

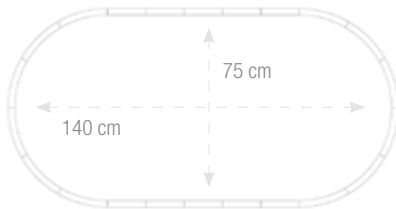


Photo: M. Schmid

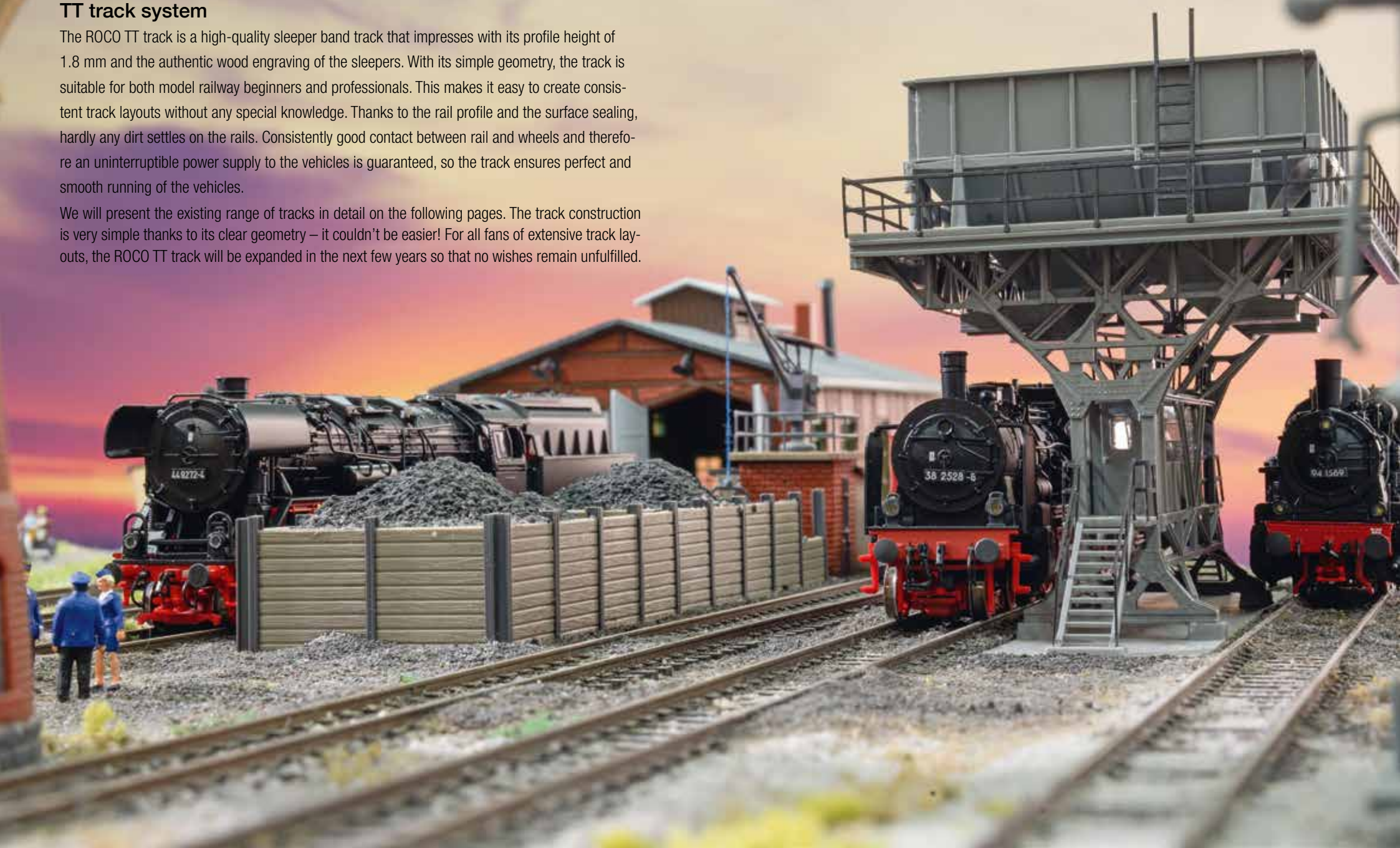
2024

5190001

TT track system

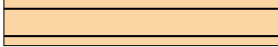

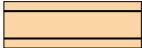


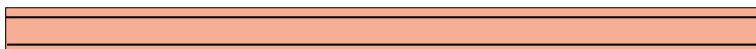
The Roco TT track is a high-quality sleeper band track that impresses with its profile height of 1.8 mm and the authentic wood engraving of the sleepers. With its simple geometry, the track is suitable for both model railway beginners and professionals. This makes it easy to create consistent track layouts without any special knowledge. Thanks to the rail profile and the surface sealing, hardly any dirt settles on the rails. Consistently good contact between rail and wheels and therefore an uninterrupted power supply to the vehicles is guaranteed, so the track ensures perfect and smooth running of the vehicles.

We will present the existing range of tracks in detail on the following pages. The track construction is very simple thanks to its clear geometry – it couldn't be easier! For all fans of extensive track layouts, the Roco TT track will be expanded in the next few years so that no wishes remain unfulfilled.




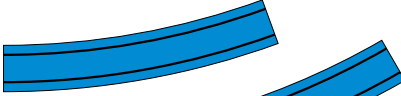



All track elements at a glance

Straight tracks


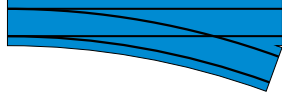
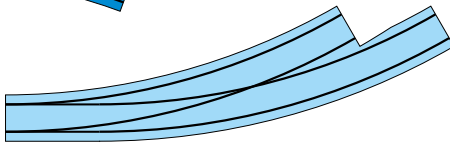
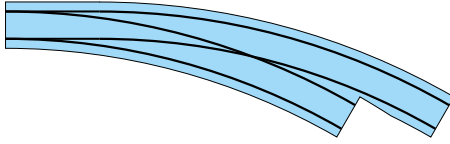
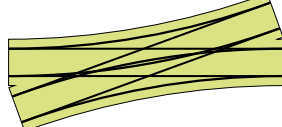
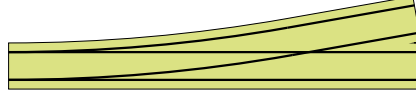
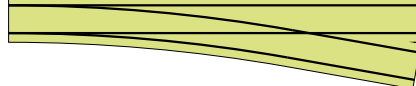
- G128**
 Length 128,7 mm

- G121**
 Length 121 mm

- G64**
 Length 64,3 mm

- G60**
 Length 60,5 mm

- G44**
 Length 44 mm

- G640**
 Flexible track
 640 mm


Curved tracks

- R110**
 Curved track R1, 10°

- R130**
 Curved track R1, 30°

- R210**
 Curved track R2, 10°

- R220**
 Curved track R2, 20°

- R230**
 Curved track R2, 30°


Turnouts

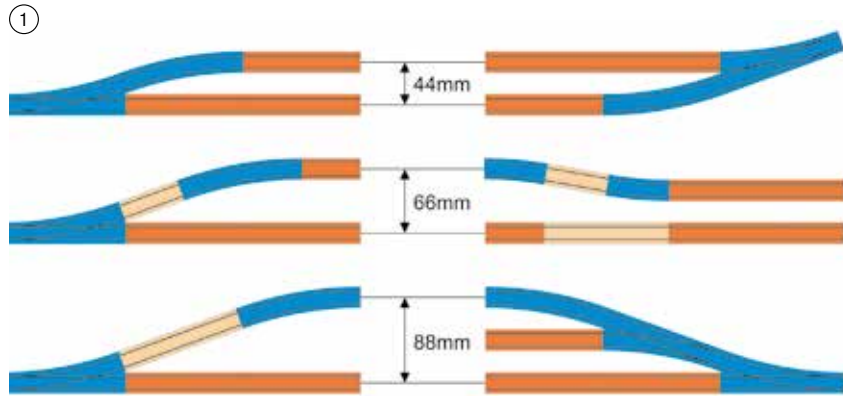
All ROCO TT turnouts can be operated manually as well as electrically. The turnouts are equipped with an integrated snap mechanism at the factory so that the switch blades always remain in the selected position. With the ROCO turnout drive, motorising the turnouts couldn't be simpler. This means that even winding turnout routes are no longer a problem.

- WL20**
 Turnout left

- WR20**
 Turnout right

- BWL**
 Curved turnout left

- BWR**
 Curved turnout right

- DKW**
 Double slip turnout

- WL10**
 Turnout left, thin

- WR10**
 Turnout right, thin


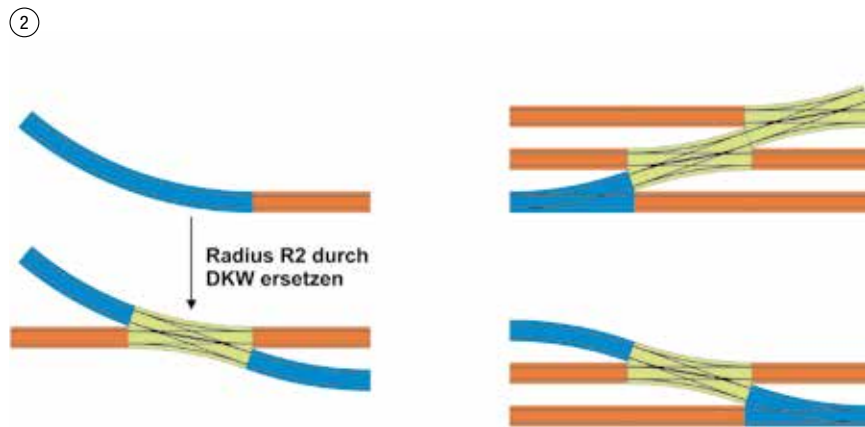
Perfect combination

We will use some examples to demonstrate how the individual elements of the TT track system can be combined with each other.

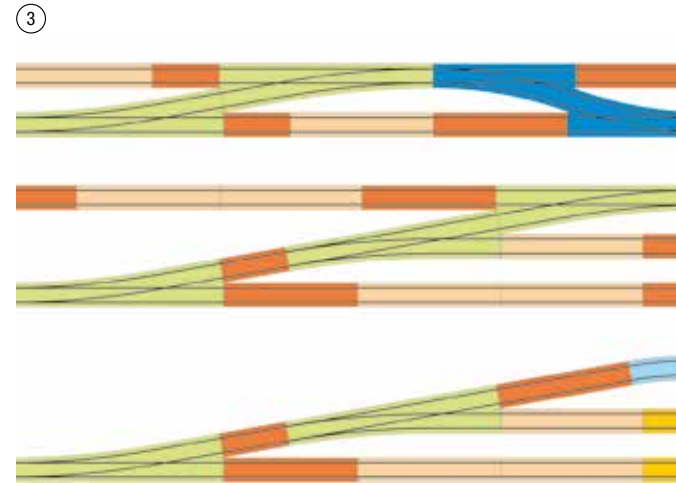
Example 1 with single turnouts



Example 2 with single turnouts and double diamond crossings (DDC)

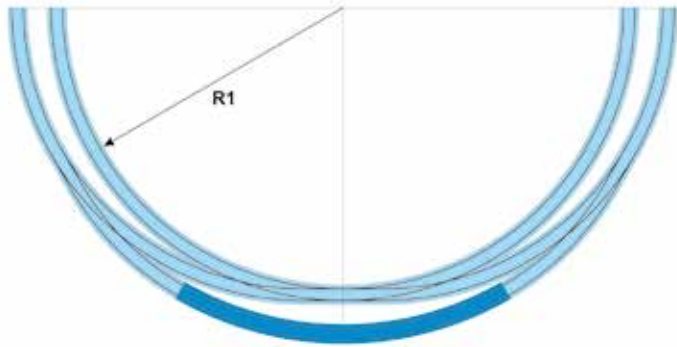


Example 3 with thin turnouts



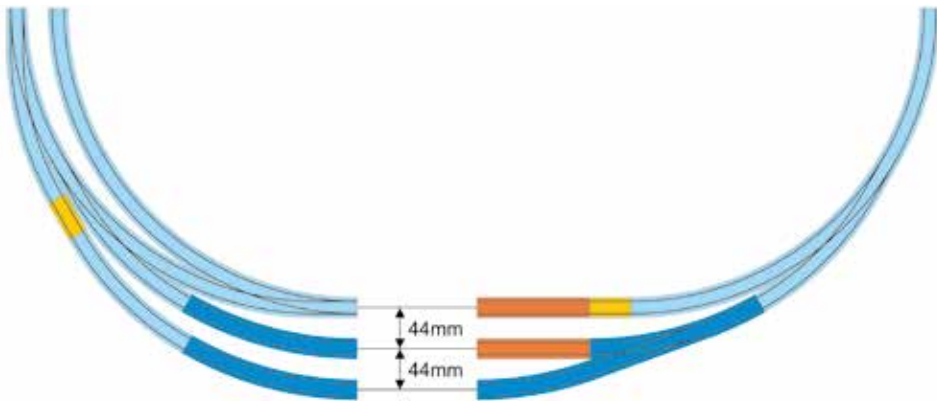
Example 4 with curved turnouts





Example 5 with single turnouts and curved turnouts

⑤



Straight tracks

4080100

Straight track G44

Length 44,0 mm.



4080101

Straight track G60

Length 60,5 mm.

Half length of G121.



4080102

Straight track G64

Length 64,3 mm.

Half length of G128.



4080103

Straight track G121

Length 120,96 mm.

Compensating line for straight turnouts and double diamond crossings.



4080104

Straight track G128

Length 128,7 mm (Standard length).



4080105

Flex track G640

Length 640 mm.



Curved tracks

4080110

Curved track R1 10

Radius 321 mm (R1), 10°.

R1



4080130

Curved track R1 30

Radius 321 mm (R1), 30°.

R1



12 pieces are needed for a complete circle.

4080210

Curved track R2 10

Radius 365 mm (R2), 10°.

R2



4080220

Curved track R2 20

Radius 365 mm (R2), 20°.

R2



Curved track R2 20 is used as an opposing arc to 20° turnouts and double diamond crossings.

4080230

Curved track R2 30

Radius 365 mm (R2), 30°.

R2



12 pieces are needed for a complete circle.

4080410

Left-hand turnout WL10

Length 193 mm (= G128 + G64), branch angle 10°, branch radius 758 mm.

With integrated snap mechanism so the switch blades remain in contact with the selected position. This means they do not need an extra manual drive.

Suitable drives:

32418 (electrical turnout drive on left)

10030 (underfloor drive). The metal frog can be polarised together with the underfloor drive.



4080411

Right-hand turnout WR10

Design like 4080411.

Suitable drives:

32419 (electrical turnout drive on right),

10030 (underfloor drive). The metal frog can be polarised together with the underfloor drive.



4080420

Left-hand turnout WL20

Length 128,7 mm (standard length), branch angle 20°, branch radius 365 mm, frog angle 14.7°.

With integrated snap mechanism so the switch blades remain in contact with the selected position. This means they do not need an extra manual drive.

Suitable drives:

32418 (electrical turnout drive on left),

10030 (underfloor drive). The metal frog can be polarised together with the underfloor drive.



4080421

Right-hand turnout WR10

Design like 4080420.

Suitable drives:

32419 (electrical turnout drive on right),

10030 (underfloor drive). The metal frog can be polarised together with the underfloor drive.



4080460

Left-hand curved turnout BWL

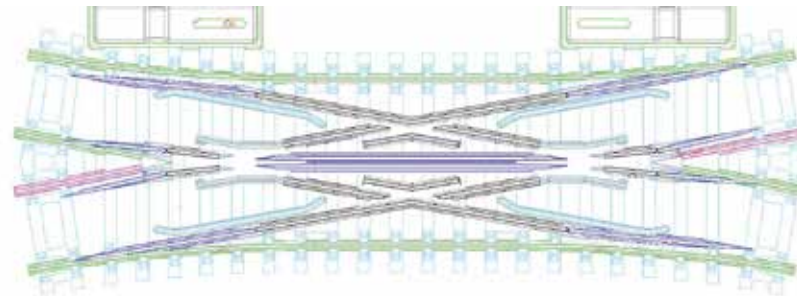
Radius of the main track and the branch track 321 mm (R1).
 With integrated snap mechanism so the switch blades remain in contact with the selected position. This means they do not need an extra manual drive.
 Suitable drives:
 32418 (electrical turnout drive on left),
 10030 (underfloor drive). The metal frog can be polarised together with the underfloor drive.



4080461

Right-hand curved turnout BWR

Radius of the main track and the branch track 321 mm (R1).
 With integrated snap mechanism so the switch blades remain in contact with the selected position. This means they do not need an extra manual drive.
 Suitable drives:
 32419 (electrical turnout drive on right),
 10030 (underfloor drive). The metal frog can be polarised together with the underfloor drive.



CAD-Entwurf

4080800

Double diamond crossings DKW20

Length 128,7 mm (standard length), crossing angle 20°, branch radius 365 mm.
 Suitable drives (2 pieces each are needed):
 32418 or 32419 (electrical turnout drive)
 10030 (underfloor drive).



ROCO Clean track cleaning wagon



DR

129



Hbbllns

Photomontage

► Perfect rail cleaning without much effort

6680005

4081720



Rail connector
30 pieces/package

4081730



Insulating rail connector
30 pieces/package

4081722



Transition rail connector
Stepped spring steel rail connector for connecting rail profiles with different profile heights.
10 pieces/package

32418



32419



Turnout mechanisms
Double spool motor with shut-off mechanism. Can be used as replacement as well as for later upgrading of manual or under-baseboard turnouts.

10030



Below baseboard turn-out mechanism
Can be used for all ROCO rail systems. 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

4081710



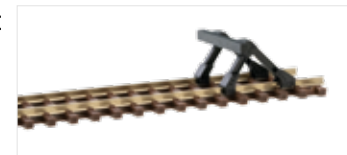
Connection terminal
Connection terminal for connection to straight track G121 or curved track R130.

Note: There is an anti-interference capacitor in the junction box. It must be removed when using a digital control unit!

4081750



Bumper construction kit
With wood plank
Contents: 2 pieces



4081900



Close coupling heads, large package
For standard shaft coupler pocket according to NEM 358.
Contents: 24 pcs/pkg.

Electric turntable for gauge TT. Comes with 6 ascent-descent tracks and one turntable switch.

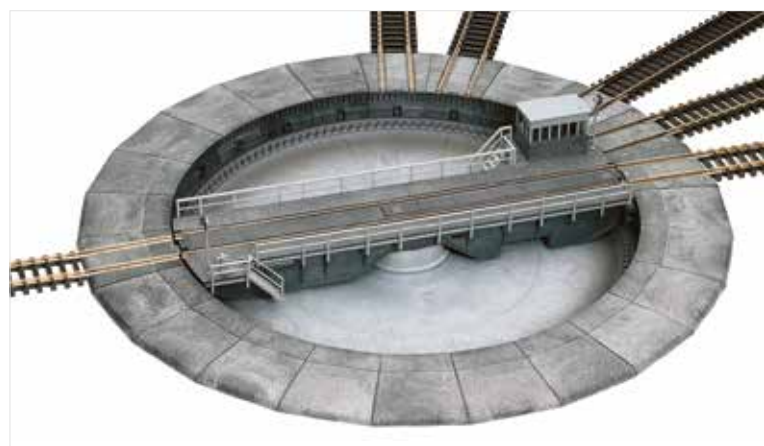
35900

The basic equipment for the turntable consists of 6 exit or departure tracks. The number and arrangement of the exit tracks can be changed at any 15° angle.

Installation dimensions:

- Installation diameter: 203 mm
- Installation depth: approx. 25 mm
- Exterior diameter without track outlets: 257 mm
- Platform length: 183 mm (Suitable for locomotives with a wheel base length up to a 170 mm)

Note: By simply replacing the rail connectors installed as standard with 4081722 transition rail connectors, you can adapt the turntable and the 35901 supplementary set to the ROCO TT track system with 1.8 mm high rail profiles.



35901

Complementary set for the turntable 35900

The set consists of 3 ascent/descent tracks. A maximum of 24 tracks can be connected to the turntable.



Z21 System

z21 start

Available in starter sets



without z21 WiFi Package

 in combination with
z21 WiFi Package

10814/10818


z21

Available in starter sets



inkl. WiFi Router

Z21

10820



inkl. WiFi Router

Z21 XL Series

10870



inkl. WiFi Router

Plug & Play System	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2 X-Bus ports on the front	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1 X-Bus port on the back	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DCC & MM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
POM programming, POM reading, CV programming and CV reading	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B-Bus and R-Bus	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Configurable with the Maintenance Tool	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Steering conveniently via Z21 app and various hand held controllers	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Photorealistic driver's cabs on Android tablets and iPads	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
LocoNet and Sniffer Bus port	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CAN-Bus – enables the convenient configuration of new Z21 components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Possibility to set the track voltage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Separate programming track output with Zimo- Decoder-Update-Process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Gauges	N – H0	N – H0	N – H0	N – H0	0 – 2

Z21 digital control centre

10820

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.

Contents:

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



Z21 multiMAUS

10835

The Z21 multiMAUS is a digital control system that allows you to control your trains, use the digital functions, switch points and signals, and general programming. It gives you complete control over your layout. The clear design together with the simple operation makes the Z21 multiMAUS the benchmark for digital model railway controllers, not just for beginners. Thanks to the illuminated display and large buttons, operation is clear and simple. The rotary knob also allows you to control your locomotives precisely. The snapping zero point provides feedback about the current knob position, without taking your eye off the system.

The possibilities

- ▶ 64 loco addresses with 5-character names
- ▶ Up to 29 functions can be activated per locomotive
- ▶ Up to 1.024 magnetic items switchable
- ▶ Write and read configuration variables (DCC CVs)



Z21 WLANMAUS

10813

Control unit with many operation functions. Several Z21 WLANMAUS can be simultaneously operated – possible with all Z21 systems (z21 start combined with WiFi Package 10814 or 10818): The Z21 WLANMAUS gives you wireless freedom around your layout. For model train fun with more than one person, several Z21 WLANMAUS devices can be operated in the system at a time.

Additional features of the Z21 WLANMAUS:

- ▶ Wireless freedom with WLAN
- ▶ 29 functions per locomotive
- ▶ Database for 100 locomotives or 10 routes with 10-character names
- ▶ Operation with standard batteries or rechargeable (3x AAA)
- ▶ Up to 2.048 magnetic items switchable

Z21
www.z21.eu

z21 start base digital set

10833

Contents:

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



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

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

Z21 professional digital set

10834

Contents:

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



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

www.z21.eu



z21 WiFi package

10814

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

FOR **z21 start**



z21 unlock code

10818

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

FOR **z21 start**



Digital for beginners, Part 1.1

81385



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

Digital for beginners, Part 2.1

81386



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

Digital for beginners, Part 3

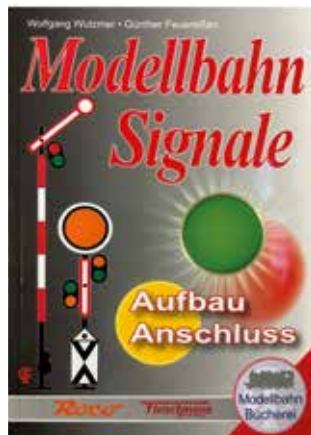
81393



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

Signals

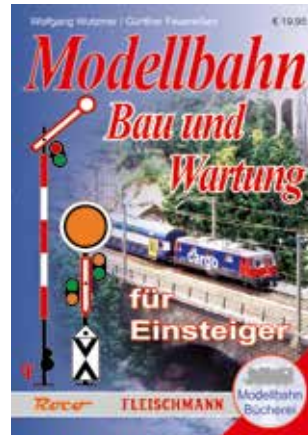
81392



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

Building and Maintenance

81388



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

81389



This brochure will help you to operate and connect your model railway layout. Locomotives, trains, switches, signals, gates and all sorts of accessories - everything is kept moving, everything is put into operation by electricity.

Step by step and almost playfully you will learn how to face the electrical challenges of your layout and to solve all your problems.

Art. Nr.	Seite	81393	48	4081710	43	6680002	33	7390001	16
10030	43	4080100	39	4081720	43	6680003	32	7390002	14
10813	46	4080101	39	4081722	43	6680004	33	7390003	17
10814	47	4080102	39	4081730	43	6680005	43	7390004	17
10818	47	4080103	39	4081750	43	6680006	32	7390005	19
10820	46	4080104	39	4081900	43	6680007	33	7390006	15
10833	47	4080105	39	5190001	34	6680008	33	7390007	14
10834	47	4080110	40	6280001	5	6680009	32	7580001	8
10835	46	4080130	40	6280002	24	7180001	7	7580002	30
10870	45	4080210	40	6280003	24	7180002	4	7580003	8
32418	43	4080220	40	6280004	23	7190001	7	7590001	8
32419	43	4080230	40	6280005	23	7190002	4	7590002	30
35900	44	4080410	41	6280006	26	7380001	16	7590003	10
35901	44	4080411	41	6280007	26	7380002	14	7780001	13
81385	48	4080420	41	6280008	31	7380003	17	7780002	20
81386	48	4080421	41	6280009	30	7380004	17	7780003	20
81388	48	4080460	42	6280010	22	7380005	19	7790001	13
81389	48	4080461	42	6280011	22	7380006	15	7790002	20
81392	48	4080800	42	6680001	32	7380007	14	7790003	20



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Country Code

 Austria (A)	 Italy (I)
 Belgium (B)	 Luxembourg (L)
 Bosnia/Herzegovina (BIH)	 The Netherlands (NL)
 Canada (CAN)	 Norway (N)
 Switzerland (CH)	 Poland (PL)
 Czech Republic (CZ)	 Romania (RO)
 Germany (D)	 Russia (RUS)
 Denmark (DK)	 Sweden (S)
 Spain (E)	 Slovak Republic (SK)
 France (F)	 Slovenia (SLO)
 Hungary (H)	 United States (US)

Epochs

Ep	I	Epoch I: approx. 1870 – 1920
Ep	II	Epoch II: approx. 1920 – 1945
Ep	III	Epoch III: approx. 1945 – 1968
Ep	IV	Epoch IV: approx. 1968 – 1994
Ep	V	Epoch V: 1994 – 2006
Ep	VI	Epoch VI: since 2007

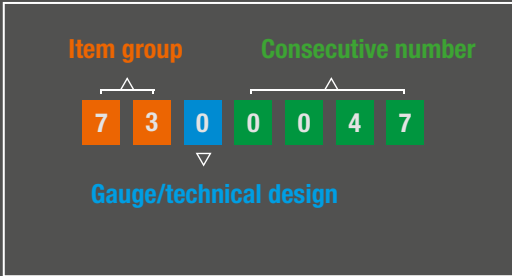
Railway administrations

K.K.St.B.	Imperial Royal State Railways
BBÖ, ÖBB	Austrian Federal Railways
SNGB	National Railway Company of Belgium
SBB	Swiss Federal Railways
K.P.E.V.	Royal Prussian Railway
K.Bay.Sts.B	Royal Bavarian State Railways
DRG	German State Railway Company (until 1937)
DRB	German State Railway (1937-1949)
DR	German State Railway
DB	German Federal Railways (1951-1993)
DB AG	German Railways AG (since 1.1.1994)
DSB	Danish State Railways
RENFE	Spanish Railways
SNCF	National French Railways
MÁV	Hungarian State Railways
FS	Italian State Railways
NSB	Norwegian State Railways
SS, NS	Dutch State Railways
PKP	Polish State Railways
SJ	Swedish State Railways
RŽD	Russian Railways
ČSD	Czechoslovak State Railways (1919-1992)
ČD	Czech Railways
ŽSR	Railways of the Slovak Republic (1993-2004)
ŽSSK	Railways of the Slovak Republic (since 2005)
CFL	Luxembourg National Railways
SŽ	Slovenian Railways
SŽD	Railways of Soviet Russia

Explanation of symbols

	Item number
	Release: 1st-4th quarter of the same year
	Epoch
	Overall length
	Direct current (without decoder)
	Direct current (Digital version ex-works with decoder)
	Direct current (Digital version ex-works with sound decoder)
	Alternating current (Digital version ex-works with decoder)
	Alternating current (Digital version ex-works with sound decoder)
	Drive on X-axles / X-axles have traction tyres
	Cardan shaft drive in the tender of the locomotive
	White head lights changeover or white-red head light changeover
	Head light changeover according to the original model (e.g. Swiss)
	LED illumination / Electric illumination (light bulbs)
	6-pole wire connector for the decoder
	6-pole interface NEM 651
	8-pole interface NEM 652
	Interface PluX16
	Interface PluX22
	Interface Next18
	Minimum drivable radius
	Buffer capacitor
	Interior lighting / Interior lighting retrofit kit
	AC wheel set
	Digital shunting coupling
	Dynamic steam from the chimney
	Steam generator ("Seuthe" No. 10 or No. 11)
	Z21 driver's cab available

New item number system



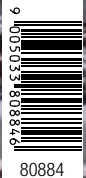
Item groups in detail

1	0	Electronics
4	0	Accessories
5	1	Start Set
5	3	Start Set "Premium"
5	5	Trainset
5	7	Trainset "Premium"
6	1	Passenger coaches Start
6	2	Passenger coaches
6	5	Goods wagons Start
6	6	Goods wagons
7	1	Steam locomotives
7	3	Diesel locomotives
7	5	Electric locomotives
7	7	Railcars

Gauge/technical design in detail

0	H0: DC
1	H0: DCC, DCC Sound
2	H0: AC
4	H0e: DC
5	H0e: DCC, DCC Sound
8	TT: DC
9	TT: DCC, DCC Sound

Roco



Imprint:



80884