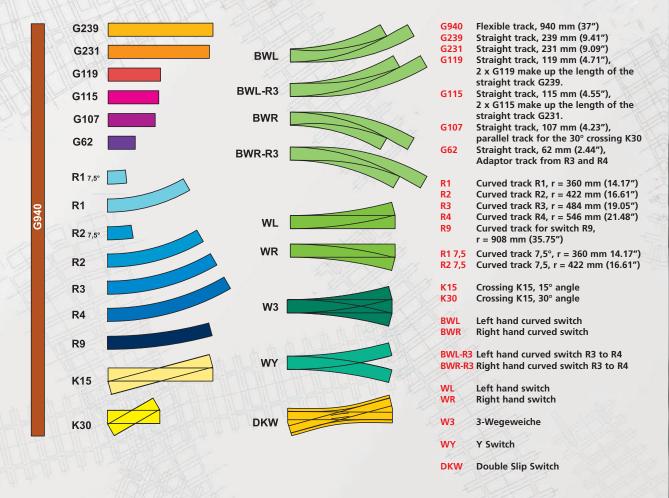
PIKO A-TRACK HO TRACK SYSTEM





PIKO A-Gleis

HO TRACK SYSTEM





PIKO A-Track HO Track System

- Clear and simple design that requires only a small range of track pieces to construct a complete layout
- Realistic appearance with carefully crafted wooden sleepers
- Solid non-corrosive nickel silver track with a high electric conductibility
- Limitless opportunities for layout expansion, because the track pieces are compatible with those of all other manufacturers of H0 scale DC track systems

THE SECRET IS THE SYSTEM: PIKO A-TRACK

The 470 mm Module - The Starting Point The basis of the tracks design is the 470 mm by 61.88 mm (18.5" by 2.44") unit. These measurements are not accidental; they are the result of intensive studies carried out with the help of high quality CAD programs to meet the requirements of both amateurs and model train enthusiasts.

With this system almost any track design can be constructed with no need for extra shorter pieces: elegant turnouts, straight or curved, various crossovers from one parallel track to the other, and the opportunity to add accessories such as platforms, etc.

This simple system makes complicated design charts superfluous. The layouts can be sketched on a sheet of ordinary squared paper to establish which particular pieces are required.

The Track Design The outstanding feature of the PIKO A-Track is the small number of different pieces. The modeller doesn't have to install additional pieces at either switches or crossings, which when used nearly always lead to uneven running.

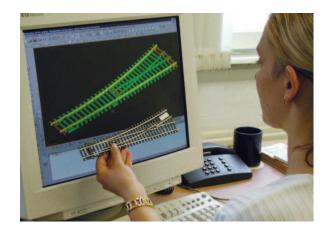
The 470 mm (18.5") module is divided into two straight tracks of 231 mm (9.09") and 239 mm (9.41"). This is the reason why you can have two parallel tracks with two turnouts with no need for additional pieces.

The Track The PIKO A-Track is made from a high quality nickel silver alloy and has good electrical conductibility even on long sections of track. Rail joiners ensure constant power, and guarantee good electrical conductibility at the joints in the rails.

The sleepers are made of high quality ABS material, characterised by its high impact resistance, noise reduction and a resistance to cracking under stress.

As in the prototype, the surface of the sleepers is made to look like wood and the spacing between sleepers is to scale. This makes it look realistic without being over-crowded.

The Track Identification The PIKO A-Track has both an article number and a second reference that identifies its type and size, for example 55201 and G231. G signifies straight and 231 is the length in mm. This second identification is used in the track diagrams. In addition to this, each type of track has its own colour, which is also used in the brochures and catalogues and on the boxes. All this makes it easy to recognise which piece of track is needed.



The basic surface of 470 mm (18.5") to 61.88 mm (2.44") for the PIKO A-Track design is the result of intensive studies carried out on high quality CAD programs.

FLEXIBILITY FOR PROFESSIONALS

Straight Track The PIKO A-Track normally requires only two straight tracks: G239 and G231. Joined together they form the 470 mm (18.5") module. Other straight tracks such as G115 and G119 can be used at will but are only necessary when constructing complex layouts.

The straight track G107 is only needed as a parallel track for 30° crossings.

For curved switches leading from radius R3 (483.8 mm, 19.05") to R4 (545.6 mm, 21.48") you need the straight track G62, which corresponds precisely in length to the distance between the two curves of 61.88 mm (2.44").

Flexible Track Sometimes modellers want to create a track layout in a particularly attractive landscape which in no way conforms to a simple geometric layout. Here the flexible 940 mm PIKO A-Track comes into its own. Its length is equal to two 470 mm (18.5") modules. The flexible track G940 can be bent to a much smaller radius than R1 (360 mm, 14.17"). A radius of less than 358 mm (14.09") may lead to the derailing of larger locomotives and rolling stock. If a modeller wishes to set a radius smaller than 358 mm (14.09") it is advisable to test the train beforehand.

The Basic Radius 4 different radiuses with a parallel spacing of 61.88 mm (2.44") are available:

R1 curved track 30°, r = 360 mm (14.17'')

R2 curved track 30° , r = 421.9 mm (16.61'')

R3 curved track 30° , r = 483.8 mm (19.05")

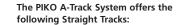
R4 curved track 30° , r = 545.6 mm (21.48")

To assemble a complete circle, 12 pieces of these curved tracks are needed. The distance between tracks of 61.88 mm (2.44") ensures that passenger coaches such as PIKO's long double deck wagons will pass without touching on R1 and R2 radiuses.

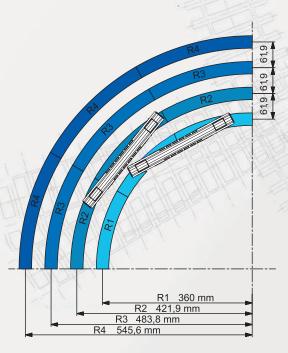
Curved Track for Switches To get from a switch to a parallel track while keeping the distance of 61.88 mm (2.44"), R 9 curved track is required:

R 9 curved track 15°, r =907.97 mm (35.75")

This curved track of 15° matches the 15° that is used in the turnouts.



- G239 Straight track, 239.07mm (9.41"), in conjunction with the G239 it makes up the module length of 470 mm (18.5").
- Straight track, 230.93mm (9.09"), in conjunction with the G231 it makes up the module length of 470 mm (18.5").
- G119 Straight track, 119.54mm (4.71"), 2 x G119 make up the length of the straight track G239.
- G115 Straight track, 115.46mm (4.55"), 2 x G115 make up the length of the straight track G231.
- Straight track, 107.32mm (4.23"), parallel track for the 30° crossing
- Straight track, 61.88mm (2.44"), Adaptor track from R3 and R4
- Flexible track, 940mm (37"), equals 2 x the module length of 470mm (18.5")



As a train passes over manually operated turnouts, they are immediately switched to the train's direction of travel; hence no additional equipment is needed for manual switches.

In the case of electrically operated switches there is a switching function that returns the switch blades to their original position after they were moved during the train's crossing.

The turnout rails are made so that whichever direction they are set, the rails match with the main track's profile.

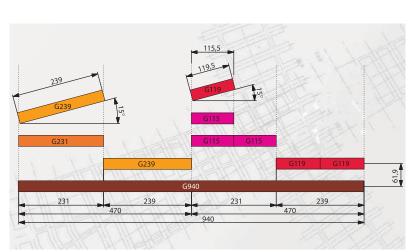
All the switches are 15°, being based on a 908 mm (35.75") switch radius. Such a large radius makes it easy to integrate the switch in track plans. The size of the parallel tracks spacing is dictated by the turnout: 61.88 mm (2.44").

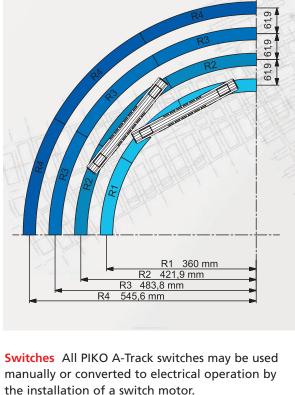
The frog, an important element for an authentic appearance in a model turnout, is composed of various track profiles (as in the real pattern). The flange's motion in the frog is designed in such a way as to enable the locomotive and rolling stock smooth passage through the turnouts. The frogs are placed in such a way as to make the nonconductive area shorter than 25 mm (0.098").

As a result even locomotives with a small wheelbase will have almost no loss of electric power. PIKO's KÖ I is a good example of this. Polarization of the frogs is therefore unnecessary. ("Polarization" is the change in polarity of the frog depending on the selected direction of the switch and responds to the polarity of the track on either side. The weakness of this is shown when the switch is opened up by a train passing over it. This creates a short circuit because the wrong polarity is present.)

Switch Machines Manual switches are ready to use and do not need additional items to work.

All manually powered switches can be converted to electrical operation by installing a switch machine (art.no.: 55271). The motorised switch has an automatic switching function, which means that





after the passing of the train, the switch is moved back to its original position. Electric switches can also be operated manually.

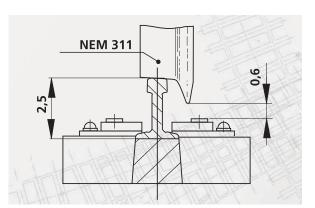
The switch machine is attached to the switch by special connections. Owing to its narrow shape it can also be fitted onto switches that are very close together. If the track design does not leave enough space, as in a junction on the curve passing from radius R3 to R2, the motor may be installed underneath. For this an underfloor installation kit is required (art.no.: 55273).

The switches may be operated by other manufacturers' below the baseboard motors, as there is an appropriate hole in the tie, at which the switch direction is set.

Wheels and Track The solid rail is made out of nickel silver, is non-corrosive and characterised by high electrical conductivity.

The PIKO rails are 2.5 mm (0.098") high (code 100), and therefore correspond to the NEM norm 120. This means you can use the PIKO track for almost all stock with traditional wheel profiles made by other producers.

The small metal parts, which in the prototype hold the rails onto the sleepers, are accurately reproduced so that all standard wheel types can travel freely over all the pieces of the PIKO A-Track without rattling.



The scale-built rail profiles 2.5 mm in height ensure the passage of vehicles with conventional wheelsets made by different manufacturers

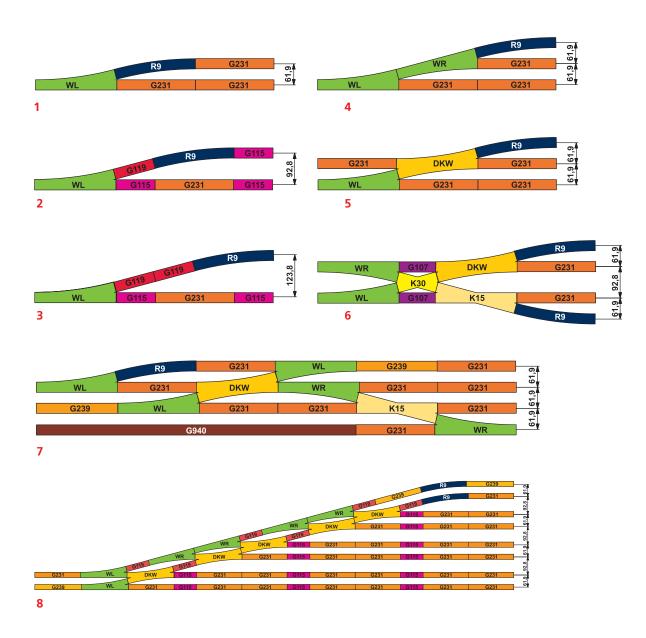
Laying the track Thanks to the high quality rail joiners made of sprung steel, the PIKO A-Track can be used on every type of surface, including a short pile house carpet.

However in order to prolong the life of your model railway, we recommend fixing the tracks to a wooden baseboard with PIKO track screws (art.no.: 55298). This will stop the track being moved by centrifugal force when running fast or heavy trains. Each track piece is made with the holes required for the unobtrusive screws.

Power Connection The easiest way of providing the PIKO A-Track with an electrical connection is by using the power connector (art.no.: 55270). It can be fitted to each straight track G231 (and no other pieces). The wires supplied with the control unit can then be used to connect to the power supply.

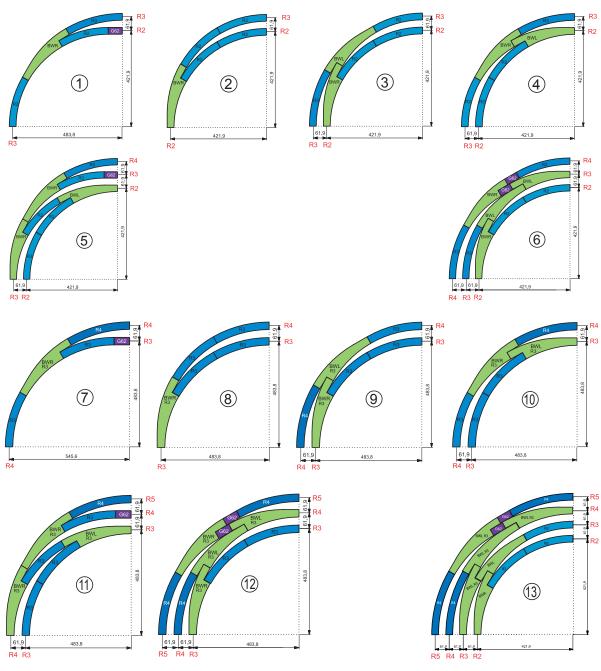
If the modeller wants to install track with electrically isolated sections, or wants to supply particular parts of the track with power, he can use special rail joiners with connecting wires (art.no.: 55292). These rail joiners should be used instead of the existing ones on each track.

FROM ONE TRACK TO THE NEXT



Geometric Examples:

- 1 Transition from one track to parallel tracks
- 2 Transition from one track to parallel tracks with "platform" spacing
- 3 Transition from one track to parallel tracks with double spacing
- 4 Transition from one track to three parallel tracks
- 5 Transition from a parallel track to three parallel tracks
- 6 Transition from a parallel track with "platform" spacing to two parallel tracks and one parallel track with "platform" spacing
- 7 A complex layout with parallel tracks and crossings
- 8 Transition from a parallel track into a station layout with alternate parallel tracks and a parallel tracks with "platform" spacing



Geometric Examples for Curved Track:

- 1 Transition from radius R3 to R2 and R3
- 2 Transition from radius R2 to R2 and R3
- 3 Transition from the parallel radius R2 to R2 and R3
- 4 Transition from the parallel radius R3 to R2 and R3
- 5 Transition from the parallel radius R3 to R2, R3 and R4
- 6 Transition from the parallel radiuses R4 to R3 and R4 and from R2 to R2 and R3
- 7 Transition from radius R4 to R3 and R4
- 8 Transition from radius R3 to R3 and R4
- 9 Transition from the parallel radius R3 to R3 and R4
- 10 Transition from the parallel radius R4 to R3 and R4
- 11 Transition from the parallel radiuses R4 to R3, R4 and R5

- 12 Transition from the parallel radiuses R5 to R4 and R5 and from R3 to R3 and R4
- 13 Transition from the parallel radiuses R5 to R4 and R5, and from R3 to R3 and R4 and from R2 to R2 and R3

Note: Crossing over to a radius R1 curve using these curved switches is not possible because our curved switches have a basic radius of 421.9 mm (16.61") (= R2). To cross over to the radius R1 curve we would have had to choose a basic radius of 360 mm (14.17") (= R1) for our turnouts. Since for technical reasons not every locomotive can run through this radius of switch, this would not have been acceptable..

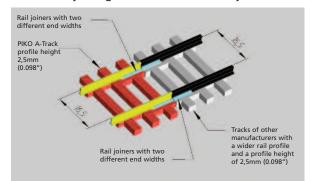
R5: There are no turned tracks for the radius R5.

Rail Joiners All the rail joiners are made of non-corrossive sprung steel and not only guarantee a long life and good contacts, but simultaneously ensure a constant current in the track. For special purposes rail joiners with wires attached are used (art.no.: 55292).

In order to separate parts of the tracks electrically, insulated rail joiners must be used (art.no.: 55291). These simply replace the existing rail joiners.

In order to ensure smooth passage between the PIKO A-Track and the very old PIKO U-Profile track produced up to the year 1990, the transition track GUE62 H art.no.: 55207) should be used. It is the same size as the straight track G62, but has a shaped profile at one end that fits perfectly into the hollow profile of the old PIKO U-Profile track. This makes it easy to set up permanent electrical connections to older PIKO layouts.

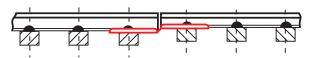
Easy connection to other manufacturers' tracks (see also the description of the adaptor track GUE62-U) is possible if they offer 2.5 mm (0.098") rail profiles and rails with no permanently attached track beds or ballast. In such a case combining the PIKO A-Track with other manufacturers' track profiles is achieved by using the PIKO A-Track rail joiners



with two different end widths (art.no.: 55293). These are indispensable, as most manufacturers offer much wider rail profiles.

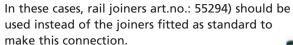
The adaptor track GUE62-U (art.no.: 55208) is the same length as straight track G32 and may be used instead of rail joiners 55293. This adaptor track already has the rail joiners attached with the different end widths, which you need to connect to other manufacturers' tracks.

For tracks with permanently attached track beds or ballast, the manufacturers normally offer their



own adaptor pieces, which ensure an almost entirely smooth connection to the 2.5 mm (0.098") PIKO A-Track corresponding to the NEM 120 norm. Because of the differences in the rail profile width, PIKO rail joiners with two different end widths 55293, or the adaptor track GUE-62U should be additionally installed.

For joining the PIKO A-Track to other manufacturers' track of 2,1mm (0.083") height, rail joiners offsetting the difference of levels between the profiles should be used.



TRACK - FOR INDIVIDUALISTS

Straight and Flexible Track

G940 55209 Flexible Track 940 mm (37")
Flexible track, 940 mm long that corresponds to double the length of the module 470 mm (18.5")



G239 55200 Straight Track 239 mm (9.41")
Straight track G239, 239.07 mm long, G239 + G231
make up a module of 470 mm (18.5") long.

G231 55201 Straight Track 231 mm (9.09") Straight track G231, 230.93 mm long, G231 + G239 make up a module 470 mm (18.5") long.



G119 55202 Straight Track 119 mm (4.71") Straight track G119, 119.54 mm long 2 x G119 equals G239

G115 55203 Straight Track 115 mm (4.55") Straight track G115, 115.46 mm long 2 x G115 equals G231

G107 55204 Straight Track 107 mm (4.23") Straight track G107, 107.32 mm long, parallel track for the 30° crossing K30



G62 55205 Straight Track 62 mm (2.44") Straight track G62, 61.88 mm long, adaptor track from R3 and R4

GUE62-H 55207 Adaptor Track 62 mm (2.44")
Adaptor track GUE62-H fits between the PIKO ATrack and the old U-Profile track 61.88 mm long.

GUE62-U 55208 Adaptor Track 62 mm (2.44")
Adaptor track GUE62-U fits between the PIKO ATrack and the PIKO-Hobby track, produced from
1992 to 2000, the Mehano* track, the classic
ROCO* 2.5 mm (0.098") brass and nickel track, the
Fleischmann* Profi- and Model tracks as well as
others with a 2.5 mm (0.098") profile height.
61.88 mm long.

55282 Sleepers 31 mm for Flex Track

These sleepers (not complete tracks) can be attached to the flex track to achieve a perfect connection between flex track and the following regular tracks.

Switches and Crossings

WL 55220 55220 WL Switch

Left hand switch, 15° angle, straight track = G239 Turnout = R9, manually operated with positioning, switch machine = # 55271



WR 55221 WR Switch

Right hand switch, 15° angle, straight track = G239 Turnout= R9, manually operated with positioning, switch machine = # 55271

BWL 55222 Curved Switch BWL

Left hand curved switch. Suitable for passing from radius R2 to R3 or R3 to R4, the main track's radius of the turnout is R2. Manually operated with positioning, switch machine = # 55271

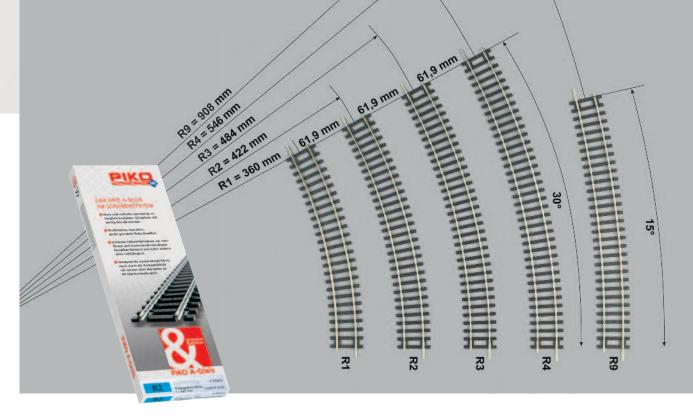


BWL-R3 55227 Curved Switch BWL-R3, left
Left hand curved switch. Suitable for passing from
radius R3 to R4, the main track's radius of the
turnou R3. Manually operated with positioning,
switch machine = # 55271

BWR 55223 Curved Switch BWR

Right hand curved switch. Suitable for passing from radius R2 to R3 or R3 to R4, the main track's radius of the turnout is R2. Manually operated with positioning, switch machine = # 55271

Right hand curved switch. Suitable for passing from radius R3 to R4, the main track's radius of the turnout is R3. Manually operated with positioning, switch machine = # 55271



K15 55240 Crossing K15

Crossing K15, 15° angle, straight track = G239

K30 55241 Crossing K30

Crossing K30, 30° angle, straight track = G119



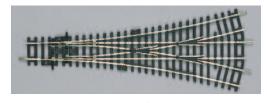
DKW 55224 Double Slip Switch DKW

Double slip switch, 15° angle, straight track = G239, turnouts = R9. Manually operated with positioning, switch machines = 2 x # 55271



W3 Three Way Switch W3

Three way switch, 2 x 15° angle, straight track = G239, turnouts = R9. Manually operated with positioning, switch machines = 2 x # 55271



- * Koco and Koco-Line are the trademark of KOCO-Modelispielwaren GmbH ,
- Salzburg.

 * Fleischmann is the trademark of the Gebr. Fleischmann GmbH & Co. K.G.,
- Nueremberg

 * Tillig is the trademark of TILLIG Modellbahnen GmbH & Co. K.G., Sebnitz
- * Mehano is the trademark of Mehano, Izola, Slovenia .

R5: There are no turned tracks for the radius R5.

WY 55226 Y Switch WY

Y switch, 30° angle, turnouts = R9, manually operated with positioning, switch machines = $2 \times \# 55271$



Curved Track

R1 55211 Curved Track R1

Curved track R1, r = 360 mm (14.17")/ 30°, 12 pieces / circle

R2 55212 Curved Track R2

Curved track R2, $r = 421.88 \text{ mm } (16.61'')/30^{\circ}$, 12 pieces / circle

R3 55213 Curved Track R3

Curved track R3, r = 483.75 mm (19.05")/30°, 12 pieces / circle

R4 55214 Curved Track R4

Curved track R4, r = 545.63 mm (21.48")/30°, 12 pieces / circle

R9 55219 Curved Track R9

Curved track for switch R9, r = 907.97 mm (35.75") / 15°, 24 pieces / circle

R1 7.5° 55251 Curved Track R1, 7,5°

Curved track R1, r = 360 mm (14.17") / 7,5°, 48 pieces / circle

R2 7,5° 55252 Curved Track R2, 7,5°

Curved track R2, r = 421,88 mm (16.61") /7,5° 48 pieces / circle

ACCESSORIES - FOR EXPERTS



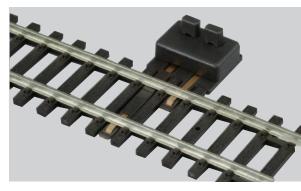
55280 Bumper (Buffer Stop)

consumption.

Buffer Stop of wooden appearance, can be clipped or screwed onto all straight tracks.



55271 Switch Machine Right/Left Motor for all switches, low electric power



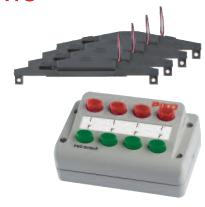
55270 Power Connection (Terminal Box) Terminal box with suppressor fits to track G231.

55275 Power Clip for Digital Systems

This power clip without an EMV interference suppressor is essential for digital systems. The clip perfectly plugs into track G231.



55281 Track Cleaning Block



55392 Set of Switch Machines

This set includes 1 switchboard 55260 for changing switches and signals that are electrically operated and 4 motors for all switches, low electric power consumption.



55273 Underfloor Installation Kit for Switch Machine This kit is required if you plan to install the switch machine # 55271 underneath the switch.



55293 Rail Joiners with Two End Widths, 6 pieces Rail joiners made of sprung steel with two different end widths, make connection possible to the PIKO-Hobby track produced between 1992 and 2002, the Mehano* track, classic Roco* 2.5 mm (0.098") track of brass and nickel, the Fleischmann Profi* - and model tracks and other tracks with 2.5 mm (0.098") high profiles, 6 pieces.



55299 Track Nails, about 400 pieces



55290 Rail Joiners 24 pieces



55298 Track Screws, about 400 pieces



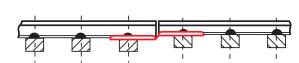
55292 Rail Joiners with Connecting Wires, 1 pair Sprung steel rail joiners with connecting wires, 1 pair



55261 Switchboard For changing switches and signals that are electrically operated



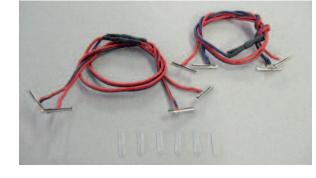
55262 Switchboard For changing switches and signals that are electrically operated



55294 Rail Joiners for Different Heights, 6 pieces Rail joiners for different heights, to equalize the different levels when passing from ROCO*-Line and Tillig*- Elite to PIKO A-Track, 6 pieces



55296 Track-nail holder & hammer



55391 Terminal Loop Set

With this terminal loop train set, terminal loops are no problem. Consists of insulating connectors, cables and mounting connectors. Not suited for digital operation.



This electronic Phillips screwdriver has the following innovative properties:

- Designed for maximum handling comfort.
- The ergonomically designed top revolves smoothly.
- Hardened steel blade with ergonomic designed handle for faster, more powerful, and less tiring screwdriving action.
- With blackpoint.
- A special precision zone ensures precise working.
- * Roco are the trademark of Modelleisenbahn GmbH, Bergheim
 * Fleischmann is the trademark of the Gebr. Fleischmann GmbH & Co. K.G., Nuremberg.
 * Tillig is the trademark of TILLIG Modellbahnen GmbH & Co. K.G., Sebnitz
 * Mehano is the trademark of Mehano, Izola, Slovenia.



55230 Set of Screws for Switch Machines (10 pieces)



55231 Set actuator springs for Switch Machines (10 pieces)



55289 Rerail Mechanism

Eases the process of setting locomotives and cars onto the tracks.

TRACK SETS – FOR ADVANCED MODELLERS

The PIKO A-Track sets have been designed to allow both beginners and experienced modellers using the PIKO A-Track system for the first time to build up a basic stock of tracks at a reasonable price. The uncomplicated, clear design of the PIKO A-Track permits continuous expansion of existing track designs in easy steps. The sets contain the pieces in the pictures shown in the stronger colours, which conform throughout to the PIKO A-Track system colour coding.

The switches included in all track and starter sets may be converted at any time into electric switches by installing a suitable switch machine.



55300 Track Set A

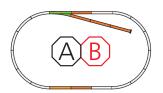
All the PIKO starter sets include the contents of track set A. This set is offered separately to make it easy for modellers to begin using the PIKO A-Track system with their existing engines and rolling stock.

Contents: 2 x 55201 G231 (straight track 231 mm), 12 x 55212 R2 (the

curved track R2 422 mm), 1 x 55270 terminal box

Floor area* A: 110 x 88 cm (43.3" x 34.7")

Minimum area for assembly: 120 x 98 cm (47.2" x 38.6")



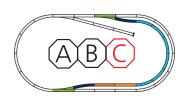
55310 Track Set B

An oval is the start of most track layouts. A switch and a siding give additional interest, making it possible to shunt the wagons, which is even more fun.

Contents: 1 x 55221 WR (right hand switch), 1 x 55200 G239 (straight track 239 mm) 5 x 55201 G231 (straight track 231 mm), 1 x 55280 buffer stop

Floor area* A + B: 158 x 88 cm (62.2" x 34.7")

Minimum area for assembly: 168 x 98 cm (66.2" x 38.6")



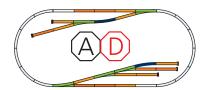
55320 Track Set C "The Station Set"

If the combination of sets A and B is extended by track set C, it's possible to incorporate a station and operate two trains. This makes a really nice layout that may also be equipped with PIKO's hobby buildings.

Contents:1 x 55200 G239 (straight track 239 mm), 1 x 55201 G231 (straight track 231 mm), 1 x 55220 WL (left hand switch), 1 x 55221 WR (right hand switch), 6 x 55211 R1 (curved track R1 360 mm), 2 x 55219 R9 (curved track R9 908 mm)

Floor area* A + B + C: 182 x 88 cm (71.7" x 34.7")

Minimum area for assembly: 192 x 88 cm (75.6" x 38.6")



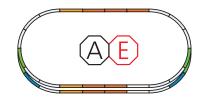
55330 Track Set D "The Freight Station"

If track set D is added to the basic track set A, an interesting freight yard can be constructed. A number of sidings make space for parking rolling stock that can be collected at different times by the locomotive. Thus combining these sets provides plenty of scope for playing.

Contents: 9 x 55200 G239 (straight track 239 mm), 7 x 55201 G231 (straight track 231 mm), 2 x 55219 R9 (curved track R9 908 mm), 3 x 55220 WL (left hand switch), 2 x 55221 WR (right hand switch), 5 x 55280 buffer stop

Floor area* A + D: 205 x 88 cm (80.7" x 34.7")

Minimum area for assembly: 215 x 98 cm (84.7" x 38.6")



55340 Track Set E "Parallel Set"

If track set E is added to the basic track set A, an interesting layout can be made with a by-pass track for parallelly running trains. This is especially interesting for trains with lots of cars. Two trains can pass each other in front of a passenger station. The track set E offers a great variety of laying out tracks in combination with the track sets A to D.

Contents: 3 x 55200 G239 (straight track 239 mm), 7 x 55201 G231 (straight track 231 mm), 2 x 55212 R2 (curved track R2 422 mm), 1 x 55222 BWL (curved left hand switch), 1 x 55223 BWR (curved right hand switch)

Floor area* A + E: 182 x 95 cm (71.7" x 37.4")

Minimum area for assembly: 192 x 105 cm (75.6" x 41.3")

*The suggested floor area is always rounded up.