

CONDUCTOR RAIL SYSTEM

The invention relates to a conductor rail system comprising at least one carrier device which can be fastened to at least one underground with at least one free end via at least one fixing arrangement, wherein the carrier device has at least one opening, wherein a fastening system for receiving at least one conductor rail can be fastened to the carrier device.

Conductor rails have been established and proven in the prior art for years.

A conductor rail system of the generic type is described in DE 1615545 A1.

This conductor rail system has a conductor rail support, consisting of a conductor rail bracket, to which the conductor rail is attached by means of a claw attached to a load-bearing insulator. This conductor rail system should be designed in such a way that so-called earth faults or short circuits are to be avoided in order to be able to avoid serious malfunctions in the conductor rail system.

Furthermore, greater operational reliability is to be achieved through a suitable design of the isolator. For this purpose, the load-bearing insulator is a fiberglass-reinforced plastic rod, one end of which is connected to the conductor rail bracket and the other end of which the claw is attached. The conductor rail bracket is fixed to the foundation via a base plate using suitable fixing elements, such as screws.

The disadvantage of this conductor rail system is that it is formed from different parts, which in turn are made from different materials, such as metals or fiberglass-reinforced plastic. This increases not only the manufacturing but also the logistics outlay for conductor rail systems manufactured in this way.

Another disadvantage is the used fastening systems, the load-bearing metallic parts and in particular the fixing elements in the foundation can loosen when the conductor rail support is used as intended, in particular due to the loads on the passing railways with the pantograph, so that an impairment of the intended using is very likely.

Another disadvantage of this conductor rail system is the not inconsiderable effort involved in mounting and fastening or adjusting the conductor rail.

Another conductor rail system is described in DE 102006001442 B3. This conductor rail system is designed in such a way that it discloses a device for attaching the conductor rail for the pantograph of a local train to an auxiliary bridge in the course of construction work, wherein the conductor rail is connected to an insulator foot via a conductor rail support or an insulator and the auxiliary bridge is composed of several longitudinal and transverse double T-beams on which the tracks are arranged in the longitudinal direction, wherein a rail bracket is attached to a vertical cheek of the double T-beam, wherein the console is composed of a base plate and a cantilever plate attached at right angles as well as two end plates and a boom is arranged on the conductor rail console, which is composed of two angular profiles that are butt-attached to each other via a connecting webs, on whose horizontal cheeks as spacer surfaces via an intermediate bearing an adapter plate for holding the insulator with conductor rail support of the conductor rail or a conductor rail support with a hanging bracket of the conductor rail is arranged. With this conductor rail system, it is seen as a limitation that the fixation of the conductor rail system is realized in particular via the horizontal cheeks as well as via the intermediate bearings via so-called elongated holes, which lead to the fact that the original fastening with fixing elements, such as screws, caused by vibrations caused by the local trains or their pantographs, can loosen and thus lead to a mechanical or electrical impairment of this conductor rail system, especially when this conductor rail system is used as intended.

This is where the invention comes in, which has set itself the object of presenting a conductor rail system that can be produced economically and cost-effectively, that has a long functional or service life, that has a simple, site-appropriate and compact design, which is mountable easily and securely, mechanically stable or remains fixed under loads when used as intended.

According to the invention, the object is achieved by the features of claim 1. Further advantageous embodiments of the conductor rail system according to the invention are described in the subclaims.

It has surprisingly been found that a conductor rail system comprising at least one carrier device which can be fastened to at least one underground with at least one free end via at least one fixing arrangement, wherein the carrier device has at least one opening, wherein a fastening system for receiving at least one conductor rail can be fastened to the carrier device, is characterized in that the fixing arrangement has at least one cover arrangement and at least one fixing element, that the cover arrangement has at least one latching device which is in operative connection with the opening of the carrier device. In this advantageous embodiment of the conductor rail system according to the invention, it is ensured that it has a simple, site-friendly and compact design and when used as intended, even with very compact conductor rails, it can be arranged or fixed on the fastening arrangement in such a way that this embodiment according to the invention in the fixed end position enables not only locking but also additional protection against possible loosening of the fixing elements in a cost-effective and economical manner. With this conductor rail system according to the invention it is surprisingly possible for the first time, that when used as intended by the operation or vibrations of, for example, local trains such as the city train or subway, as well as the mechanical stress from their electricity consumers, the fixing arrangement fixing the conductor rail system does not loosen. Due to the very compact and thus cost-effective design of the conductor rail system according to the invention, a final assembly of the individual components that is safe to assemble and suitable for the construction site can be implemented without any problems.

Furthermore, this advantageous embodiment enables the electrical requirements, for example, for creepage distances or clearances to be fully implemented, in particular through the geometry or the arrangement of the cover elements of the first fastening device and the web of the second fastening device.

Clearance is understood to be the shortest distance in air between two conductive parts. The creepage distance is the shortest distance along the surface of an insulating material between two conductive parts. The conductive parts of the conductor rail system according to the invention are, on the one hand, the conductor rail, the various fixing elements, and the carrier device, provided it consists of an electrically conductive material. Another advantage of the conductor rail system according to the invention in

the described embodiment is that it can be produced extremely economically and cost-effectively.

The conductor rail system according to the invention is further characterized in that the cover arrangement has at least one latching device which is in operative connection with the opening of the carrier device fixing the fixing element in a rotatable manner. This advantageous embodiment ensures on the one hand that the current-carrying conductor rail and the entire conductor rail system is and remains securely in place.

It has also been found to be advantageous that the cover arrangement has at least one base and a collar arranged thereon. This leads, on the one hand, to cost-effective manufacture and, on the other hand, to an easy, non-twistable assembly of the conductor rail system according to the invention.

It is also advantageous in the conductor rail system according to the invention that the latching device is arranged spaced from the collar of the cover arrangement over at least one gap. In this advantageous embodiment of the conductor rail system according to the invention, in addition to cost-effective and economical production, in particular of the cover arrangement, adaptation to different conductor rail systems and fixing elements can also be implemented at any time. It is also advantageous that in particular the mechanical or elastic latching function of the latching device can hereby be implemented without problems.

One advantage of the conductor rail system according to the invention is that the fixing element has at least one head element and one threaded element, which are connected by a contact section. This also leads to a better positioning or fixation of the fixing element in the conductor rail system according to the invention.

Another advantage of the conductor rail system according to the invention is that the latching device of the fixing arrangement engages behind the contact section of the fixing element in a force-fitting manner. With the conductor rail system according to the

invention, a simple and non-twistable installation on the construction site can also be implemented as a result.

Another advantageous embodiment of the conductor rail system according to the invention is configured such that the base of the cover arrangement is configured as approximately circular, prismatic, oval and the like in cross section. This advantageously means that the cover arrangement can be used for differently dimensioned fixing elements and thus also for different conductor rail systems.

It is also advantageous in the conductor rail system according to the invention that the base of the cover arrangement has at least one receiving space. As a result, in addition to cost-effective and economical production, it can also be installed on the construction site in a simple and non-twistable manner.

The conductor rail system according to the invention is advantageously further configured in such a way that at least two webs that are triangular in cross-section are arranged in the receiving space of the base of the cover arrangement. This advantageous embodiment of the conductor rail system according to the invention enables simple and cost-effective assembly with differently dimensioned fixing elements on almost all conductor rail systems. In this advantageous embodiment of the conductor rail system according to the invention, the cover arrangement in particular can always be applied to the fixing elements arranged in the end position such that the latching device can always be arranged in an opening of the carrier device covering and fixing the fixing element.

A further advantage of the conductor rail system according to the invention is that in the receiving space of the base of the cover arrangement at least two webs, which are arranged parallel to each other and are triangular in cross section, are arranged. With this advantageous embodiment of the conductor rail system according to the invention, an exact positioning of the cover arrangement as well as a construction site-appropriate locking of the fixing elements on the carrier device is realizable.

In a likewise advantageous embodiment of the conductor rail system according to the invention, at least four webs which are arranged radially opposite each other and are triangular in cross section are arranged in the receiving space of the base of the cover arrangement. This advantageous embodiment of the conductor rail system according to the invention enables exact and precise positioning of the cover arrangement, as well as standardized and mild locking or fixing of the fixing elements.

The conductor rail system according to the invention is furthermore configured such that the latching device of the fixing arrangement has at least one base and at least one latching element. In this way, a cost-effective production of the cover arrangement is realizable, as well as a corresponding geometric optimization of the latching device or the latching element on different fixing elements of the most varied of conductor rail systems.

In a likewise advantageous embodiment of the conductor rail system according to the invention, the carrier device is round, oval, triangular, square, prismatic, T-shaped, double-C-shaped and the like in cross section. This advantageously leads to the fact that the conductor rail system according to the invention can be produced economically and cost-effectively and, in particular, the carrier devices are adaptable to the corresponding standards or laws for all conductor rail systems.

It is also advantageous in the conductor rail system according to the invention that the conductor rail and/or the first fastening element and/or the second fastening element and/or the carrier device is made at least partially from a metallic material. In this way, a conductor rail system according to the invention is realizable that meets all standards and legal requirements with regard to rigidity and strength.

It has also been shown to be advantageous in the conductor rail system according to the invention that the first fastening element and/or the second fastening element and/or the carrier device is made at least partially from a polymer material. With this advantageous embodiment of the conductor rail system according to the invention, it is

possible to optimally and cost-effectively adapt not only the mechanical but also the electrical properties to the corresponding country-specific standards or laws.

Another advantage of the conductor rail system according to the invention is that the fastening device is made from an unsaturated polyester resin with a heat resistance of at least 200 °C in accordance with EN ISO 75-2. In this way, when the conductor rail system according to the invention is used as intended, it is ensured that the fastening device is not damaged by the thermal stress on a heated conductor rail.

It is also advantageous in the conductor rail system according to the invention that the fastening device is made from an unsaturated polyester resin with a creepage path of about CTI 600 according to IEC 60112. As a result of these advantageous CTI values, the conductor rail system according to the invention and, in particular, the fastening device surprisingly have very low creepage according to IEC 60112.

It is also advantageous in the conductor rail system according to the invention that the material of the fastening device has a breakdown voltage of at least 30 kV and a breakdown strength of at least 10 kV/mm according to IEC 60243. In this way, the conductor rail systems according to the invention can be made available which fully meet all electrical requirements, in particular for electrical insulation.

It has also proven to be advantageous in the conductor rail system according to the invention that the material of the fastening device has at least 30% glass fibers according to EN ISO 1172. In this way, the conductor rail systems according to the invention can be made available in which the fastening system has a tensile modulus of elasticity of at least 13 GPa and a tensile strength of at least 100 MPa according to EN ISO 527-4.

Another advantage of the conductor rail system according to the invention is that the fastening devices of the fastening system have a bending strength of at least 180 MPa and a bending modulus of elasticity of at least 10 GPa according to EN ISO 14125. It is also advantageous in the conductor rail system according to the invention that the

material of the fastening device of the fastening system has a specific volume resistance of about 10^{12} ohm $\times$ cm according to IEC 60093 and a specific surface resistance of about 10^{12} ohm according to IEC 60093.

With the conductor rail system according to the invention, it is surprisingly possible for the first time, cost-effectively, economically and in line with the construction site, to prevent the fixing elements required for mounting from loosening when used as intended by, for example, vibrations or other mechanical loads and thus leading to problems in the conductor rail systems.

It has also been found to be extremely advantageous that, especially when using the cover arrangement of the conductor rail system according to the invention, it is possible without any problems, especially at later times, to simply monitor or control the position and thus also the function of the fixing elements. According to the invention, this can be achieved in that, with the exact position of the fixing elements, in particular the latching device, which in particular engages behind the abutment section of the fixing element in a supporting manner, is recognizable or visible in the respective opening of the carrier device. If the latching device is no longer present or no longer recognizable when controlling the conductor rail systems according to the invention, this is a clear signal that the fixing element is defective or has partially loosened due to high mechanical loads when used as intended.

Another advantage of the conductor rail system according to the invention is that the cover arrangement in particular is dimensioned and configured so that it can be used worldwide for all currently approved or used fixing elements of all conductor rail systems and has these advantageous functions.

The invention will now be described in more detail with the following exemplary embodiments, which do not restrict the invention.

It shows:

Fig. 1: a perspective illustration of a conductor rail system according to the invention;

Fig. 2: a perspective illustration of a further conductor rail system according to the invention;

Fig. 3: a perspective illustration of the carrier device and the fixing arrangement of the conductor rail system according to the invention;

Fig. 4: a perspective view of the cover arrangement of the conductor rail system according to the invention;

Fig. 5: view from below of the cover arrangement of the conductor rail system according to the invention.

In fig. 1, a perspective illustration of a conductor rail system according to the invention is shown.

The conductor rail system comprises at least one carrier device 4, which can be fastened to at least one underground 5 with at least one free end 41 via at least one fixing arrangement 3, wherein the carrier device 4 has at least one opening 43, 44, wherein a fastening system 2 for receiving at least one conductor rail 1 can be fastened to the carrier device 4.

The fixing arrangement 3 has at least one cover arrangement 6 and at least one invisible fixing element.

The cover arrangement 6 has at least one latching device 7, which is in operative connection with the opening 43 of the carrier device 4.

The carrier device 4 is configured such that it has a base 40, wherein the free end 41 of the carrier device 4 being fixed to the underground 5 by means of fixing arrangements 3. Furthermore, the carrier device 4 is configured such that at its free end 42 arranged opposite the free end 41, it has a fastening system 2 arranged via an opening 44 for receiving at least one conductor rail 1.

In this exemplary embodiment, the fastening system 2 of the conductor rail system according to the invention is configured such that it has a first fastening device 20 and a second fastening device 30 connected to it.

The second fastening device 30 is connected to the first fastening device 20 via a fixing element 81 in a force-fitting manner.

The first fastening device 30 of the conductor rail system also has a clamping element 31 which grips around a conductor rail 1 in a force-fitting manner, at its free end arranged opposite the first fastening element 20.

The conductor rail 1 is configured such that it has a base profile 10 on which a sliding surface profile 11 is arranged.

In this exemplary embodiment, the carrier device 4 is firmly connected to the underground 5 at its free end 41 via two fixing arrangements 3.

The fixing arrangements 3 are arranged in or on the openings 43 of the free end 41 of the carrier device 4.

In this exemplary embodiment, the fixing arrangement 3 is configured such that it has a non-visible fixing element, which is covered by the cover arrangement 6.

The cover arrangement 6 of the conductor rail system according to the invention is configured such that it has at least one latching device 7, which is in operative connection with the opening 43 of the carrier device 4.

The opening 43, 44 of the carrier device 4 are configured as so-called elongated holes in this exemplary embodiment.

The conductor rail system is advantageously configured such that the cover arrangement 6 is in operative connection with at least one latching device 7, which is in operative connection with the opening 43 of the carrier device 4, that non-visible fixing element is rotatably fixed.

In this exemplary embodiment, the conductor rail system according to the invention is configured such that the free end 41 of the carrier device 4 is firmly connected to the underground 5 via two fixing arrangements 3 arranged spaced from each other.

However, it is also within the scope of the invention that the free end 41 of the carrier device 4 is connected to the underground 5 via further additional fixing arrangements 3. The underground 5 is configured, for example, as a known wooden or concrete sleeper for a local train such as a city train or subway.

In fig. 2, a perspective view of a further conductor rail system according to the invention is shown.

The conductor rail system comprises at least one carrier device 4, which can be fastened to at least one underground 5 with at least one free end 41 via at least one fixing arrangement 3, wherein the carrier device 4 has at least one opening 43, 44, wherein a fastening system 2 for receiving at least one conductor rail 1 can be fastened to the carrier device 4.

The fixing arrangement 3 has at least one cover arrangement 6 and at least one non-visible fixing element.

The cover arrangement 6 has at least one latching device 7, which is in operative connection with the opening 43 of the carrier device 4.

The carrier device 4 is configured such that the free end 41 of the carrier device 4 in this exemplary embodiment is fixed over the base 40 on the underground 5 via fixing arrangements 3.

Furthermore, the carrier device 4 is configured such that at its free end 42 arranged opposite the free end 41, it has a fastening system 2 for receiving at least one conductor rail 1 fastened via an opening 44 with a fixing element 81.

In this exemplary embodiment, the fastening system 2 of the conductor rail system according to the invention is configured such that it has a first fastening device 20 and a second fastening device 30 connected to it.

The second fastening device 30 is connected to the first fastening device 20 via a fixing element 81 in a force-fitting manner.

The first fastening device 30 of the conductor rail system also has a clamping element 31 which grips around a conductor rail 1 in a force-fitting manner, at its free end arranged opposite the first fastening element 20.

The conductor rail 1 is configured such that it has a base profile 10 on which a sliding surface profile 11 is arranged.

In this exemplary embodiment, the carrier device 4 is firmly connected to the underground 5 over the base 40 of the free end 41 via a total of four fixing arrangements 3 opposite one another and spaced apart from one another.

The fixing arrangements 3 are arranged in or on the openings 43 of the free end 41 of the carrier device 4.

In this exemplary embodiment, the fixing arrangement 3 is configured such that it has a non-visible fixing element which is covered by the cover arrangement 6.

The cover arrangement 6 of the conductor rail system according to the invention is configured such that it has at least one latching device 7, which is in operative connection with the opening 43 of the carrier device 4.

The opening 43, 44 of the carrier device 4 are configured as so-called elongated holes in this exemplary embodiment.

The conductor rail system is advantageously configured such that the cover arrangement 6 is in operative connection with at least one latching device 7, that the non-visible fixing element is in a rotationally movable fixing, in operative connection.

In this exemplary embodiment, the conductor rail system according to the invention is configured such that the free end 41 of the carrier device 4 is firmly connected to the underground 5 via two fixing arrangements 3 spaced apart from each other.

However, it is also within the scope of the invention that the free end 41 of the carrier device 4 is connected to the underground 5 via further additional fixing arrangements 3.

The underground 5 is configured, for example, as a known wooden or concrete sleeper for a local train such as a city train or subway.

In this exemplary embodiment, the first fastening device 20 and the second fastening device 30 are made from an unsaturated polyester resin with a heat resistance of approximately 200 °C in accordance with EN ISO 75-2. Furthermore, the material of the first fastening device 20 and the second fastening device 30 has a creepage path of about CTI 600 according to IEC 60112.

The fastening system 2 of the conductor rail system according to the invention comprising a first fastening device 20 and a second fastening device 30 is dimensioned such that it has a creepage distance according to EN 50124-1 of approximately 40 mm. Furthermore, the fastening system 2 of the conductor rail system according to the invention is dimensioned such that it has a clearances according to EN 50124-1 of approximately 60 mm.

In fig. 3, a perspective illustration of the carrier device 4 and the fixing arrangement 3 of the conductor rail system according to the invention is shown.

The carrier device 4 has a base 40, a free end 41 protruding therefrom and a further free end 42.

In the free end 41, 42 of the carrier device 4, openings 43, 44 are arranged, which are configured as so-called elongated holes.

When used as intended, the openings 43 configured as elongated holes in the free end 41 of the carrier device 4 serve in particular to fix the conductor rail system on a underground (not shown).

In the conductor rail system according to the invention, the fixing arrangements 3 are configured such that they have at least one cover arrangement 6 and at least one fixing element 8.

The fixing element 8 is configured here such that it has at least one head element 80 and one threaded element 82, which are connected by a contact section 81.

The cover arrangement 6 of the conductor rail system according to the invention is configured such that it has at least one base 60 and a collar 61 arranged thereon.

The cover arrangement 6 is also configured such that the latching device 7 is arranged on the base 60 and / or the collar 61. In this exemplary embodiment, the latching device 7 is arranged on the collar 61 of the cover arrangement 6.

In fig. 4, a perspective illustration of the cover arrangement 6 of the conductor rail system according to the invention is shown.

The cover arrangement 6 has a base 60 and a collar 61 arranged thereon. Furthermore, the cover arrangement 6 has a latching device 7.

In this exemplary embodiment, the latching device 7 is arranged spaced from the collar 61 of the cover arrangement 6 over at least one gap 62.

In this exemplary embodiment, the base 60 of the cover arrangement 6 is configured as approximately circular in cross section. However, it is also within the scope of the invention for the base 60 of the cover arrangement 6 to be approximately prismatic, oval and the like in cross section.

Furthermore, the base 60 of the cover arrangement 6 has at least one receiving space 9. In the receiving space 9 of the base 60 of the cover arrangement 6, at least two webs 63, 64 are arranged which are triangular in cross section.

In this exemplary embodiment, at least two webs 63, 64, which are arranged parallel to one another and are triangular in cross section, are arranged in the receiving space 9 of the base 60 of the cover arrangement 6.

The conductor rail system according to the invention is also configured such that at least four webs 63, 64, which are arranged radially opposite one another and are triangular in cross section, are arranged in the receiving space 9 of the base 60 of the cover arrangement 6.

In this exemplary embodiment, the conductor rail system according to the invention is configured such that the latching device 7 of the fixing arrangement 3 has at least one base 70 and at least one latching element 71.

Furthermore, in this exemplary embodiment, the latching device 7 is arranged spaced by respectively a gap 62 on the collar 61 of the cover arrangement 6.

The latching device 7 of the fixing arrangement 3 is also configured such that the latching element 71 is configured as a latching hook.

The cover arrangement 6 of the conductor rail system according to the invention is configured such that it is produced from a polymer material cost-effectively and economically.

However, it is also within the scope of the invention that the cover arrangement 6 of the conductor rail system according to the invention is made from a thermoset and/or ceramic and/or metallic material.

In fig. 5, a view from below of the cover arrangement 6 of the conductor rail system according to the invention is shown.

The cover arrangement 6 of the conductor rail system according to the invention is configured such that it has a base 60 and a collar 61 arranged thereon.

In this exemplary embodiment, the cover arrangement 6 has two latching devices 7 arranged directly opposite each other.

The latching device 7 is here arranged spaced from the collar 61 of the cover arrangement 6 respectively over a gap 62.

The base 60 and the collar 61 of the cover arrangement 6 are configured as circular in this exemplary embodiment.

The base 60 of the cover arrangement 6 has a receiving space 9 in which webs 63, 64, which are arranged spaced from each other via a respective recess 65 and are triangular in cross section, are arranged.

In this exemplary embodiment, a total of twelve webs 63 with a triangular cross section and twelve webs 64 with a triangular cross section are arranged in the receiving space 9 of the base 60 of the cover arrangement 6.

The base 60 of the cover arrangement 6 is configured such that in relation to the base diameter 66, the web 63 which is triangular in cross section has a smaller extension/height protruded into the receiving space 9 than the web 64 which is

triangular in cross section. In this exemplary embodiment, the web 63 which is triangular in cross section has approximately the height of half the height of the web 64 which is triangular in cross section.

The webs 63, 64, which are triangular in cross section, in the base 60 of the cover arrangement 6 are advantageously configured such that they form at least an acute angle to each other. This angle is particularly preferably about 30°.

In the receiving space 9 of the base 60 of the cover arrangement 6, regularly two webs 63, 64 which are triangular in cross section are thus arranged.

The webs 63, 64, which are triangular in cross section, in the receiving space 9 of the base 60 of the cover arrangement 6 are respectively arranged parallel to each other.

In the receiving space 9 of the base 60 of the cover arrangement 6, at least four webs 63, 64 are arranged radially opposite one another and are triangular in cross section.

With the conductor rail system according to the invention, it is now possible for the first time that the fixing arrangements 3 effectively prevent the fixing elements 8, which are required for fixing or also for the functionality of the conductor rail system, from loosening or even releasing in the underground.

It was surprisingly found that, in particular in the case of a cover arrangement 6 made of a polymeric material, not only the fixing of the fixing elements in the underground is realizable but also a mechanical fixing that prevents corrosion is possible.

Furthermore, it was recognized by the invention that not only the contact section 81 of the fixing element 8 can be engaged from behind in a force-fitting manner in particular by the latching device 7 of the fixing arrangement 3 arranged on the cover arrangement 6. The invention made it possible for the first time to make it possible to optically recognize at any time whether the fixing elements 8 are all still firmly fixed in the underground simply by the visible and thus also controllable presence of the latching device 7 when the conductor rail system according to the invention is used as intended.

In the conductor rail system according to the invention, at least one latching device 7 is arranged on the cover arrangement 6, which is in operative connection with the opening 43, 44 of the carrier device 4 fixing the fixing element 8 in a rotatable manner. Effective loosening or releasing of the fixing element 8 can thus be prevented, in particular

through the openings 43 in the carrier device 4, which are configured as elongated holes.

We claim that:

1. Conductor rail system comprising at least one carrier device (4), which can be attached to at least one underground (5) with at least one free end (41) via at least one fixing arrangement (3), wherein the carrier device (4) has at least one opening (43, 44), wherein a fastening system (2) for receiving at least one conductor rail (1) can be fastened to the carrier device (4), is characterized in that the fixing arrangement (3) has at least one cover arrangement (6) and at least one fixing element (8), that the cover arrangement (6) has at least one latching device (7) which is in operative connection with the opening (43, 44) of the carrier device (4).
2. Conductor rail system according to claim 1, characterized in that the cover arrangement (6) has at least one latching device (7) which is in operative connection with the opening (43, 44) of the carrier device (4) fixing the fixing element (8) in a rotatable manner.
3. Conductor rail system according to one of the preceding claims, characterized in that the cover arrangement (6) has at least one base (60) and a collar (61) arranged thereon.
4. Conductor rail system according to one of the preceding claims, characterized in that the latching device (7) is arranged on the base (60) of the cover arrangement (6).
5. Conductor rail system according to one of the preceding claims, characterized in that the latching device (7) is arranged spaced from the collar (61) of the cover arrangement (6) over at least one gap (62).
6. Conductor rail system according to one of the preceding claims, characterized in that the fixing element (8) has at least one head element (80) and a threaded element (82) which are connected by a contact section (81).

7. Conductor rail system according to one of the preceding claims, characterized in that the latching device (7) of the fixing arrangement (3) engages behind the contact section (81) of the fixing element (8) in a force-fitting manner.
8. Conductor rail system according to one of the preceding claims, characterized in that the base (60) of the cover assembly (6) is configured as approximately circular, prismatic, oval and the like in cross section.
9. Conductor rail system according to one of the preceding claims, characterized in that the base (60) of the cover arrangement (6) has at least one receiving space (9).
10. Conductor rail system according to one of the preceding claims, characterized in that in the receiving space (9) of the base (60) of the cover arrangement (6) at least two webs (63, 64) which are triangular in cross section are arranged next to one another.
11. Conductor rail system according to one of the preceding claims, characterized in that in the receiving space (9) of the base (60) of the cover arrangement (6) at least two webs (63, 64), which are arranged parallel to one another and are triangular in cross section, are arranged.
12. Conductor rail system according to one of the preceding claims, characterized in that in the receiving space (9) of the base (60) of the cover arrangement (6) at least four webs (63, 64) ,which are arranged radially opposite one another and are triangular in cross section, are arranged.
13. Conductor rail system according to one of the preceding claims, characterized in that the latching device (7) of the fixing arrangement (3) has at least one base (70) and at least one latching element (71).
14. Conductor rail system according to one of the preceding claims, characterized in that the carrier device (4) is configured as round, oval, triangular, square, prismatic, T-shaped, double-T-shaped and the like in cross section.