

Click-Ductor



AKAPP-STEMMANN

Member of the Fandstan Electric Group

AKAPP Click-Ductor® conductor system: combination of flexibility and efficiency!

Compact, reliable and safe power supply fitted with an easy click-system, for e.g. cranes and hoisting equipment.

The unique construction combines flexibility and efficiency. Click-Ductor can be used for both indoors and outdoors applications.

This brochure provides a brief summary of the extensive possibilities of the system.

For further information please refer to the AKAPP-STEMMANN Internet site : www.akapp.com.

We refer to the back cover of this brochure for detailed information on our address.

Some important features:

Optimum reliability is assured by the advantages listed below.

Quick and easy installation, based on the well-designed click-system by which the conductors are mutually connected and the joint clamps without screw connection..

Easy-to-connect conductors. The flat copper conductors, which have been provided within the synthetic housing, can be connected quickly and easily by means of a simple, patented, click-system. Unique!

Joint clamps without screw connection. The synthetic joint clamps are clicked on effortlessly, whilst no tools are used!

Dust, humidity and corrosion protection. For these conditions the Click-Ductor housing RC7 can be totally closed by the use of special flexible sealing strips.

High current capacity. Copper conductors with a variation of sections can be pulled into the channels in the housing. Standard up to 160 A. For higher ratings please consult the AKAPP sales office.

Maximum power transmission. The brushes are positively located in the PVC housing and contact with the flat copper conductors is maintained by spring pressure. This guarantees a positive contact and power transmission .

Long track lengths possible. Track lengths up to 200 m (including central feeding) can be obtained. This is applicable for outdoor installations as well.

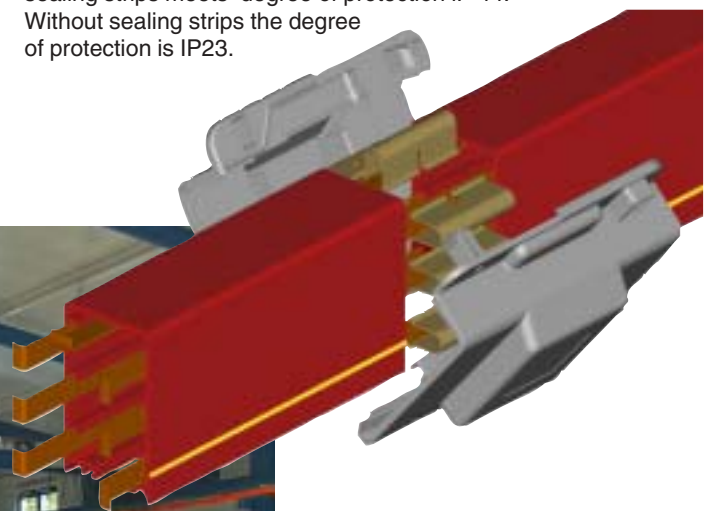
Easy to be removed rail sections. Due to the fact that the outer ends of the copper conductors are positioned against one another, the housing can easily be removed whilst the other housings do not need to be moved.

Contact safe. Due to the high insulation value of the synthetic material, the operational safety has significantly improved. Moreover, the conductor RC7 has a conspicuous red colour, which improves safety as well.

Standard of protection IP44. AKAPP Click-Ductor with flexible sealing strips complies with the standard of protection IP44; without sealing strips the standard of protection is IP23.

Self-extinguishing. For safety reasons the housing materials have a self-extinguishing feature.

Degree of protection IP 44. AKAPP Click-Ductor with flexible sealing strips meets degree of protection IP 44. Without sealing strips the degree of protection is IP23.



AKAPP Click-Ductor is based on a unique concept. Due to the well-designed click-connections the conductors provide the ultimate reliability in power transmission!

Click-Ductor® housing RC7:

complete segments, connection accomplished in seconds!

The PVC housing RC7 has 7 channels in which 4 or 7 conductors, upon request, are positioned. The capacity depends on the requirement.

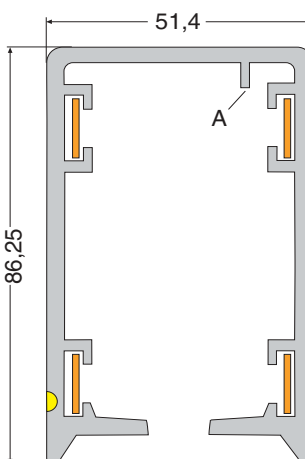
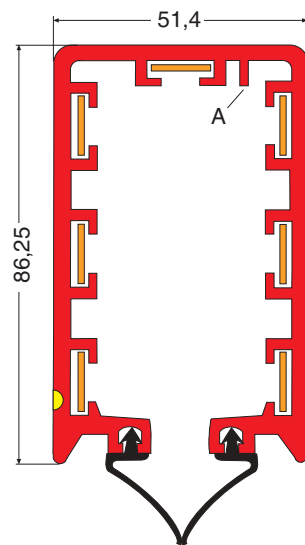
The availability of the housing is either 3 or 4 meters. Connection of the housings is established by means of joint clamps. Clamps connect the conductors. No screws are needed; installation is effected by means of simply clicking!

The PVC housing RC7 can be provided with flexible rubber strips. As such penetration of dust and moisture can be minimised as a result of which an optimum of reliability is ensured!

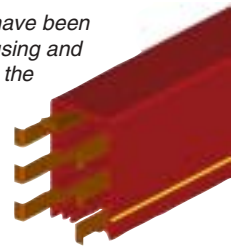
4 copper conductors have been provided in the PVC housing RC4. The conductor is positioned similar to the positioning of the RC7, however, this type cannot be provided with flexible rubber strips.

Some important features:

- ① **7 copper channels**
The copper channels offer sufficient room for 4 or 7 conductors, as required.
- ② **2 types of conductors**
The flat copper conductors, suitable for current capacity up to 50A and 80A. With parallel-mounted systems the maximum current capacity is 160A! These values are applicable at a duty cycle (DC) of 80%.
- ③ **Yellow uninterrupted earth marking**
Clearly indicates the earth conductor. Safety!
- ④ **Compact construction**
The housing is 51.4 mm wide and the height is 86.25 mm. It is therefore nearly always suitable for all situations.
- ⑤ **Easy installation**
The individual lengths and the previously installed copper conductors are easy to connect in sequence.



The copper strips have been provided in the housing and have been bent for the purpose of the connection.



- ⑥ **Anti reverse rib (A)**
Prevents improper installation of the collector trolley into the conductor housing.
- ⑦ **Dust, moisture and corrosion-sealing**
The conductor housing can be provided with a flexible rubber sealing to prevent penetration of dust or moisture.
- ⑧ **Wide temperature range**
The conductor housings RC4 and RC7 can be applied as of -20°C up to +50°C.
- ⑨ **Safety first!**
The PVC-housing is self-extinguishing and has a conspicuous red colour for additional safety. Furthermore the conductor housing RC7 has a conspicuous red colour, which indicates additional safety.

Conductors in the housings

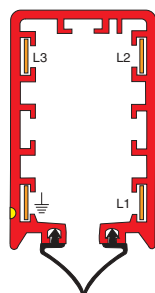
The conductors have been positioned into the housings as illustrated on the right-hand side.

Indication of a conductor housing including copper strips is e.g. **RC7-7-50**.

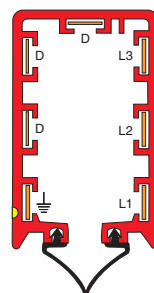
RC7 = type of housing

7 = number of conductors

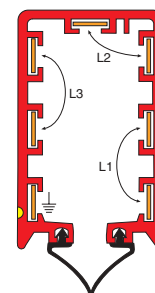
50 = capacity of the conductors



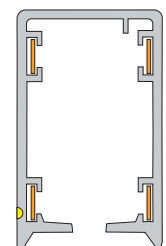
Housing RC7, standard 4-poles



Housing RC7, standard 7-poles



Housing RC7, standard 7-poles, parallel conductors



Housing RC4, standard 4-poles

Well-considered components: progress by innovation!

The summary, as detailed below, lists all standard components of a Click-Ductor-installation.

In numerous circumstances this installation is suited to construct a reliable supply system.

The ultimate performance is guaranteed due to the fact that all individual components comply to stringent quality requirements.

Quality is an aspect, continuously viewed by AKAPP-STEMMANN's Research & Development department.

If required, components can be adjusted and new components can be designed in order to further increase the user-friendliness and/or durability. As such, the installation will still comply to the requirements as imminent for such a system. You can rely on us !

Suspension and connection of conductor housings.

Sliding hanger

Type BN7-Z: galvanised

Type BN7-L: galvanised + epoxy coated

Type BN7-R: stainless steel

When expansion differences occur between the suspension frame and Click-Ductor, the latter can continuously slide in the suspension bow collectors. The bow collectors are fastened to the suspension frame by means of a bolt.

As such the installation can be aligned vertically.



BN7



VMN7

Fixed point clamp

Type VMN7-Z: galvanised

Type VMN7-L: galvanised + epoxy coated

Type VMN7-R: stainless steel

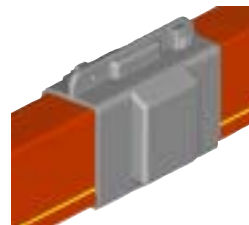
The complete conductor installation is to be fastened to the suspension frame by means of a self-gripping fixed point clamp. As of this location, the conductor housing can slide freely in the bow conductors when expansion differences, due to temperature variation, occurs.

Connector

Type Cu-C: The copper strips are mutually joined by means of these connectors. The resilient brass clamps automatically click on the outer ends of the strips. A recess as provided within the clamp ensures that the strips will continuously be held together. For copper strips as of 125 A screw connections are applicable.



Mounting of connector Cu-C



Mounted joint clamp VC

Joint clamp

Type VC: plastic

The joint clamp consist of two half parts which can easily be mutually connected by means of a click-connection.

The joint clamps have two recesses, which are provided at the inner side, in order to fasten the clamps and conductor housings.

Location of the feed box:

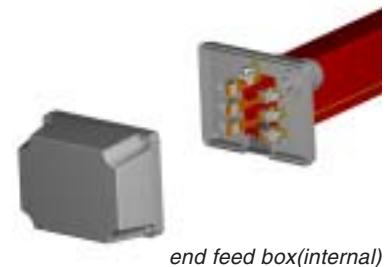
1. End feed box:

With this you can connect the feeder cable to the outer end of the Click-Ductor installation (see photograph).

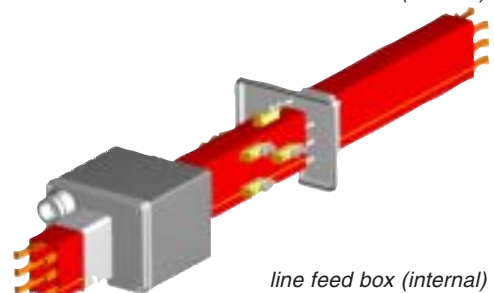
2. Line feed box:

For connection of the feeder cable on any random point of the installation. The feeder cable is connected to a line feed conductor housing (length: 1 metre) in which 7 supply terminals could be fitted. The copper conductors will not be interrupted, not even with this line feed!

Standard gland Pg28 (for cables Ø10- 28 mm). The feed boxes are available with several (smaller) glands for the feed of the litze-wires if cables with a larger core diameter or for controller cables.



end feed box(internal)



line feed box (internal)

Collector trolleys series C7/G:

excellent contact characteristics!

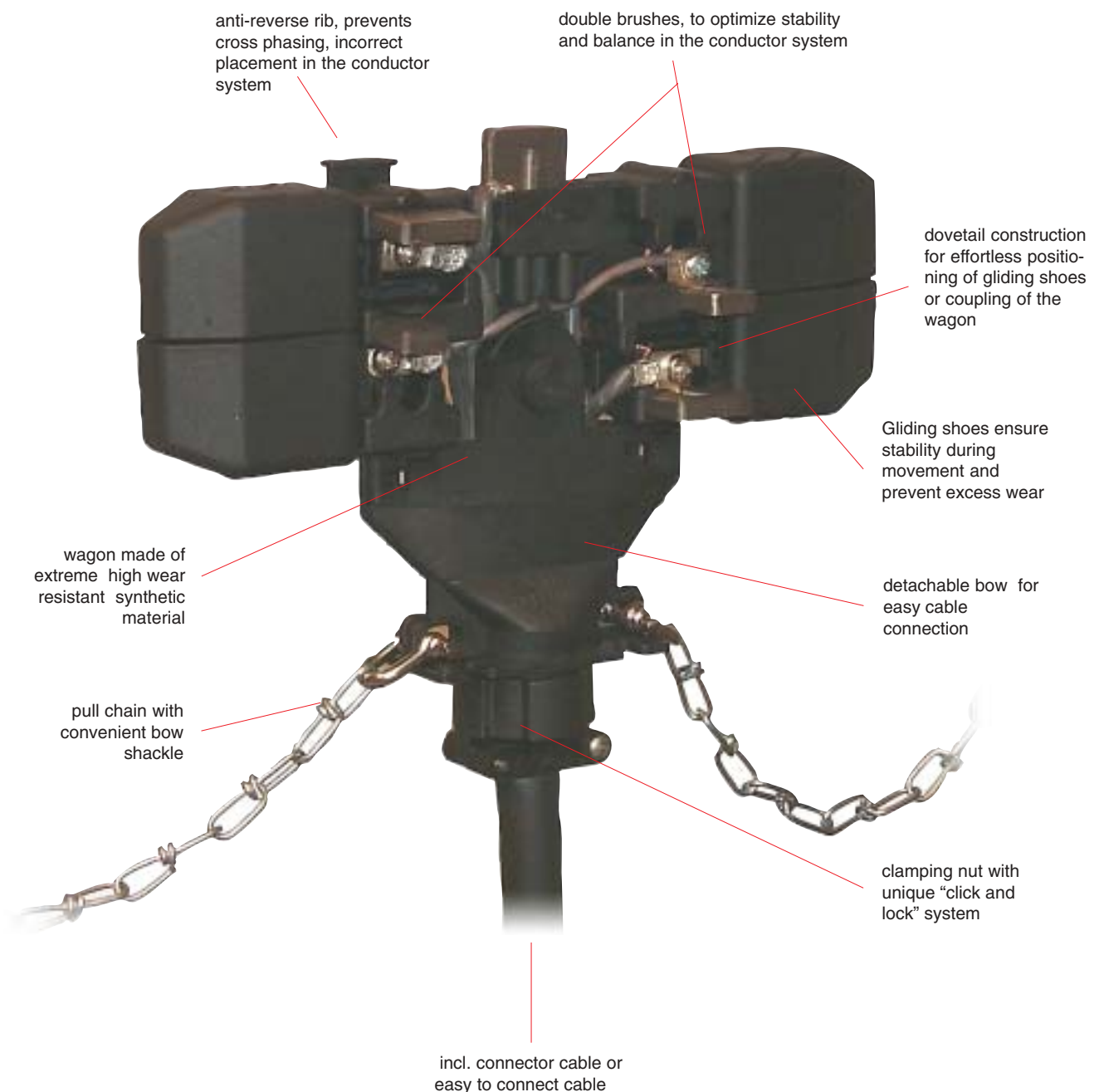
The collector trolleys are supplied for either 4 or 7 conductors, as desired and are suited for an amperage up to 35 A, 70 A and 100 A nominal (ID 60%). Running speed: 80 m/min

The collector trolley series "CL" are supplied with a connector cable (approx. 1 m) with numbered wires. The trolley series "C7" are supplied without cable.

The C(L)7/ G trolleys have been provided with wear-resistant gliding shoes. These glide perfectly over the running surface of the conductor housing and ensure a high stability of the conductors during the movement.

All collector trolleys are easy to adjust, e.g. for increasing the maximum capacity up to 70A or 100A, you can couple 1 or 2 trolleys next to each other.

The standard collector trolley with its specific characteristics:



AKAPP Click-Ductor[®] system: efficiency per linear meter!

By using AKAPP Click-Ductor, you save on costs. This starts and is evident, immediately during installation. All components are adapted to one another, as a result of which the components can be applied easily.

Ensure an even easier task and have our Technical Service install all, quickly and with expertise!

The fast experience and know-how of the material involved guarantees an optimal functioning installation.

You would prefer advice on your installation first? No problem, our advisors can assist you with all your questions, free of charge and no strings attached!

No technique without maintenance! Maintenance is however kept at a minimum and when you decide on a contract via our Technical Service, we will periodically perform the maintenance for you. As a result of such a contract, maintenance is out of your hands!

Suspension of the conductor housing

AKAPP Click-Ductor can easily be fastened to a profiled beam. In most cases the standard support brackets (available in various lengths) will suffice. These bolt connections are to be applied and adjusted easily.

The conductor housing, including the provided copper strips, can easily be moved or clicked into the steel suspension brackets. Subsequently the conductors will be joined together by means of the clamps (for copper strips 125A and 160A a screw connection will be applicable). The plastic joint clamp fits over this construction, as a result of which the conductors have been joined. Easy and quick!!

As soon as the conductor trolley has been positioned in the rail, the feed box can be connected.

If the installation is completed, you will have a guarantee for a perfect operating feed system with a high efficiency and low maintenance costs..... for years on end.



The AKAPP support brackets are of the type 'universal fitting' and easy to position and adjust!

Inspection of the collector trolley

AKAPP has ensured that the inspection of the conductor trolley can be effected quickly.

All vital components of the conductor trolley are to be replaced in a trice!

The carbon brushes are marked, this marking indicates if and when exchange is required. Due to the smooth surface of the conductors and the absence of the plug connectors, the wear of the carbon brushes minimal!

The gliding shoes are made of a high quality and wear-resistant synthetic material and require virtually no maintenance, if standard operational conditions apply.

Visual inspection of carbon brushes is rather simple due to the markings as applied.



The gliding shoes can quickly and easily be positioned due to the dovetail construction. A visual inspection is possible, for a marking is provided.



Other AKAPP conductor bar systems: always the perfect solution!

The AKAPP Click-Ductor is an ultimate reliable and efficient conductor system, which is world-wide, successfully used in indoor and outdoor installations. This brochure details a brief outline of the unique characteristics.

However, AKAPP -STEMMANN supplies many conductor systems, a fitting solution for the most diverse situations.

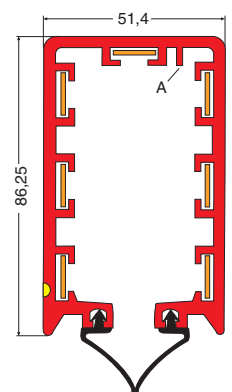
AKAPP -STEMMANN aims to provide all information you need: our professional team is available for free and non committal advice.

Further information required? Just a single telephone call, fax or e-mail will suffice. See the back cover for details or check www.akapp.com to find your nearest distributor.

Multiconductor

A compact and multi purpose conductor system. The **uninterrupted** conductors ensure a perfect transmission of **current feed-** as well as **control-** and **data signals**. Current capacities up to 320A. A flexible rubber sealing prevents penetration of dust or liquids. Well suited for extremely long tracks and high travel speeds.

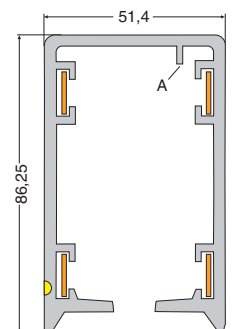
Used world-wide for cranes, traverse cars, (automated) warehouses, elevators, textile production, sluices, trains etc., even under in extremely dusty, humid or even corrosive environments!



4-Ductor

If four conductors suffice, no flexible rubber sealing is required, but you do want to make use of all the advantages of the uninterrupted conductors, opt for the most ideal conductor system for your organisation, opt for the AKAPP 4-Ductor!

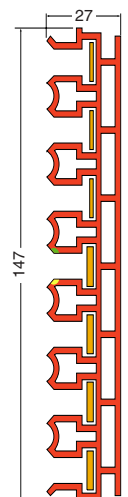
Ideal, for it has: no expansion problems, a constant and low voltage loss, a choice of 5 current intensities (see above) and virtually no maintenance. In all, an uninterrupted current supply for a variety of movable and/or mobile equipment at a **very profitable cost-benefit analysis**.



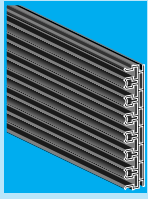
Pro-Ductor

The most compact, varied conductor system for automated warehouses and many other applications! The p.v.c. housing has a height of only 147 mm and is 27 mm wide and can be applied only centimetres above floor level. The **uninterrupted** conductors ensure a perfect transmission of both **feed, control and data signals**. Choices in current capacity from 50 A, 80 A, 125 A, 160 A up to 200 A.

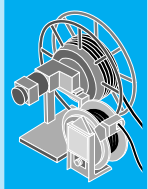
Suitable for **extreme long travelling lengths** and **high travel speeds**.



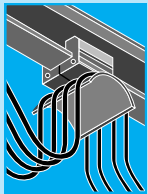
More AKAPP products:



Flat conductor bar system



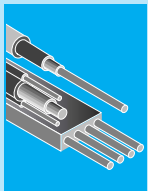
Spring- and motor driven reels



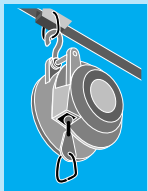
Festoon



Plastic and steel chains



Special-cables



Balancers



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AKAPP-STEMMANN is represented world-wide in over 40 countries!