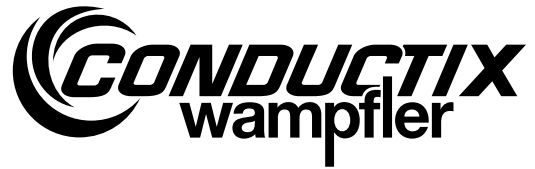


# Operating Instruction



## E-Pickup 1.5 kW

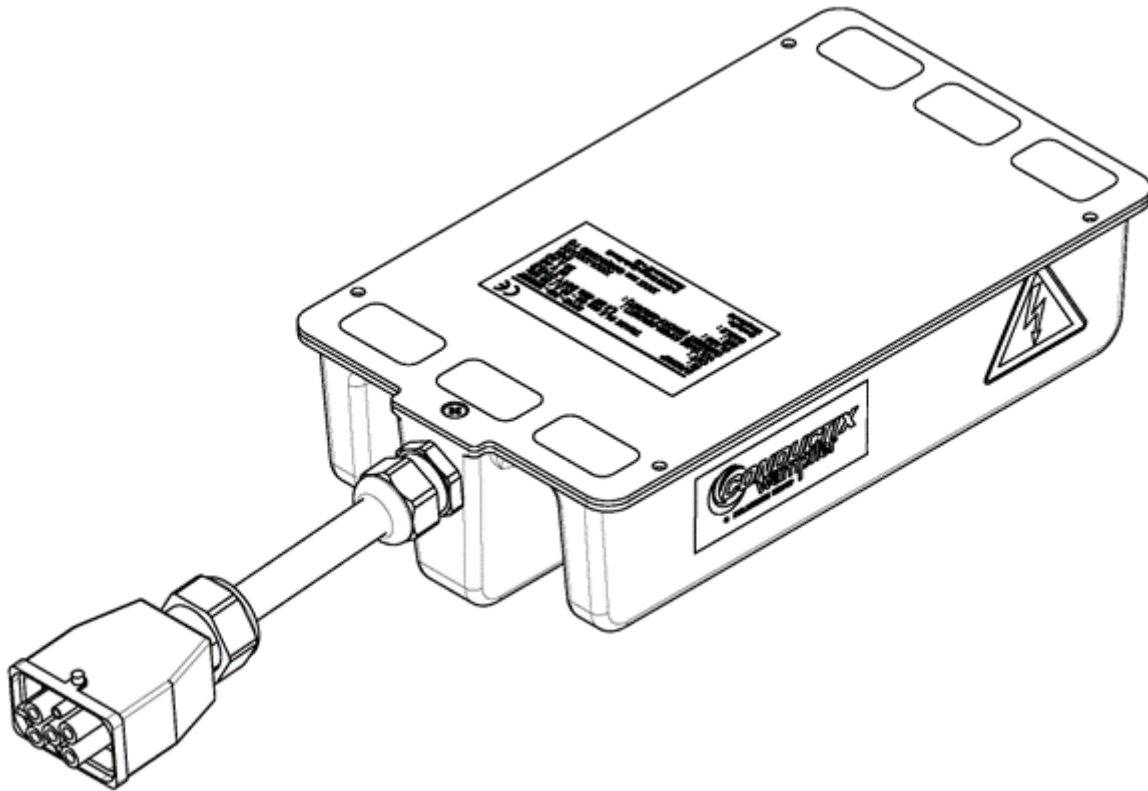
40% Duty Cycle; Q4/2 Plug

---

### Part Number

91108-310-3198705	1.5 kW E-Pickup; 40% Duty Cycle; 1150 mm, Q4/2 Plug
91108-310-3192260	1.5 kW E-Pickup; 40% Duty Cycle; 420 mm, B 90°
91108-310-3112884	1.5 kW E-Pickup; 40% Duty Cycle; 420 mm, D 135°
91108-310-3093037	(Configurable version)

(Regulators must be ordered separately)



Drawing shows pickup with straight cable outlet.





**Contents**

- 1 General Advice ..... 4
  - 1.1. Information to these Operating Instructions ..... 4
  - 1.2. Limitation of Liability ..... 4
  - 1.3. Copyright ..... 5
  - 1.4. Spare Parts ..... 5
  - 1.5. Material Defects ..... 5
  - 1.6. Technical Support ..... 5
- 2 Safety Advice ..... 6
  - 2.1. Definition of Symbols ..... 6
  - 2.2. Requirements Regarding Personnel ..... 7
    - 2.2.1. Qualification ..... 7
    - 2.2.2. Unauthorized Persons ..... 7
  - 2.3. Application in accordance with the Regulations ..... 8
- 3 Advisory Information for the User ..... 8
- 4 Intended Purpose ..... 9
- 5 Warnings and Cautions ..... 9
- 6 Technical Data ..... 10
  - 6.1. Electrical Data ..... 10
  - 6.2. Environmental Data ..... 11
  - 6.3. Mechanical Integration ..... 12
  - 6.4. Electrical Connections ..... 13
    - 6.4.1. Power Output ..... 13
    - 6.4.2. Ground Connection ..... 13
- 7 Scope of Delivery ..... 13
- 8 Transport, Packing and Storage ..... 14
  - 8.1. Transport ..... 14
    - 8.1.1. Safety Advice for Transport ..... 14
    - 8.1.2. Transport Inspection ..... 14
  - 8.2. Packing ..... 14
  - 8.3. Storage ..... 15
- 9 Installation ..... 16

## E-Pickup 1.5 kW

### 40% Duty Cycle; Q4/2 Plug

---

9.1.	Who is Authorized to carry out the Installation?	16
9.2.	General Advice for the Installation	16
9.3.	Electrical Regulations	16
9.4.	Place and Conditions of Installation	17
9.4.1.	Position	17
9.4.2.	Air Flow Required	18
9.4.3.	Proximity to Iron / Steel	19
9.4.4.	Attachment Points	20
10	Positional Tolerances	20
11	Maintenance	22
12	Fault Diagnosis	22
13	Disassembly and Disposal	23
13.1.	Safety	23
13.2.	Disassembly	24
13.3.	Disposal	24
14	Accessories	25
15	Tools	25

**This operating instruction is based on the following Documentation-No.: OM9100-0128b-EN!**

#### Important:

Company names and trademarks mentioned in this manual which are registered and protected trade names and marks by copyright remain the property of the companies themselves.

We reserve the right to carry out technical modifications of illustrations and statements in these operating instructions in order to improve the energy supply system and its function.

System related details please find in the system manuals. Refer always to the system documentation before starting any work on the system or components within the system or before operating the system.

Reprint and duplication (as well as extracts) are only allowed with permission from Conductix-Wampfler GmbH.

© Conductix-Wampfler GmbH 2017

## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

---

### 1 General Advice

---

#### 1.1. Information to these Operating Instructions

These installation and operating instructions allow the safe and efficient handling of the E-Pickup, hereinafter referred to as the device.

The installation and operating instructions are part of the equipment and must be stored close to the equipment and always available to the personnel. The personnel must have read carefully and understood these installation and operating instructions prior to starting work. The basic requirement for safe working is the observance of all safety advice and guidelines specified in these installation and operating instructions. Moreover you have to observe the local accident prevention guidelines and the general regulations for the application of the equipment.

Illustrations in this documentation are for basic comprehension and can deviate from the real design of the equipment.

All stated values are based on the metric system. If units of measurement have been omitted, millimeter (mm) apply.

Complementary instructions given in track installation manuals for specific applications, i.e. MV9100-0038 for EMS systems, must be observed at all times, if of relevance for the installation and operation of the equipment. References to other documents specifying the document number do not include the revision index. Refer to the project handbook when available for a list of relevant documents.

#### 1.2. Limitation of Liability

All information and instructions of this operating instruction have been compiled with due regard to the standards and regulations in force, best engineering practice and the findings and experience we have accumulated over many years.

The manufacturer does not accept liability for damage due to:

- Non-observance of the operating instructions
- Improper use
- Use by untrained personnel
- Unauthorized modifications
- Technical modifications
- Use of unauthorized spare parts and accessories
- Improper installation by unqualified installation personnel

The effective volume of delivery may deviate from these explanations and descriptions in case of special design, the utilization of additional order options or on account of the latest technical modifications.

The commitments of the supply contract, the general terms and conditions as well as Conductix-Wampfler's terms of delivery and the legal regulations at the time of the conclusion of contract have to be observed.

We reserve the right of technical modifications in the context of revision of useful properties and further developments.

## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

---

### 1.3. Copyright

These installation and operating instructions are subject to copyright and intended for customer internal use only.

Providing third parties with the installation and operating instructions, duplications in any form - even in extracts - as well as reuse and/or disclosure of the contents are not permitted without written approval of the manufacturer, except for customer internal purposes.

Violations will be subject to damages. This will not exclude additional claims. The manufacturer is the holder of the copyright. We reserve the right for technical modifications of illustrations and specifications in these operating instructions that serve for the improvement of the systems and their functions.

### 1.4. Spare Parts



#### WARNING!

#### Safety risk due to wrong spare parts!

The utilization of wrong or faulty spare parts may cause danger to persons as well as damage, malfunctions or total failure.

- Use only original spare parts of Conductix-Wampfler or spare parts approved by Conductix-Wampfler!
- If uncertain always contact the manufacturer.



#### ADVICE!

The product warranty expires with the use of unauthorized spare parts. Spare parts must be ordered from your licensed dealer or directly from the manufacturer. Address see last page of these instructions.

### 1.5. Material Defects

The regulations about material defects are listed in the general terms and conditions of business.

### 1.6. Technical Support

For technical support please contact our staff from the Customer Support Department.

Moreover, our staff is constantly interested in new information and experiences, which will arise from the application and which might be valuable for the improvement of our products. Please also contact our customer service in this context.

## 2 Safety Advice

---

### 2.1. Definition of Symbols

Safety and hazard information is identified in these installation and operating instructions by symbols. Signal words are used to indicate the degree of hazard. Always observe safety and hazard information and work carefully to avoid accidents, bodily harm or property damage!



**DANGER!**

... indicates an imminent danger, which might cause deathly or serious injuries if not avoided.



**WARNING!**

... indicates a possibly dangerous situation, which might cause deathly or serious injuries if not avoided.



**CAUTION!**

... indicates a possibly dangerous situation, which if not avoided, may result in moderate or minor injury and property damage.



**ADVICE!**

**Advice and recommendations:**

... gives advice and recommendations as well as information for efficient and trouble-free operation.

#### Special safety notes

The following symbols are used to point out special risks:



**DANGER!**

This combination of symbol and signal word indicates an imminent dangerous situation caused by electrical power and/or electrical voltage. If a labelled hint like this is not observed this may result in heavy or deadly injuries.



**WARNING!**

This sign draws the attention to parts of the operating instructions, where special care must be taken on account of heating of surfaces or on account of inductive heating of ferromagnetic material and where other special measures have to be taken.

## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

---



**WARNING!**

This sign warns of the risks of electrostatic discharges (ESD).

→ Comply with the respective ESD measures before and during work at the open device, e.g. by means of a grounding bracelet.

→ Connection to the ground must be assured at all times.

## 2.2. Requirements Regarding Personnel

### 2.2.1. Qualification



**WARNING!**

**Risk of injury due to insufficient qualification!**

Incorrect handling can cause serious injuries to persons and heavy damage to property.

→ All activities must be carried out by qualified staff!

The operating conditions indicate the following qualifications for the various fields of activity:

- **Electrician**
- When the cables have been terminated correctly by authorized personnel having received instruction exclusively from Conductix-Wamplfler, further work may be performed by an electrician.
  
- **Instructed personnel/operators**
- have been instructed by the operator about the tasks assigned to them and the possible dangers in case of improper behavior.
  
- **Specialized staff**
- is able to carry out the work assigned to them and realize and avoid any dangers in this regard, based on their training, knowledge, experiences and knowledge of the respective regulations.
- Only those persons are authorized for these works, who are expected to do their work properly. Persons with restricted responsiveness, e.g. due to drugs, alcohol or medication, are not permitted.
- For the selection of personnel observe the age-specific and job-related prescriptions effective at the place of installation.

### 2.2.2. Unauthorized Persons



**WARNING!**

**Danger caused by unauthorized personnel!**

Unauthorized personnel, who do not meet the requirements described hereunder, are not familiar with the dangers that might occur within the working area.

→ Keep unauthorized personnel away from the working area.

→ In case of doubt clarify authorization and qualification and dismiss unauthorized persons from the working area in case there are any doubts remaining regarding authorization and qualification.

→ Interrupt the work as long as there are unauthorized persons within the working area.

### 2.3. Application in accordance with the Regulations

The equipment has been exclusively designed and constructed for the intended purpose.



#### WARNING!

#### Danger caused by application not in accordance with regulations!

Each application of the equipment not in accordance with and/or different from the regulations can result in dangerous situations.

Only use the equipment in accordance with the regulations.

Any details of these operating instructions must be strictly observed.

The following applications of the equipment are prohibited. Applications not in accordance with regulations are as follows:

- Application of the equipment with accessories not permitted or authorized by the manufacturer.
- Operation of the equipment by not instructed personnel.
- Operation of the equipment outdoors.
- Operation of the equipment with installation on an improper foundation/subsurface.

Any claims due to improper application are excluded. The operator is responsible for any damage due to improper application.

---

## 3 Advisory Information for the User

---



#### WARNING!

This device contains life threatening voltages. Improper handling/operation or faulty installation can result in electric shocks and/or burns as well as material damages. There are no user serviceable parts in the device. Do not open, do not insert any objects inside.



#### ATTENTION!

All electric installation and commissioning work as well as repair work and disassembly have to be carried out by qualified staff (IEC 364 respectively CENELEC HD 384 or DIN VDE 0100 and IEC 664 or DIN VDE 0110 and national safety rules). Qualified staff according to the safety regulations are persons that are familiar with the installation, assembly, commissioning and operation of the energy supply system and that have the appropriate qualifications.

Conductix-Wampller cannot be responsible for damage and breakdown that have been caused by not observing this manual.



#### WARNING!

This manual contains exclusively details of the specified device.

Observe all instructions and technical data given in this manual. Ensure that the device is operated under the specified conditions only.

Do not start up the device or related devices within the system until you have made sure that the machine/system it is integrated into complies with the applicable norms, standards and directives and that conformity is stated.



## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

---

### 4 Intended Purpose

---

The intended purpose of this device is for use in conjunction with other components for the inductive transfer of electrical power.

The device produces an AC voltage output from the AC magnetic field generated by a Track.

The device is not suitable for stand-alone operation and must be used in conjunction with the appropriate components.

Qualified personnel only may operate this equipment.

---

### 5 Warnings and Cautions

---



**WARNING!**

All electric work has to be carried out by qualified staff (IEC 364 respectively ENELEC HD 384 or DIN VDE 0100 and IEC 664 or DIN VDE 0110 and national safety rules).

Qualified staff, according to safety regulations, are persons that are familiar with the installation, commissioning and operation of the energy supply systems and that have the appropriate qualifications.



**ATTENTION!**

The devices are only foreseen to be operated in conjunction with matching components. If you are not sure whether components match, contact Conductix-Wampfler. Do not put into operation before.

Do not use the output of the device for any other reason than to connect it to a corresponding Regulator. Connecting the device to a Regulator should only take place when the Track is not under power.

Route power and control cables separately so that no interference can occur.



**WARNING!**

Do not install an obviously damaged device. Do not take damaged devices into operation. Severe damage may result. Ensure that protection device and other preventive measures taken comply with the applicable regulations. Make sure that all connected circuits fulfill at least the same safety standards as the device and fulfill requirements for safe operation.

During or after operation surfaces of devices may be hot. Use caution! Prevent access to hot surfaces if necessary. Refer to chapter 6.3 "Mechanical Integration" for more information.

Ensure adequate ventilation. Refer to chapter 9.4 "Place and Conditions of Installation".

Do not open devices, do not insert any objects inside and do not touch connection terminals. The only safe means of working on circuits connected to the device is to ensure that the primary Track is switched off and then to disconnect physically the plug. Make sure that connections are not removed under dangerous conditions, i.e. under load. Improper handling can result in electric shocks or burns as well as damage to the devices!

Do not perform any work on or around the device while in operation. **Life threatening danger of electrical shock!**

---

## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

---

### 6 Technical Data

---



#### WARNING!

The data specified in this section are valid only if the requirements regarding the environment of the device (nominal position, ambient temperature, etc...) are respected.



#### ATTENTION!

For instance, the layout of the Track, the variations with respect to nominal position of a device, or the ambient temperature around a Regulator, may lead to a reduction of the peak and/or continuous power available.

Regulators and Pickups (device) are not designed for independent operation. Refer to both operation manuals together.



#### WARNING!

#### 6.1. Electrical Data

■ Input	Track 80 A, 20 kHz
■ Nominal peak output power	max. 1500 W under adequate condition of operation (see chapter 9.4 and 10).
■ Continuous output power	1500 W at 20°C ambient with > 1 m/s air flow 600 W (1500 W 40% within 10 minute period) at 40°C ambient with > 1 m/s air flow Note: Air flow requirements for the Power Regulator may be different.  <b>Usable output power depends on regulator connected (see corresponding manual)</b>
■ Output voltage	410 V AC at 1500 W (nominal air gap) 170 V AC at 600 W (nominal air gap) 83 V AC open circuit (nominal air gap and disconnected from Regulator)  <b>Usable output voltage depends on regulator connected (see corresponding manual)</b>
■ Output current	19 A AC at 1500 W, 7A AC at 600 W  <b>Usable output current depends on regulator connected (see corresponding manual)</b>
■ Heat loss	Approximately 20 W at 1500 W with 40% duty cycle
■ Electrical protection	Class II (reinforced internal insulation)
■ Insulation to Ground	Output to Ground tested at 5 kV DC / 1 sec.

## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

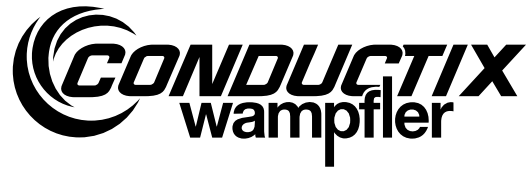
---

### 6.2. Environmental Data

- |                         |   |
|-------------------------|---|
| ■ Storage temperature   | -20°C to +60°C  |
| ■ Transport temperature | -40°C to +80°C  |
| ■ Ambient temperature   | +0°C to +40°C<br>Air temperature as measured in immediate vicinity of working device.<br>Please note that the heat loss of the device will raise the ambient temperature, especially in enclosed mounting spaces. |
| ■ Operation             | For indoor operation only.  |
| ■ Humidity              | < 95%, non-condensing   |
| ■ Chemical resistance   | For industrial use without special conditions.<br>Any specific influences of chemicals must be checked.   |
| ■ Protection rating     | IP54 when plug is in place.   |
| ■ EMC environment       | The device is designed for use in industrial environments (EN55011 Class A).  |
| ■ Installation altitude | Up to 1000 m; continuous output power must be de-rated for higher altitudes.  |

The use in explosion-proof areas or in areas where the device is exposed to harmful oils, acids, vapors, dust, gases, radiation, humidity, etc. is explicitly forbidden.

# Operating Instruction

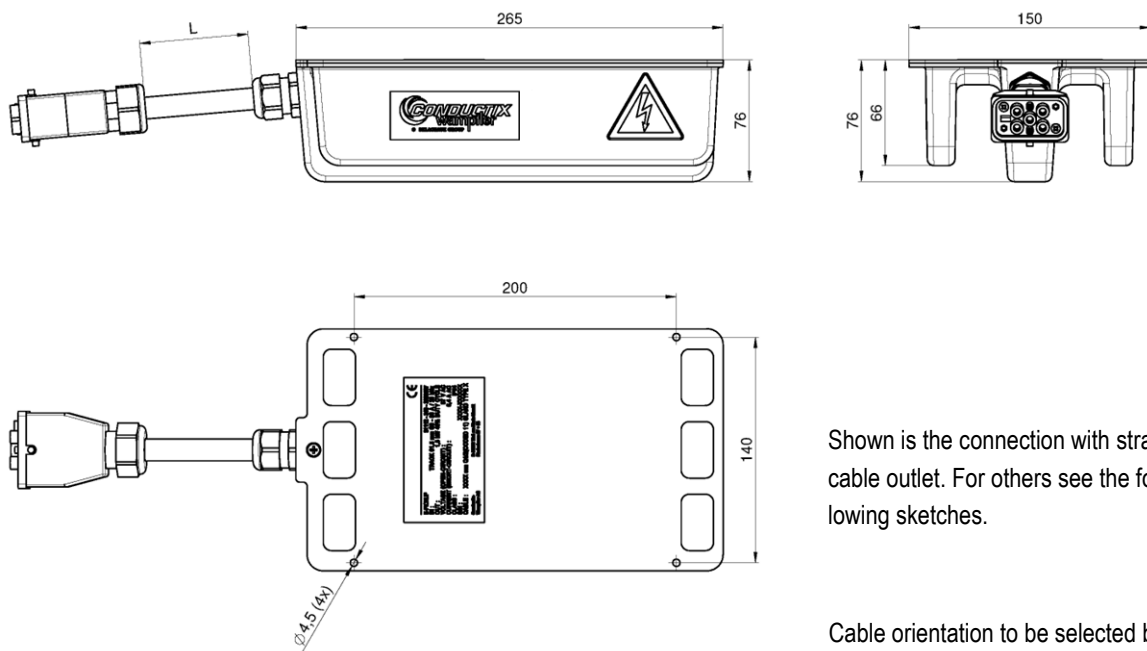


## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

### 6.3. Mechanical Integration

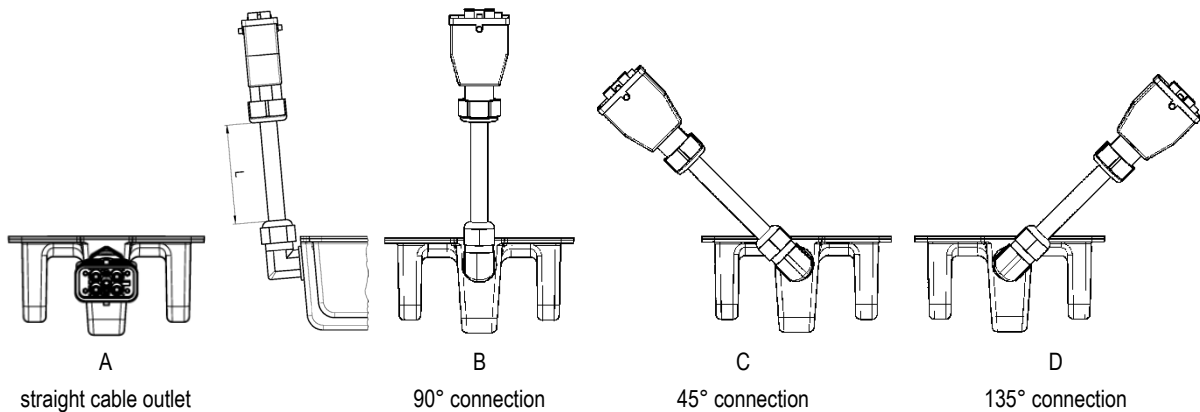
- Dimensions See drawing (L nominal = 1150 mm; other lengths pre-configurable, on request)
- Weight 4.2 kg
- Surface temperatures Surface temperature may reach up to 70°C depending on operating conditions.
- Standard Cable Orientation Dimensions:



Shown is the connection with straight cable outlet. For others see the following sketches.

Cable orientation to be selected before order, not changeable after production.

- Special Cable Orientation Dimensions:



Dimension "L" = 1150 mm; other lengths pre-configurable, on request

### E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

---

#### 6.4. Electrical Connections

##### 6.4.1. Power Output

The output of the device must be connected to a suitable Regulator. The use of an extension cable between the Regulator and the device is generally not allowed.

For minimal interference and maximum electromagnetic compatibility, route the device cable away from other cables, and at a minimum distance of 15 mm - one time the cable diameter - away from any metal structure.

##### 6.4.2. Ground Connection

All electrical equipment must be connected together to the vehicle frame to ensure an equipotential bonding. The ground output of each plug must therefore be connected. In the same way, make sure to connect the housing of the device to the vehicle frame (GND) and not rely only on the connection to ground provided by the power connector. The reason is that if the connection with the Regulator is removed while the inductive power transmission system primary is active, then the device is still internally energized though the ground connection is broken.

---

## 7 Scope of Delivery

---

Mounting elements (screws etc.) are not included in the scope of supply. No other parts are necessary for the connection of the device to a Regulator.

## 8 Transport, Packing and Storage

---

### 8.1. Transport

#### 8.1.1. Safety Advice for Transport



**CAUTION!**

##### **Damage from improper transport!**

Improper transport can result in substantial property damage.

- Act with care when unloading the packaged unit as well as during internal transport and observe the symbols and the hazard information on the packaging.
- Remove packaging only shortly before installation.
- Pay attention to product specifications.

#### 8.1.2. Transport Inspection

Delivered goods must be checked immediately after arrival for completeness and transport damage

If any transport damage is recognizable from the outside, proceed as follows:

- Do not accept the delivery or only with reservation.
- Note extent of damage on the transport documents or on the delivery note of the carrier.
- Initiate complaint.



**ADVICE!**

Complain about each fault, as soon as you have noted it. Claims for damages can only be raised within the respective terms.

### 8.2. Packing

The individual packages have been packed and labelled according to the expected transport conditions for a (closed) truck transport. If special conditions are to be taken into account, please notify us in advance.

The packing shall protect the individual components up to the assembly from transport damage, corrosion and other kind of damage. This is the reason why the packing material should not be destroyed and only be removed immediately before starting with the assembly. For further transportation or return it must be ensured that at least equivalent packaging is used and the packing is labelled as required.

#### **Handling of packing material:**

Dispose of packing material according to the respective legal regulations and local prescriptions.



**CAUTION!**

##### **Damage caused to the environment by faulty disposal!**

## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

---

### 8.3. Storage

Store packages under the following conditions:

- Do not store in the open air.
- Keep in a dry and dust-free atmosphere.
- Do not expose to aggressive media.
- Protect from solar radiation.
- Avoid mechanical vibration.
- Before use, make sure the device is still in perfect condition.



#### ADVICE!

In case goods are delivered with specific storage instructions or specific hints on the package, those must be observed. They may overrule the above requirements if they are more demanding than the above requirements.



#### CAUTION!

If the storage or ambient temperature is below 10 °C or if it deviates from the operating temperature by more than +/- 15 °C, leave the device de-energized for at least 12 hours at operating temperature. We generally recommend a 12-hour rest period switched off and in a de-energized state at operating temperature prior to installation and commissioning. Ideally, installation and commissioning take place at a temperature ranging from 10 °C to 30 °C.

## 9 Installation

---

### 9.1. Who is Authorized to carry out the Installation?



**WARNING!**

All installation and commissioning work as well as maintenance work and disassembly have to be carried out by qualified staff (IEC 364 respectively CENELEC HD 384 or DIN VDE 0100 and IEC 664 or DIN VDE 0110 and national safety rules).



**ATTENTION!**

Qualified staff according to the safety regulations are persons who are familiar with the assembly and installation of the energy supply system and who have the appropriate qualifications.

### 9.2. General Advice for the Installation



**ATTENTION!**

After receipt of the components, and prior to starting the installation work:

- 1 Unpack the components and check carefully for damage that may have occurred during transport or storage (damage to housings and insulation, missing parts etc.).
- 2 Check data on the identification plate to make sure that the components meet the requirements with regard to nominal power and voltage and that they are matching parts to the Regulator used.
- 3 Check completeness of the documents and conformity with the delivered components.

The device has to be installed on an even surface and in a permanently safe position. An improper installation of the energy supply system has a negative impact on the function, the efficiency and the lifetime of the device. It is therefore important to observe the specification for the choice and place of installation. The guarantee will expire if this is not observed.

Follow the instructions of chapter 9.4 for attaching the device to a supporting structure. See also chapter 6.4.2 for making the connection to ground.

### 9.3. Electrical Regulations



**ATTENTION!**

The general electrical operating conditions according to VDE 0100 (installation and operation of electrical equipment up to 1000 V) have to be observed. If necessary apply the local regulations when they go beyond or differ from these requirements.



## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

### 9.4. Place and Conditions of Installation



**ATTENTION!**

Install the Regulator in an environment and under conditions as specified in this document only. The device is to be attached to a solid base, ensuring free space around the device to provide sufficient cooling air circulation.

The available output power as specified in this document strongly depends on the ambient conditions of the device. Refer to chapter 6.1 for more information.

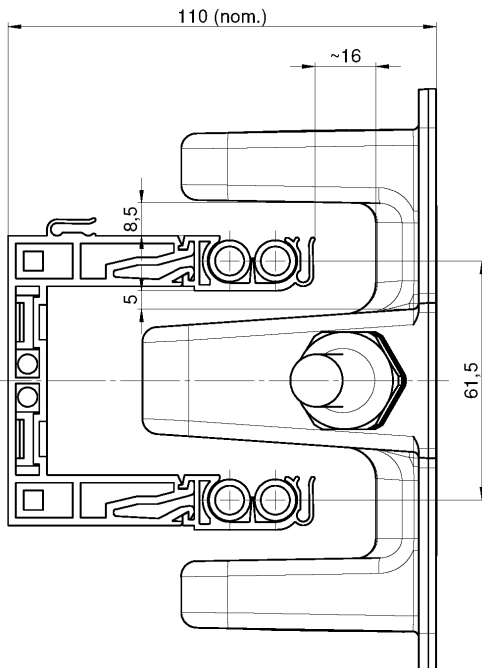
#### 9.4.1. Position



**ATTENTION!**

Maximum tolerances are given in the illustration below in the case of an installation in nominal position over a straight Track.

Tolerances must be defined taking into account the whole system design, i.e. curves, bifurcations or obstacles in order to avoid any risk of collision.



Technical data stated in this manual are given for devices when mounted in their nominal position:

- horizontal: 110 mm\*
- vertical: centered between the Track cables
- parallel to the primary Track (see below)

Nominal Tolerances:

- horizontal: -10 mm, +5 mm
- vertical:  $\pm 5$  mm

The vertical tolerance is for mechanical purpose only, in order to avoid collision. The horizontal tolerance will strongly affect the output characteristic; refer to chapter 10 for more information.

The non variable parameter is understood to be at nominal value.

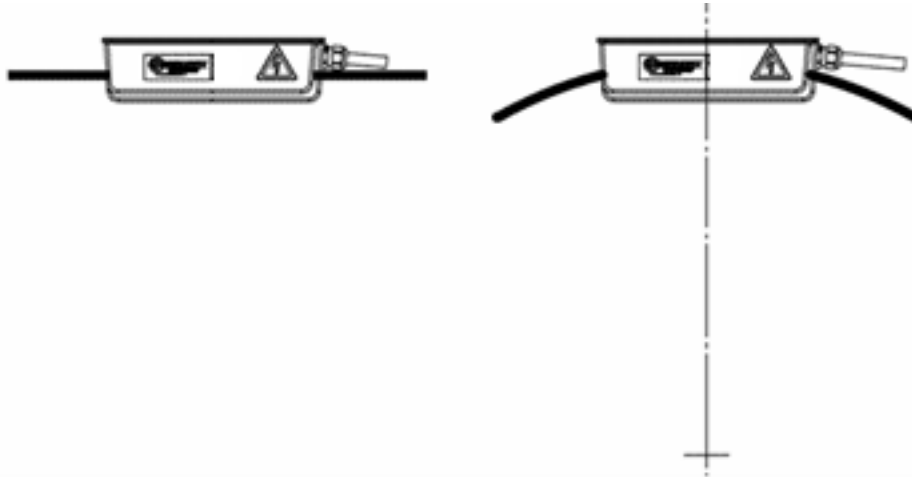
\* = between the supporting structure for the cable holders and the aluminum plate of the device (see illustration).

## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

---

The nominal position of the device on a straight Track as well as in curves is parallel to the Track cables.



### 9.4.2. Air Flow Required

The heat power of the device is dissipated by convection and radiated cooling only. Ensure that free flow of air is guaranteed around the device at all times. It is essential to make sure that the air flow  $> 1$  m/s is not hindered in any way by objects and that the device is protected from additional heating, i.e. exposure to sun light or hot air flow from inverters, proximity to brake resistors.



**ATTENTION!**

Confined areas must be adequately ventilated, allowing also for the heat generated by the device which can reach about 20 W under rated load conditions.



**WARNING!**

Failure to satisfy these requirements may result in reduced performance, damage and/or reduction in lifetime.

## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

### 9.4.3. Proximity to Iron / Steel



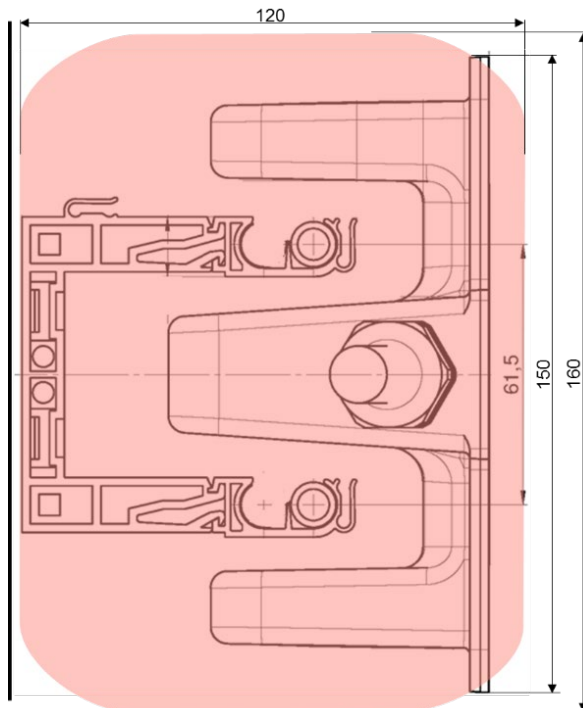
**ATTENTION!**

Ferromagnetic material (iron, steel...) will influence the characteristics of the device, i.e. lower output power, production of additional heat/losses, etc. We strongly recommend to respect the specifications for areas free of ferromagnetic material as shown in the illustration below for the device and even to go beyond these requirements whenever possible.



**WARNING!**

For recommended areas free of ferromagnetic material around the Track cables, please refer to the entire documentation related to the installation of a system. Check the Power regulator is also compatible with an "Air" or "EMS" mounted device otherwise power availability may be reduced.



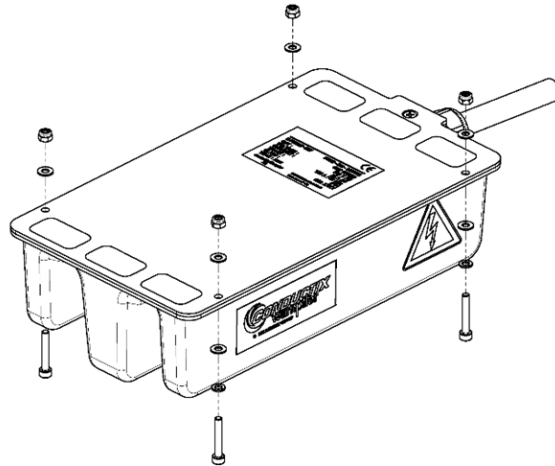
## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

---

### 9.4.4. Attachment Points

Use the four holes available on the plate to attach the device to a supporting structure. We recommend the use of washers on both sides of the plate. The positions and dimensions of the holes are shown in chapter 6.3 "Mechanical Integration".



---

## 10 Positional Tolerances

---

The data concerning the device specified in this documentation strongly depend on the interaction with the attached Regulator. The validity of these specifications depends on the respect of the nominal position of the device and its environment (see chapter 9.4), but also relies on the adequate environment of the Regulator attached to it. Always refer together to the operating instructions of a Regulator and of its designated device.

The power ratings - peak power as well as continuous power - of the combination device and Regulator will be affected by the relative position of the device to the Track and therefore by the layout of the Track, i.e. bifurcations, curves, influence of ferromagnetic material, etc. (see chapter 9.4).

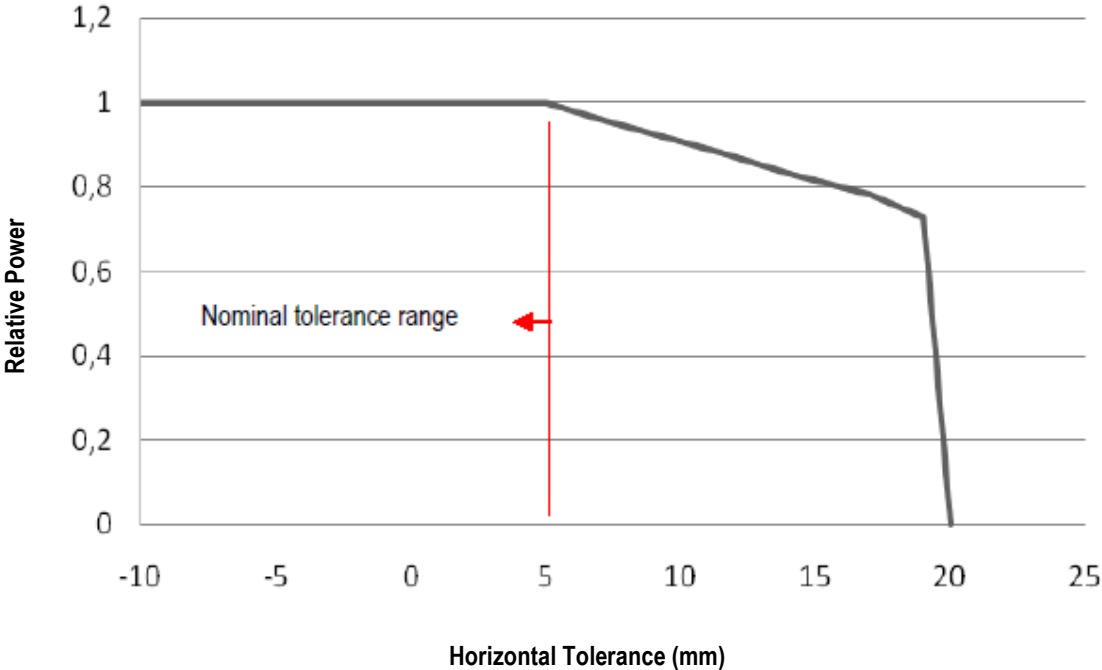
The following curve shows the typical output power **over a straight Track** as a function of displacement. Operation outside of nominal tolerances should be restricted to short durations to maximize lifetime of the attached Power Regulator.

The nominal position is taken as reference and is shown as 0 mm. A positive displacement i.e. + 10 mm is when the device is further away from the Track cables. A negative displacement is when the device is closer. Please refer to chapter 9.4.1 for the definition of the nominal position.

Example for 65 V DC output Power Regulator under constant current load:



E-Pickup 1.5 kW  
40% Duty Cycle; Q4/2 Plug



## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

---

### 11 Maintenance

---



**ATTENTION!**

There is no specific maintenance required other than checking regularly that a free air flow for cooling is given and that there are no damages visible from the outside which could indicate collisions.

Strong soiling or obstacles that would prevent sufficient cooling conditions must be avoided.



**WARNING!**

**Metallic parts may be heated by induction!**

The presence of small ferromagnetic parts must be avoided along the traveling path of the device.

Any repair work is only possible at Conductix-Wampfler.

---

### 12 Fault Diagnosis

---



**WARNING!**

**Risk of injury due to improper fault clearance!**

Improper fault clearance may cause heavy injuries or damage to property.

- In case of disturbance contact the manufacturer.
- Fault clearance must only be carried out by workers of the manufacturer or by personnel authorized by the manufacturer.  
Typical fault indicators are:
  - Plastic components getting brown or black or showing signs of melting.
  - In case of any such fault recognized, do stop operation immediately.

Unless otherwise arranged return parts to your nearest Conductix-Wampfler facility or to Conductix-Wampfler for repair. Before returning any parts, contact Conductix-Wampfler for specific instructions. Be sure to include the following information when returning parts to Conductix-Wampfler:

- Product name
- Material number
- Serial number
- Application/Installation, in case with a brief description
- Wiring schematic of overall system, if at hand
- Fault description
- Circumstances the fault occurred at, especially if any unusual events preceded the fault
- Presumption what could have caused the fault
- Photo, if available

## 13 Disassembly and Disposal

---

### 13.1. Safety



#### WARNING!

All electric work has to be carried out by qualified staff (IEC 364 respectively, CENELEC HD 384 or DIN VDE 0100 and IEC 664 or DIN VDE 0110 and national safety rules).

Qualified staff, according to the safety regulations, are persons that are familiar with the installation, assembly, commissioning and operation of the energy supply system and that have the appropriate qualifications.



#### ATTENTION!

If it is necessary to exchange the device due to damage or to install it in another place, verify that no damage will occur during disassembly.

For installation in another place observe the described mounting and commissioning instructions. Improper application, installation or operation involve the danger of severe injuries to persons and damage to objects.



#### WARNING!

#### **Risk of injury due to improper disassembly!**

Stored residual energy, angular components, tips or corners at or in the device or at the required tools may cause injuries.

- Make sure the system does not carry any current anymore!
- It needs at least an electrician to switch off the system!
- Make sure there is enough room prior to starting work.
- Be careful with open, sharp-edged components.
- Ensure that the workplace is clean and tidy! Loose components or tools lying around may cause accidents.
- Dismount components properly.
- Secure components, so that they cannot fall down or turn over.
- In case of questions, consult the manufacturer.

## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

---

### 13.2. Disassembly

When the device has reached the end of its useful life, disassemble it and dispose of it in an environmentally compatible way. If in doubt, contact Conductix-Wampfler or your supplier.

Clean assemblies and components properly and dispose of them with regard to the valid local instructions for operational safety and environmental protection.



**WARNING!**

- Disconnect the system from the mains voltage.
- Make sure the system cannot be powered up again accidentally.
- After disconnecting the Track Supply from the supply voltage wait at least 5 minutes for internally stored energy to discharge.



**ATTENTION!**

- Dismount the device.
- Dispose of components in a specific way.

### 13.3. Disposal

If return or disposal arrangements have not been made, use decomposed components for recycling:

- Scrap metals.
- Provide plastic elements for recycling.
- Dispose of remaining components separately according to the material composition.



**CAUTION!**

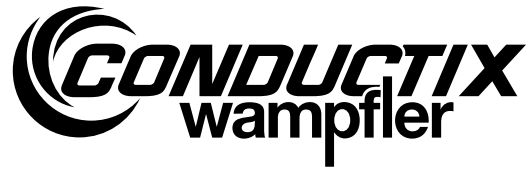
#### **Environmental damage due to incorrect disposal!**

Electronic scrap, electronic components, lubricants and other auxiliary material are considered as hazardous waste and may only be disposed of by authorized specialized service centers!

The local authority or specialized service centers for disposal give advice as to environmentally compatible disposal.



# Operating Instruction



## E-Pickup 1.5 kW

40% Duty Cycle; Q4/2 Plug

---

### 14 Accessories

---

The output of the device must be connected to a suitable Regulator. The use of an extension cable between the Regulator and the device is generally not allowed.

Both Regulator and Pickup (device) strongly depend on each other. Please refer to both operation manuals together. Limiting conditions for one device limit the operation of the other, i.e. if the ambient temperature around a Regulator is higher than the one specified, the maximum continuous power available will be decreased even if the device itself is sufficiently cooled.



Corresponding Regulators must be ordered separately through Conductix-Wampfler.

For details on the version to order, please refer to the documentation BAL9100-0127.

---

### 15 Tools

---

There are no special tools required.

**Conductix-Wampfler GmbH**  
Rheinstraße 27 + 33  
79576 Weil am Rhein - Märkt  
Germany

Phone: +49 (0) 7621 662-0  
Fax: +49 (0) 7621 662-144  
[info.de@conductix.com](mailto:info.de@conductix.com)  
[www.conductix.com](http://www.conductix.com)



Importer for the United Kingdom:  
**Conductix-Wampfler Ltd.**  
1, Michigan Avenue  
Salford  
M50 2GY  
United Kingdom

Phone: +44 161 8480161  
Fax: +44 161 8737017  
[info.uk@conductix.com](mailto:info.uk@conductix.com)  
[www.conductix.com](http://www.conductix.com)