

# Junction Box types PBS/PBM for Heating Cables EMK/EKL Operation and Installation Manual



Origin Operation and Installation Manual

Language: EN



## Table of Content

<b>1. About this Manual</b> .....	<b>4</b>	<b>6. Installation</b> .....	<b>15</b>
1.1. Product Safety .....	4	6.1. Required tools and equipment .....	15
1.2. How to use this Manual .....	4	6.2. Cautions and Warnings.....	15
1.3. Symbols and Warnings.....	4	6.3. Mounting Heating Cable type EMK - Core plus PE.....	16
1.4. Terms and Definitions.....	5	6.4. Mounting Heating Cable type EMK - Core plus Bonding Jumper.....	19
<b>2. Safety</b> .....	<b>6</b>	6.5. Mounting Heating Cable type EKL .....	21
2.1. Intended Use .....	6	<b>7. Operation</b> .....	<b>26</b>
2.2. Foreseeable Misuse .....	7	<b>8. Maintenance</b> .....	<b>27</b>
2.3. Personal Qualification.....	7	<b>9. Decommissioning</b> .....	<b>28</b>
<b>3. Technical Data</b> .....	<b>8</b>	<b>10. Recommissioning</b> .....	<b>29</b>
3.1. Junction Boxes Protection Type Ex e .....	8	<b>11. Disposal and Recycling</b> .....	<b>29</b>
3.2. Junction Boxes without Explosion Protection .....	10	<b>12. Limited Product Warranty</b> .....	<b>30</b>
<b>4. Device Description</b> .....	<b>12</b>	<b>13. Declaration of Conformity</b> .....	<b>31</b>
<b>5. Transport</b> .....	<b>14</b>		

# 1. About this Manual


## 1.1. Product Safety

The Junction Boxes types PBS/PBM allow to connect up to three heating circuits using heating cables types EMK or EKL to a Power Line. Depending on model using as daisy chain is possible.

The Junction Boxes are designed and approved for use in hazardous (potentially explosive) and industrial (non-explosive) atmospheres depending on model.

Junction Boxes are built according to the state of the art and are safe to use. To ensure safe operation, it is essential to plan the system accurately, transport it properly, install it professionally, and to commission and maintain it. The necessary personal protective equipment (PPE) must be worn when working on the product or on the system in which it is installed.

The Junction Boxes types PBS/PBM may only be operated and used in accordance with their intended use and in compliance with these operating instructions and the applicable national standards and approvals.

	<p><b>WARNING!</b></p> <p>Injuries due to misuse</p> <p>Improper use of the product can lead to an explosion, serious injury or death. The warnings and instructions must be read and understood.</p>
--	---

## 1.2. How to use this Manual

This Operation and Installation Manual is part of the Junction Boxes types PBS/PBM. It is intended to ensure a safe and efficient handling of the product. The manual must be kept for future reference and kept close to the product so that it is always available to all personnel involved.

Read these instructions carefully and completely before working with the product. The contents of the manual must be read and understood thoroughly before installing, using/setting into

operation or maintaining the product. This manual must be passed on to future owners or operators if necessary.


The safety notes, symbols and warnings and instructions in this manual, in the applicable documents and in the documents provided are a requirement for safe working and must be observed. The technical data and applicable standards must be observed.


The illustrations in this manual are for basic understanding and may differ from the actual design of the product.


## 1.3. Symbols and Warnings


The warnings shall be intended to protect against dangerous situations, personal injury and damage to property.


In the operating instructions, the severity of the possible dangers is indicated by the following signal words.

	<p><b>DANGER!</b></p> <p>DANGER indicates an imminent danger. If not avoided, death or serious injury will result.</p>
---	--

	<p><b>WARNING!</b></p> <p>WARNING indicates a potentially imminent danger. If not avoided, it can result in death or serious injury.</p>
---	--

	<p><b>CAUTION!</b></p> <p>CAUTION indicates a potentially imminent danger. If not avoided, minor injuries may result.</p>
---	---


	<p><b>NOTICE!</b></p> <p>NOTICE indicates a potentially harmful situation. If not avoided, the plant or something in its vicinity may be damaged.</p>
---	---


	<p><b>PLEASE NOTE!</b></p> <p>PLEASE NOTE indicates notes and information on an effective, economical and environmentally friendly handling.</p>
---	--

## **1.4. Terms and Definitions**

This Operation and Installation Manual describes the Junction Boxes types PBS/PBM for Heating Cables EMK/EKL. It may be referred in this manual as Junction Boxes types PBS/PBM. In this case, it refers to the Junction Boxes types PBS/PBM for Heating Cables EMK/EKL.

## 2. Safety

	<p><b>WARNING!</b></p> <p>Risk of fire or electrical shock due to Electric Trace Heating System.</p> <p>Follow these guidelines to avoid personal injury or material damage.</p>
--	--

	<p><b>WARNING!</b></p> <p>Explosion hazard.</p> <p>Do not disconnect electric lines while the circuit is live or unless the area is free of ignitable concentrations.</p>
--	---

For safe installation of the Junction Boxes types PBS/PBM for Heating Cables EMK/EKL the technical requirements and instructions given in this manual must be followed. Keep this manual for future reference. If applicable, leave it with the end user.

All electrical systems and installations must comply with BARTEC GmbH requirements and be installed in accordance with the relevant electrical codes and any other applicable national and local codes.

Use the Junction Boxes types PBS/PBM in accordance with the intended use and strictly comply with the operational data specified in section Technical Data.

Install all components of the Junction Boxes carefully, pay special attention to the correct connection at the terminals.

Check Junction Boxes and components if they are in good condition. Visually inspect all components upon unpacking and replace each defect component.

Any defective component of the kit must be replaced before installation. Replace each defect component of the electric trace heating system.

Use only original BARTEC accessories and spare parts.

Note that the Applicable Documents listed below shows further important information and must be

observed in addition to this manual. Note the actual version of the documents.

### Applicable Documents

Operational Instructions	03-0330-1248
Junction and Terminal Boxes	
Installation Instructions EKL medium/premium	21-5820-7D0001
Installation Instructions EKL light	21-5820-7D0003
Installation Instructions EMK	21-3621-7D0001
Storage conditions	21-0000-7Q0001

### 2.1. Intended Use

Junction Boxes types PBS/PBM are Junction Boxes for connecting up to three heating circuits using heating cables types EMK or EKL to a Power Line. Junction Box type PBS-40C-E for connecting two Power Lines so Daisy Chain-function can be realized.

Junction Boxes black colored are certified as Ex e and grey colored without explosion-protection produced.

The Junction Boxes types PBS/PBM may only be installed in systems or devices that have been designed by trained and qualified personnel with specific expertise and experience in explosion protection.

Install the Junction Boxes types PBS/PBM only with suitable mounting accessories e.g. mounting stands and the prepared and delivered cable glands. For mounting accessories see chapter Device Description/Accessories.

The approval and marking of the respective Junction Boxes, the technical data and the applicable documents must be observed.

For use with electrical systems, the relevant installation and operating conditions (e.g. according to IEC 60079-0, IEC 60079-14, IEC 60079-17, IEC 60079-30-2 and any other relevant national and international standards) must be observed.

## 2.2. Foreseeable Misuse

The following activities are a misuse of the product and are **not allowed**:

- Use of the Junction Boxes types PBS/PBM for purposes other than those described in the intended use
- Installation, Operation, Maintenance or Disposal by unauthorized or unqualified personnel
- Work on live parts or circuits without switching off the Junction Boxes types PBS/PBM or the system
- Commissioning of damaged or faulty system components or incomplete installation
- Unauthorized technical modification of the Junction Boxes types PBS/PBM or its components

## 2.3. Personal Qualification

For System Planning, Installation, Operation and Maintenance observe the requirements for personnel qualification according to IEC 60079-14, note appendix A.

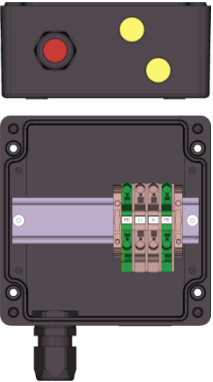
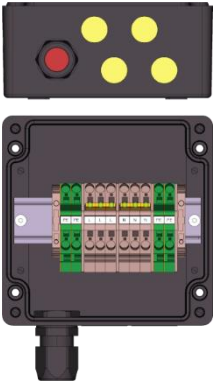
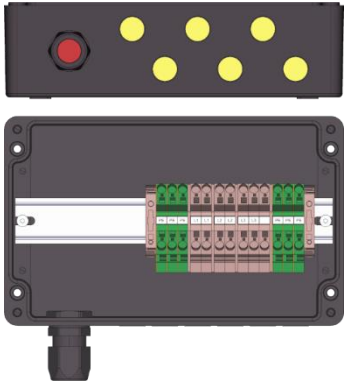
## 3. Technical Data

### 3.1. Junction Boxes Protection Type Ex e

Properties for all types:

Properties	Description
Explosion Protection Type	Ex e
Color Junction Box	black (RAL 9005)
Protection class (EN 60529)	IP 66/67
Surface Resistance	< 10 <sup>9</sup> Ω
Voltage	max. 550 Vac
Current	max. 38 A
Dimensions Terminals	0.5 mm <sup>2</sup> to 6 mm <sup>2</sup>
Size of cable gland for Power line	M25 (Ø 8 to 14 mm)
Size of threads for cable glands for heating circuits	M20

Properties depending on types:

	PBS-400-E	PBM-40S-E	PBM-40D-E
Visual appearance			
Ambient Temperature	-55 °C to +55 °C (T5) -55 °C to +40 °C (T6)	-55 °C to +55 °C (T5) -55 °C to +40 °C (T6)	-55 °C to +55 °C (T5) -55 °C to +40 °C (T6)
No. of Line Terminals	2	6	7
No. of Earth Terminals	2	4	6
No. of cable glands for power line	1	1	1
No. of threads for cable glands for heating circuits	2	4	6
Terminal Labels	L; N	L1; L2; L3 3 x N	2 x L1; 2 x L2; 2 x L3; 1 x without Label
Size/Dimensions	160 x 160 x 90 mm		260 x 160 x 90 mm

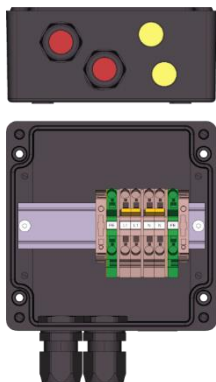
Order Numbers:

	PBS-400-E	PBM-40S-E	PBM-40D-E
Order No.	07-3T03-1609/F056	07-3T03-1609/F026	07-3T03-2609/F022

## Junction Boxes types PBS/PBM for Heating Cables EMK/EKL

PBS-40C-E

Visual appearance



Ambient Temperature	-55 °C to +55 °C (T5) -55 °C to +40 °C (T6)
No. of Line Terminals	4
No. of Earth Terminals	2
No. of cable glands for power line	2
No. of threads for cable glands for heating circuits	2
Terminal Labels	2 x L; 2 x N
Size/Dimensions	160 x 160 x 90 mm

Order Number:

PBS-40C-E

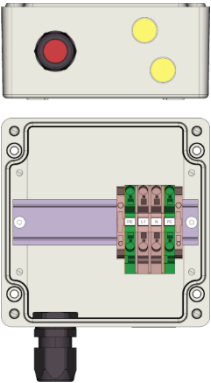
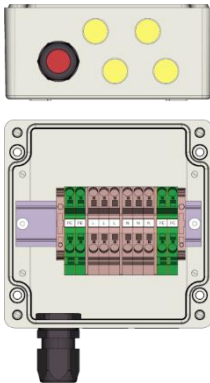
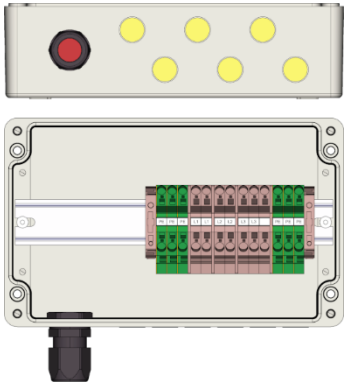
Order No. 07-3T03-1609/F068

## 3.2. Junction Boxes without Explosion Protection

Properties for all types:

Properties	Description
Explosion Protection Type	None
Color Junction Box	grey (RAL 7000)
Protection class (EN 60529)	IP 66/67
Surface Resistance	$> 10^{12} \Omega$
Voltage	max. 800 Vac
Current	max. 41 A
Dimensions Terminals	0.5 mm <sup>2</sup> to 10 mm <sup>2</sup> (nominal 6 mm <sup>2</sup> )
Size of cable gland for Power line	M25 (Ø 8 to 14 mm)
Size of threads for cable glands for heating circuits	M20

Properties depending on types:

	PBS-400-N	PBM-40S-N	PBM-40D-N
Visual appearance			
Ambient Temperature	-55 °C to +70 °C	-55 °C to +70 °C	-55 °C to +70 °C
No. of Line Terminals	2	6	7
No. of Earth Terminals	2	4	6
No. of threads for cable glands for heating circuits	2	4	6
Terminal Labels	L; N	L1; L2; L3 3 x N	2 x L1; 2 x L2; 2 x L3; 1 x without Label
Size/Dimensions	160 x 160 x 90 mm		260 x 160 x 90 mm

Order Numbers:

	PBS-400-N	PBM-40S-N	PBM-40D-N
Order No.	D7-3T77-1609/F001	D7-3T77-1609/F002	D7-3T77-2609/F001



## Certifications / Approvals / Marking



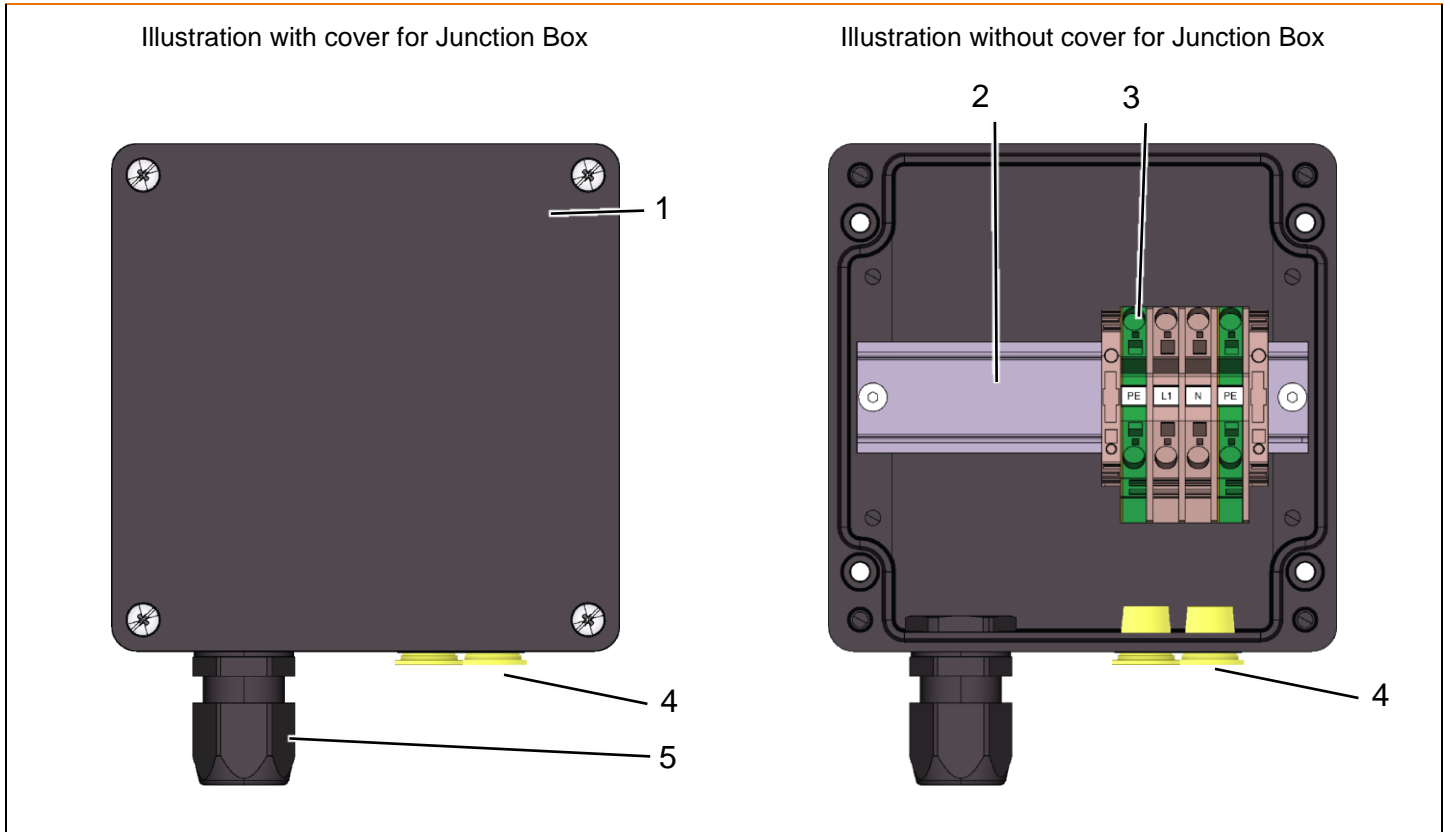
Junction Boxes types PBS/PBM  
for BARTEC Heating Cables EMK/EKL

For Ex e - Junction Boxes  
(PBS-400-E, PBS-40C-E, PBM-40S-E, PBM-40D-E):

<b>IECEx IBE 12.0031X</b>
Ex eb IIC T6, T5 Gb
Ex tb IIIC T80 °C T95 °C Db

<b>IBExU12ATEX1099 X</b>
 II 2G Ex eb IIC T6, T5 Gb
 II 2D Ex tb IIIC T80 °C T95 °C Db

## 4. Device Description



No.	Description
1	Cover for Junction Box
2	DIN rail TS35
3	Terminals
4	Threads for heating circuit cable glands; delivery with protection caps
5	Cable Gland for Power Line (1 or 2 pcs., depending on Junction Box type)

For Heating Cable type EMK:

The cable glands are firmly joined with the heating cable and made of brass.

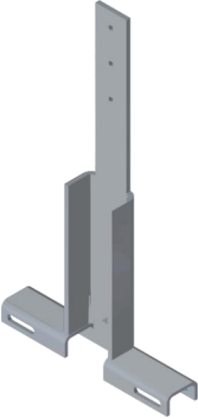

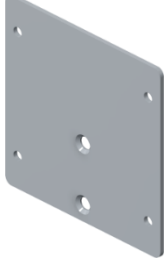
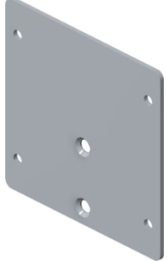
For Heating Cable type EKL:

The needed cable glands are delivered with the heating cable and single parts.

The Junction Boxes doesn't contain suitable cable glands for heating circuits or heating cables.

Illustration is for general understanding of the components of the Junction Box. Junction Box type PBS-400-E is shown as an example. Illustration is valid for all types of Junction Boxes mentioned in this Installation Instruction.

## Accessories

	<p><b>Stainless steel mounting stand (optional)</b> T-shape, 160 x 287 mm</p>	<p>Catalog No.: MB-SS200 Part No.: 05-0091-0051</p>
	<p><b>Mounting stand galvanized</b> L-shape</p>	<p>Catalog No.: MB-GL200 Part No.: 05-0105-0162</p>
	<p><b>Stainless steel base plate for mounting stands</b> For Junction Boxes types PBS-400-*, PBS-40C-*, PBM-40S-* (160 x 160 mm) PBM-40D-* (260 x 160 mm)</p>	<p><b>For PBS-40*, Size 160 x 160 mm</b> Catalog No.: MP-SS160 Part No.: 05-0091-0013 <b>For PBM-40*, Size 260 x 160 mm</b> Catalog No.: MP-SS260 Part No.: 05-0091-0014</p>
	<p><b>Galvanized base plate for mounting stands</b> For Junction Boxes types PBS-400-*, PBS-40C-*, PBM-40S-* (160 x 160 mm) PBM-40D-* (260 x 160 mm)</p>	<p><b>For PBS-40*, Size 160 x 160 mm</b> Catalog No.: MP-GL160 Part No.: 05-0005-0017 <b>For PBM-40*, Size 260 x 160 mm</b> Catalog No.: MP-GL260 Part No.: 05-0005-0018</p>

## 5. Transport

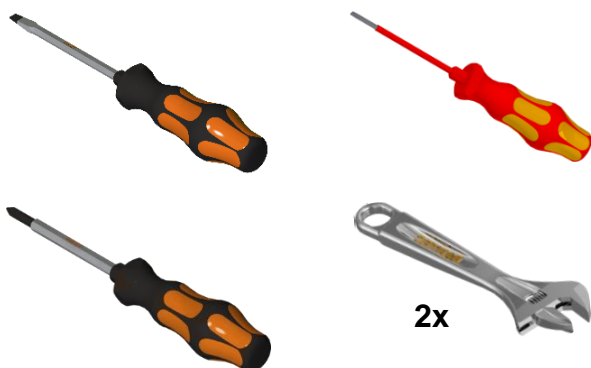
Protect the Junction Boxes types PBS/PBM from damage such as impact, moisture and dirt.  
Transport the Junction Boxes types PBS/PBM carefully.

## 6. Installation

### 6.1. Required tools and equipment

The following tools and equipment are required for installation of the Junction Boxes types PBS-40\* and PBM-40\*:

- Flat screwdriver 2.5 mm
- Cross-head screwdriver
- Electricians screwdriver
- Adjustable wrench (2x)



Following illustrations are for general understanding of the installation steps. Junction Box type PBS-400-E is shown as an example. Illustration is valid for all types of Junction Boxes mentioned in this Installation Instruction.

### 6.2. Cautions and Warnings



#### WARNING!

Risk of Fire or Electrical Shock due to Electric Trace Heating System.

De-energize all power circuits before installing or servicing. Always use ground fault equipment protection with the Trace Heating System.

Observe the documents listed in 'Applicable Documents'.

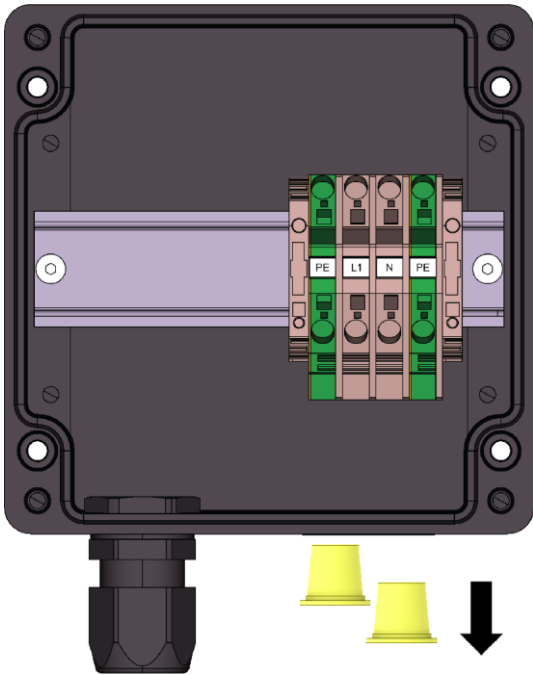


#### CAUTION!

Risk of injury and/or material damage. Never step on or drive over the Trace Heating cable or Power Line cable. Do not use it as a loop for stepping on.

- Double-check that all power circuits are de-energized before you begin your work.
- Observe Technical Data of the products you use or want to install.
- Observe the bending radius of each type of Trace Heating Cable you want to install.
- To avoid short circuits, do not connect the wires together.
- Keep all components and the cables you want to install dry before and during installation.
- Mount the Junction Box onto a suitable mounting stand or choose a wall mounting solution. For accessories see chapter 'Device Description'.
- Mount the Mounting Stand for the Junction Box preferably on top of the workpiece, e.g. the pipe. If a different orientation of the Mounting Stand is necessary, there is a risk of water collecting in the Junction Box. Ensure orientation of the Junction Box with cable glands on the bottom side of the Junction Box. Avoid water accumulation in the mounting stand!
- BARTEC recommends applying the third party pipe insulation immediately after installing the Junction Box and the Mounting Stand.

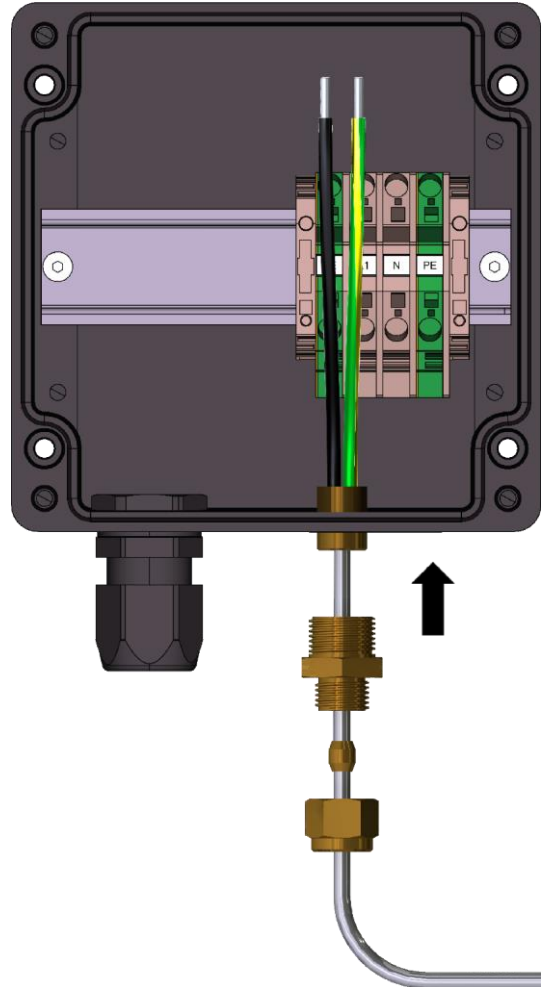
- Remove the cover of the Junction Box using a screwdriver.
- Remove the protection caps from the Junction Box.



3

### 6.3. Mounting Heating Cable type EMK - Core plus PE

- Feed the end of the heating cable EMK into the Junction Box.



4

The mounting steps depending on the delivered Heating cable type.

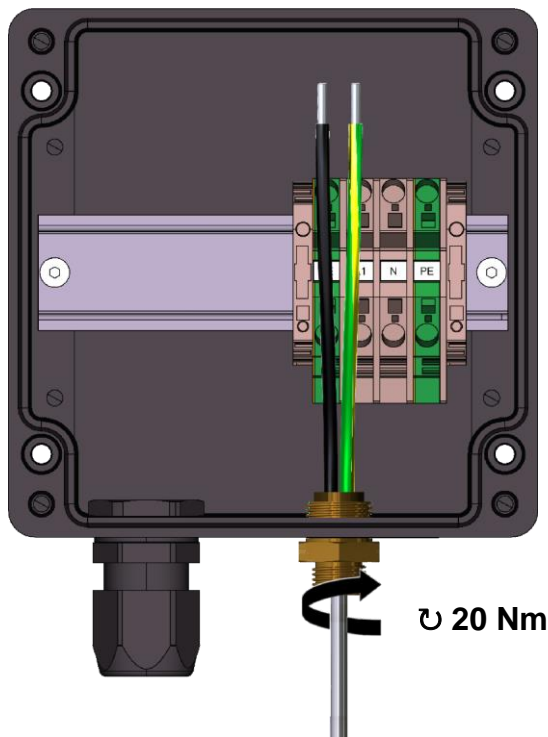
For mounting the Trace Heating cable type **EMK: Core plus PE** follow steps 4 to 12.

For Trace Heating cable type **EMK: Core plus bonding jumper** continue with step 13.

For Trace Heating cable type **EKL** continue with step 24.

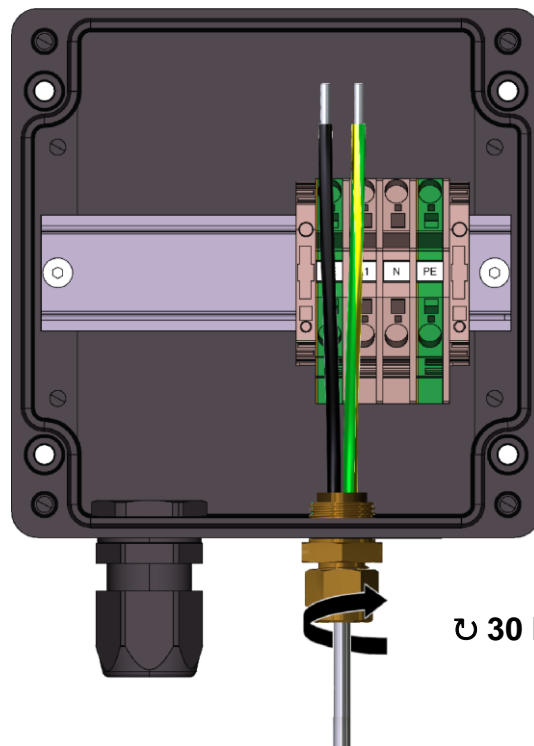
## Junction Boxes types PBS/PBM for Heating Cables EMK/EKL

- Tighten the gland body using an adjustable wrench. Observe the tightening torque of 20 Nm.



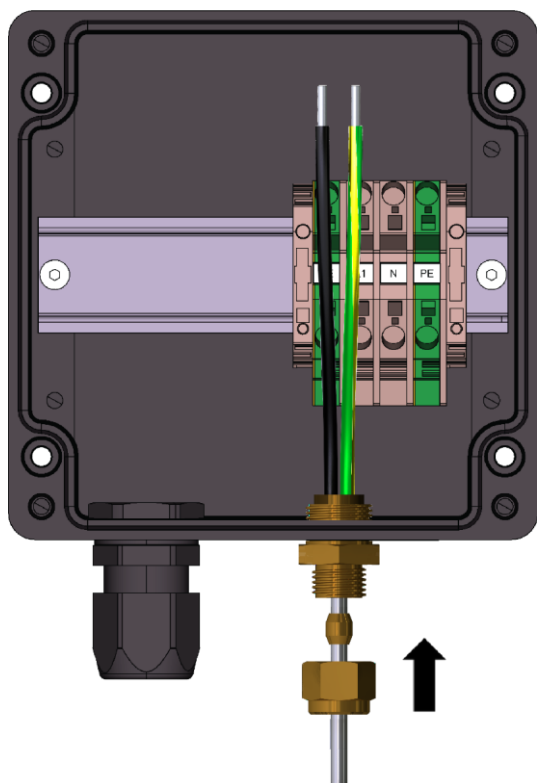
5

- Tighten the fixing nut while encountering the gland body. Using two adjustable wrenches. Observe the tightening torque of 30 Nm.



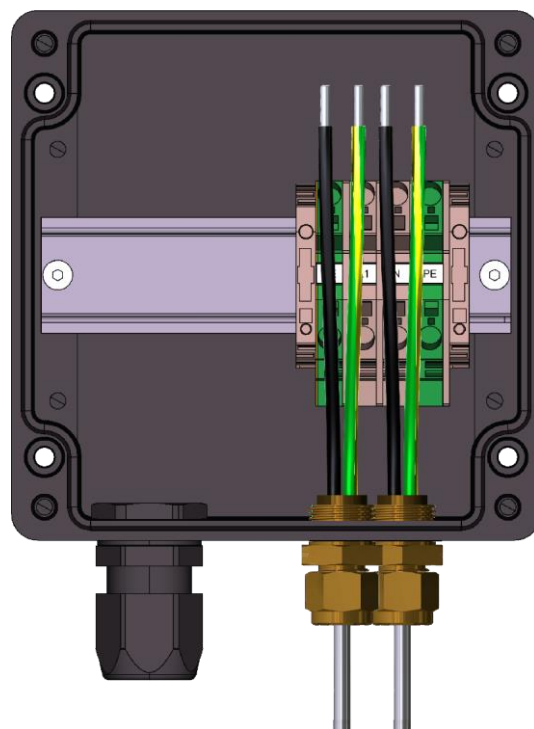
7

- Slide the fixing nut and the brass grommet onto the gland body. Check if brass grommet is in position.



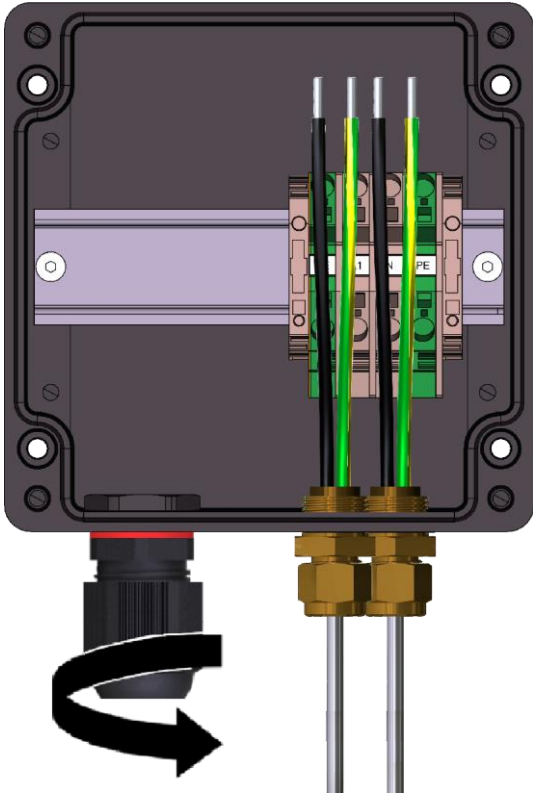
6

- Repeat steps 4 to 7 for the second end of the heating cable EMK and if applicable for the second and third heating circuit EMK.



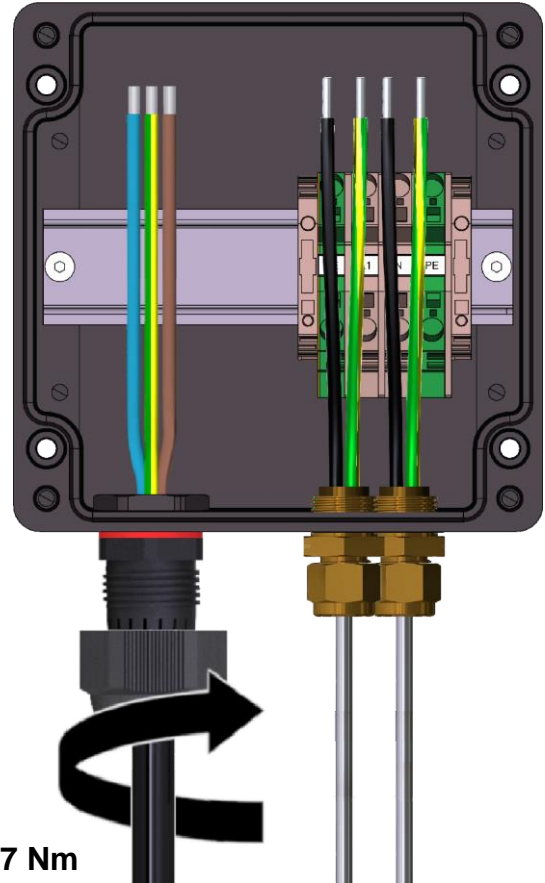
8

- Unscrew the fixing nut from the gland body for the Power Line cable. Using an adjustable wrench if needed.



9

- Feed the Power Line cable through the cable gland body and into the junction box.
- Tighten the fixing nut while encountering the gland body. Using two adjustable wrenches. Observe the tightening torque of 7 Nm.



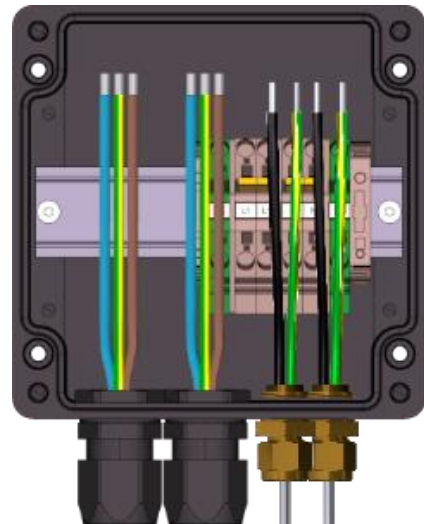
11

- Slide the fixing nut onto the Power Line cable.



10

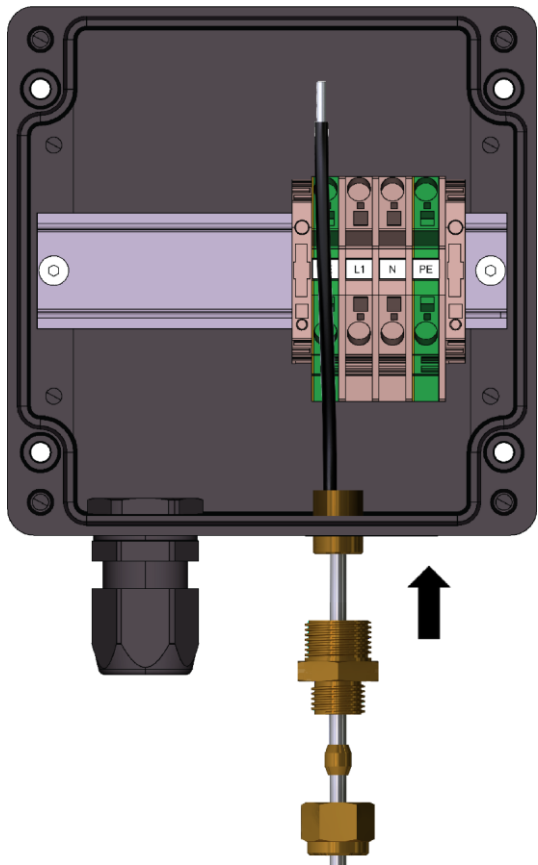
- For junction box PBS-40C-E repeat steps 9 to 11 for the second Power Line cable.



12

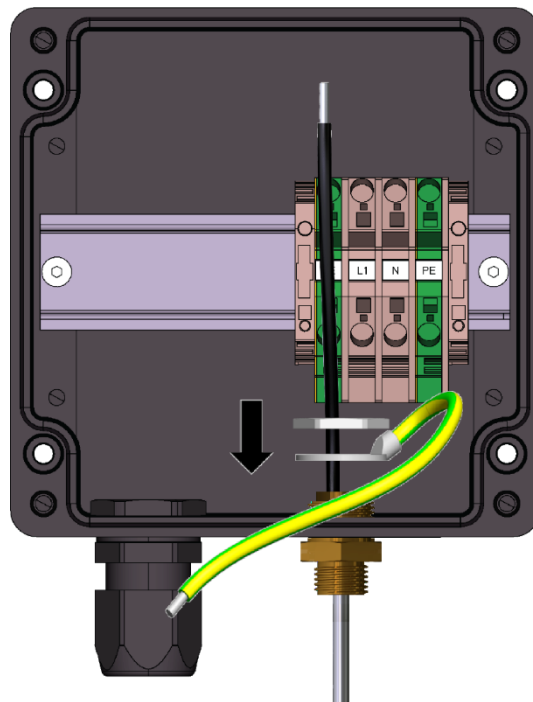
### 6.4. Mounting Heating Cable type EMK - Core plus Bonding Jumper

- Feed the end of the heating cable EMK into the Junction Box.



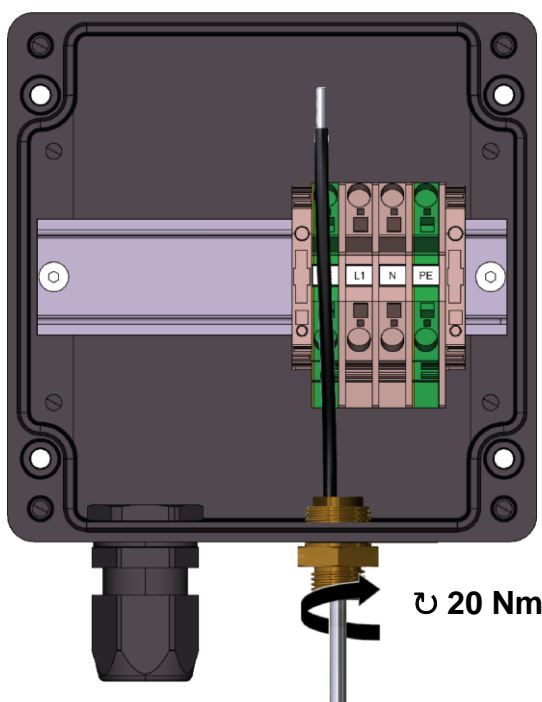
13

- Slide the bonding jumper and the lock nut onto the gland body.



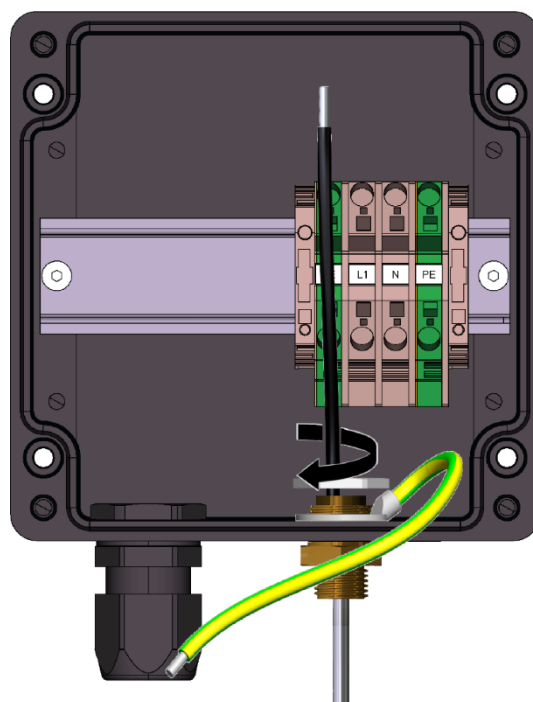
15

- Tighten the gland body using an adjustable wrench. Observe the tightening torque of 20 Nm.



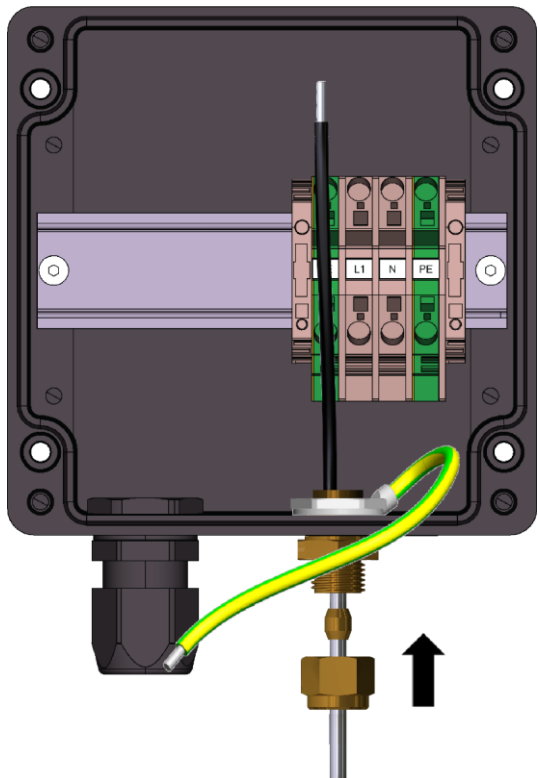
14

- Tighten the lock nut while locking the gland body using 2 adjustable wrenches.



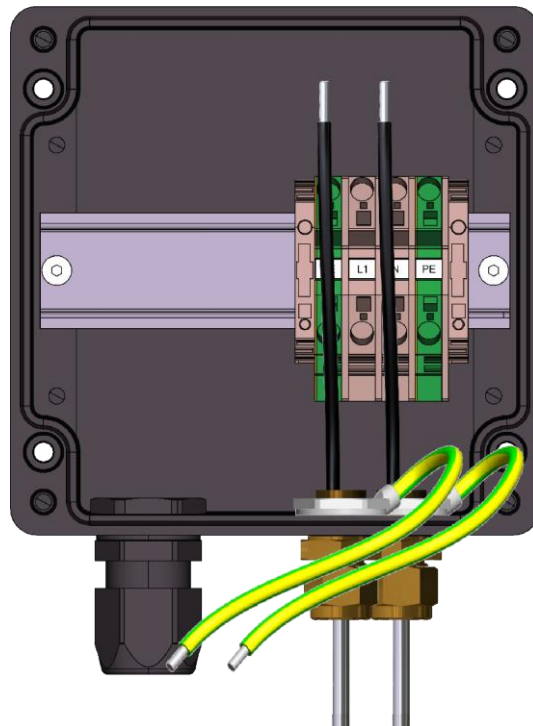
16

- Slide the fixing nut and the brass grommet onto the gland body. Check if brass grommet is in position.



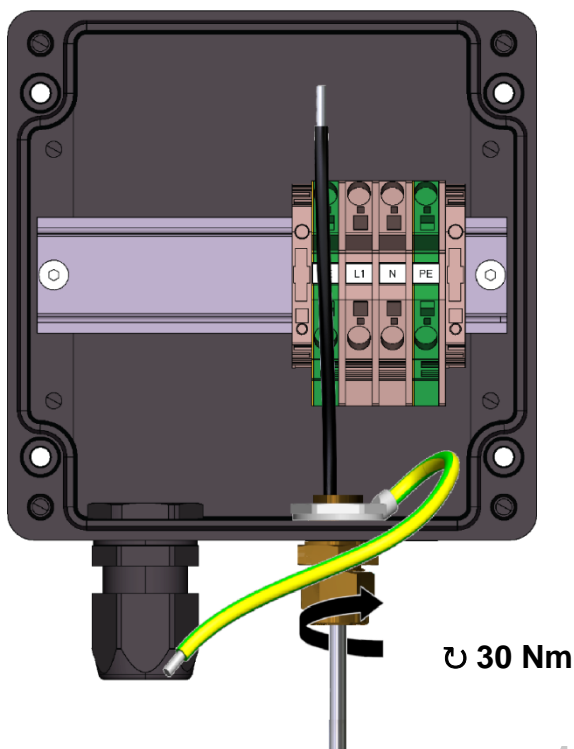
17

- Repeat steps 13 to 18 for the second end of the heating cable EMK and if applicable for the second and third heating circuit EMK.



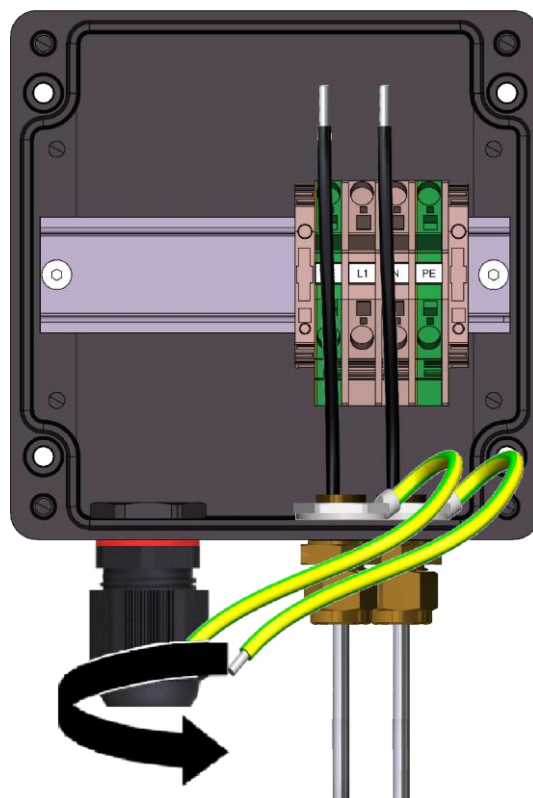
19

- Tighten the fixing nut while encountering the gland body. Using two adjustable wrenches. Observe the tightening torque of 30 Nm.



18

- Unscrew the fixing nut from the gland body for the Power Line cable. Using an adjustable wrench if needed.



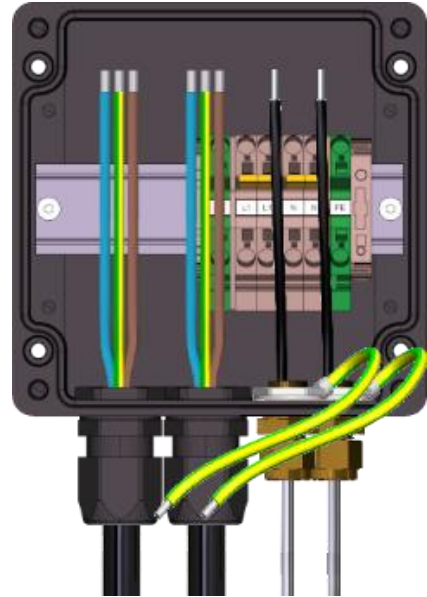
20

- Slide the fixing nut onto the Power Line cable.



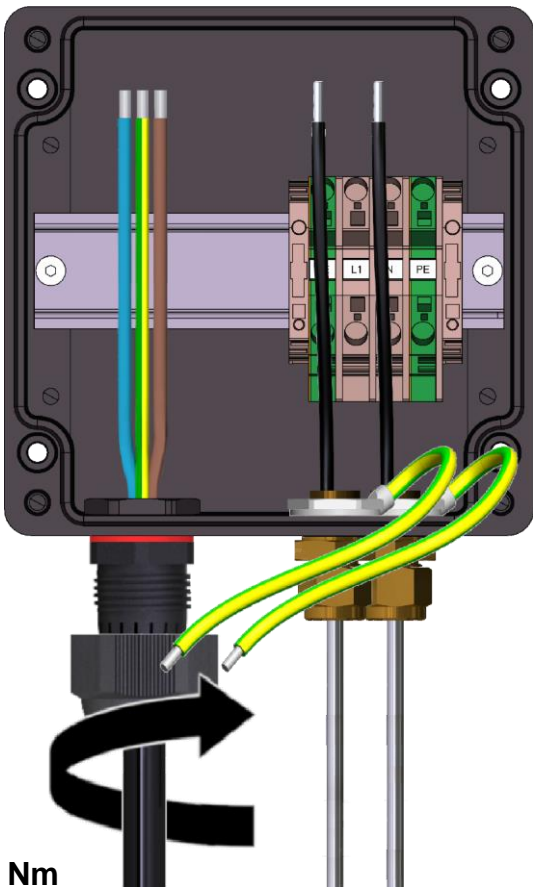
21

- For Junction Box PBS-40C-E repeat steps 20 to 22 for the second Power Line cable.



23

- Feed the Power Line cable through the cable gland body and into the junction box.
- Tighten the fixing nut while encountering the gland body. Using two adjustable wrenches. Observe the tightening torque of 7 Nm.



22

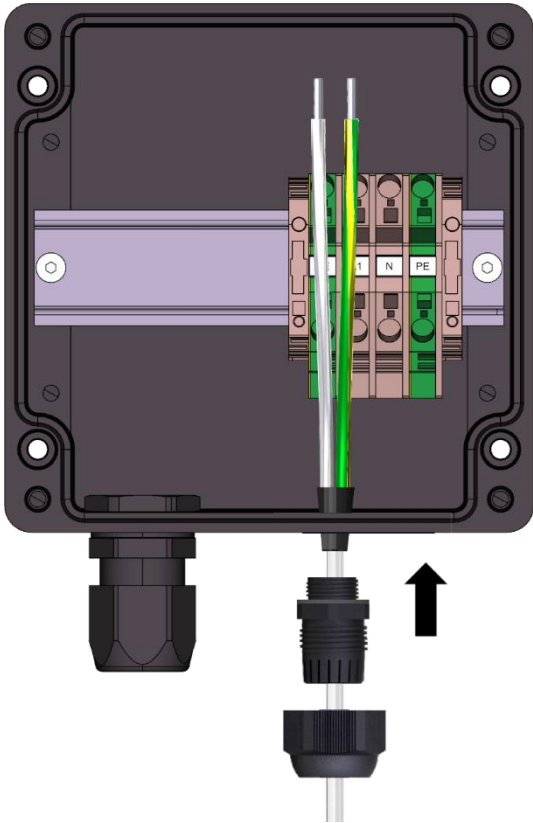
## 6.5. Mounting Heating Cable type EKL

- Slide the fixing nut and the cable gland body onto the Heating Cable EKL.

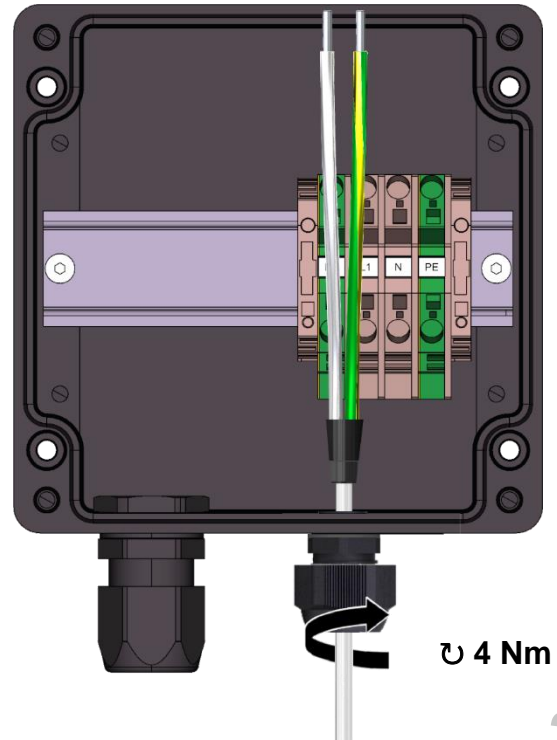


24

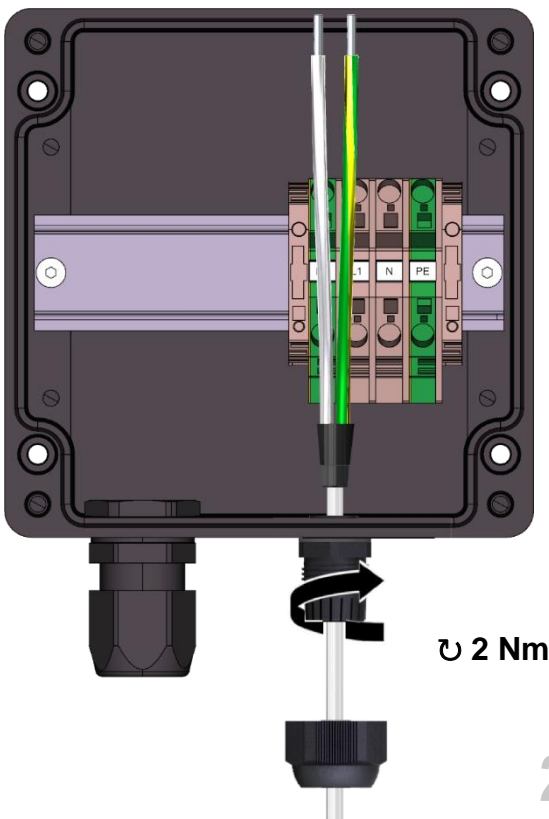
- Feed the end of the Heating Cable EKL into the Junction Box.



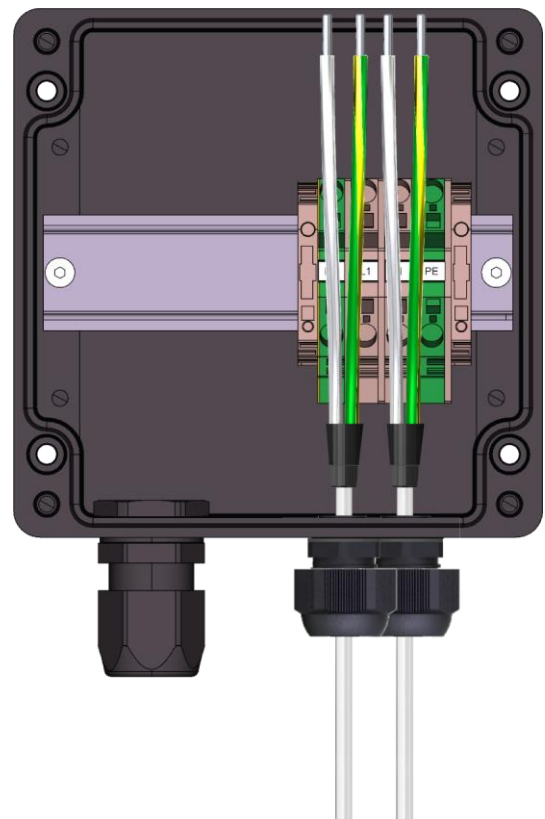
- Tighten the fixing nut while encountering the gland body. Using two adjustable wrenches. Observe the tightening torque of 4 Nm.



- Tighten the gland body using an adjustable wrench. Observe the tightening torque of 2 Nm.

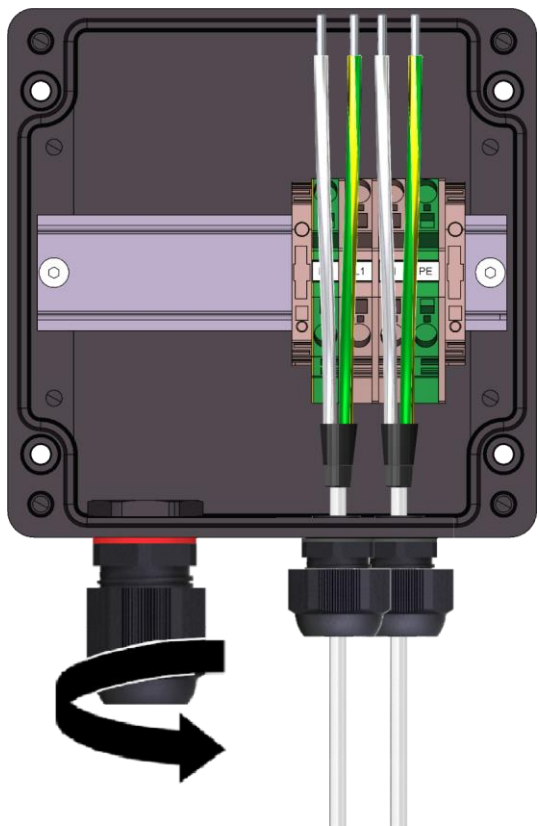


- Repeat steps 24 to 27 for the second end of the heating cable EKL and if applicable for the second and third heating circuit EKL.



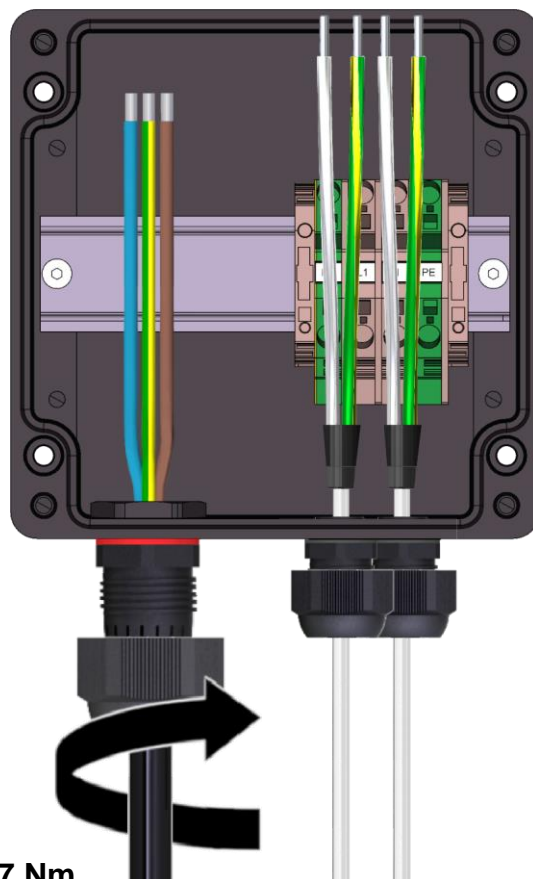
## Junction Boxes types PBS/PBM for Heating Cables EMK/EKL

- Unscrew the fixing nut from the gland body for the Power Line cable. Using an adjustable wrench if needed.



29

- Feed the Power Line cable through the cable gland body and into the Junction Box.
- Tighten the fixing nut while encountering the gland body. Using two adjustable wrenches. Observe the tightening torque of 7 Nm.



7 Nm

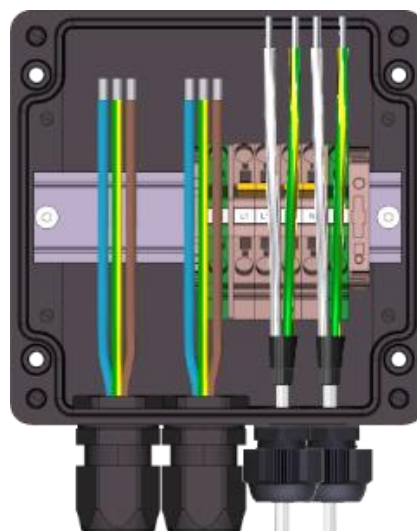
31

- Slide the fixing nut onto the Power Line cable.



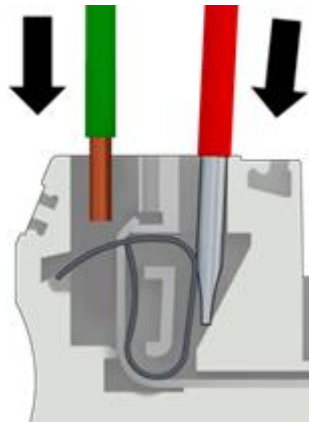
30

- For Junction Box PBS-40C-E repeat steps 29 to 31 for the second Power Line cable.



32

- **First:** Make electrical connection of the heating cable EMK/EKL at the terminals.
- **Second:** Make electrical connection of the Power Line cable at the terminals.
- For wire connection at the spring clamp terminals, insert a small screwdriver into the screwdriver slot, then insert the wire.
- Connect all wires as shown in the wiring diagrams below suitable to your needed installation. (pictures 33A to G).



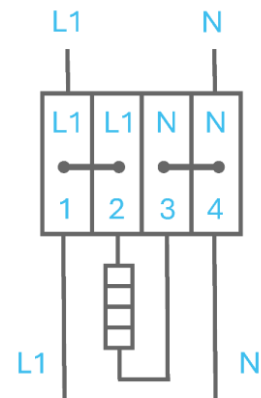
33

- Wiring diagram for PBS-400-\*



33A

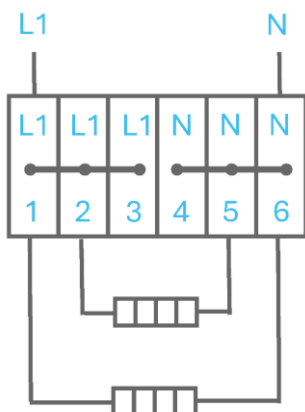
- Wiring diagram for PBS-400C-\*



33B

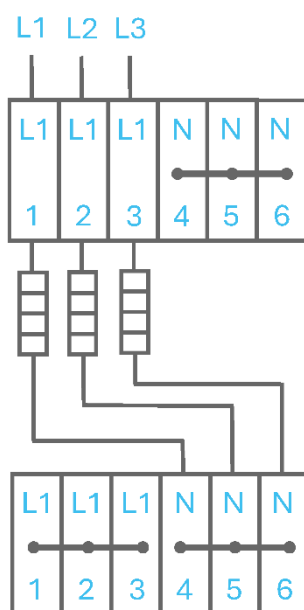
Wiring diagram for PBM-40S-\*

Double Junction Box



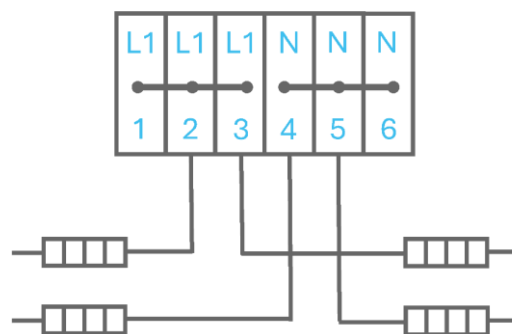
33C

Star Connection



33D

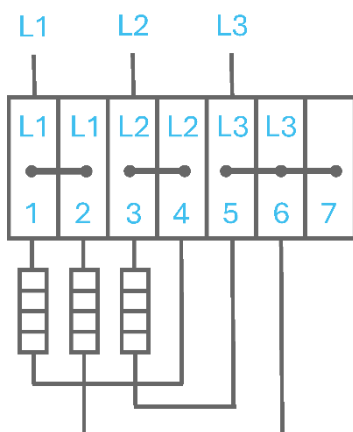
Intermediate Junction Box



33E

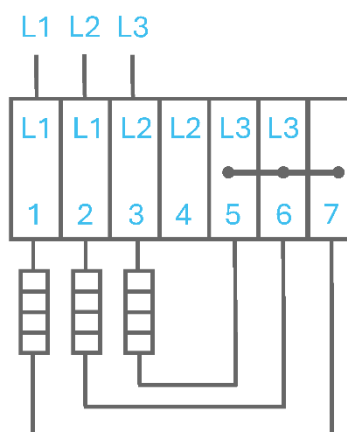
Wiring diagram for PBM-40D-\*

Delta Connection



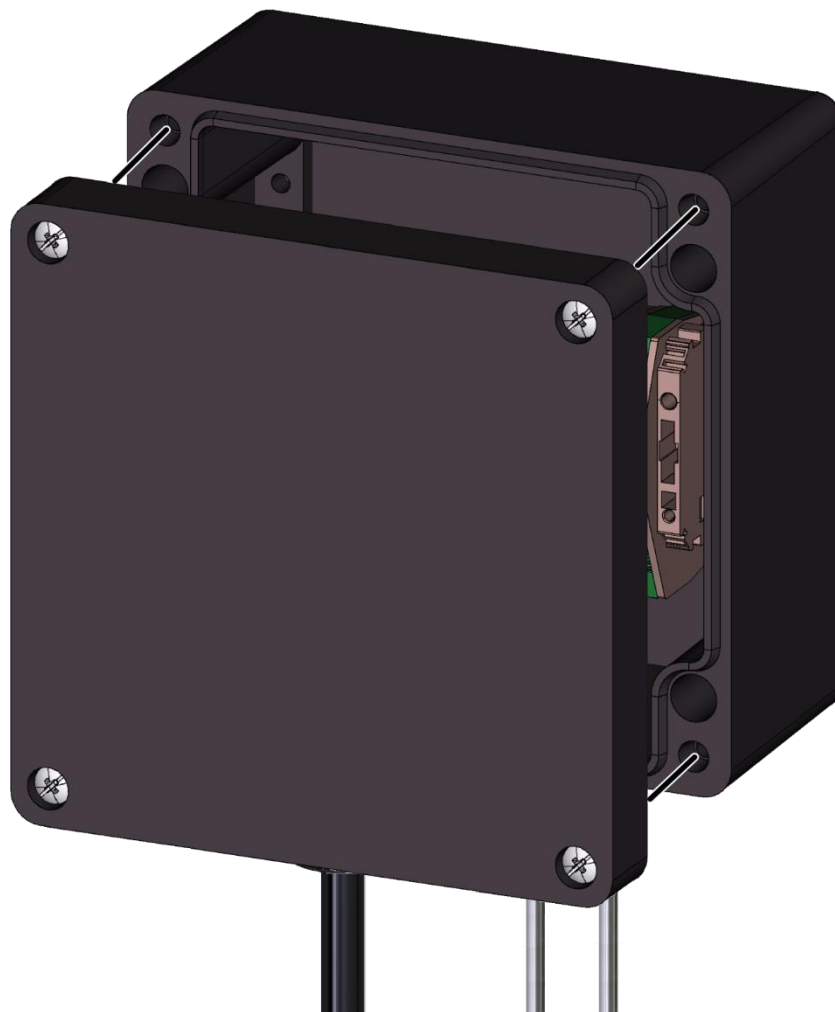
33F

Star Connection



33G

- Mount the cover of the Junction Box and tighten the 4 fixing screws using a cross-head screwdriver.



34

## 7. Operation

To set the Junction Boxes types PBS/PBM in operation status ensure the resistance measurement is passed and documented. You find the description for the resistance measurement test in the installation instructions of the heating cable type you installed.

During the operation of the product or system, be ensure that all components of the system are operated within their Technical Data specified by BARTEC. This applies in particular to the observance of maximum ambient temperatures. Operation within these technical data ensures safe operation and is a precondition for any subsequent warranty claims.

## 8. Maintenance



### **WARNING!**

Risk of fire and electric shock due to Electrical Trace Heating System.

Risk of injury due to electric current.

When starting installation and maintenance work, disconnect all circuits from the power supply and check that they are voltage-free!

The Junction Boxes types PBS/PBM for Heating Cables EMK/EKL are maintenance-free. However, the following inspection and maintenance activities are required for repair work after malfunctions or defects or conversions:

Check the thermal insulation for possible damage, missing seals, cracks, damage to the Power Line and Heating Cable, infiltrated water or chemicals.

Worn or damaged parts must be replaced (e.g. seals, locking plates, etc.).

Ensure installation in such a way that system or parts cannot be mechanically damaged.

Wipe off any dirt with a damp cloth, do not use cleaning agents or solvents. Do not damage cable connections. Absorb any existing moisture. In case of moisture find the cause of moisture penetration and remove it.

Check mechanical and electrical condition: Check cables and cable connections for faultlessness and good condition (signs of loose cables, loosened insulation). Eliminate faulty condition.

Check the Junction Box for corrosion damage and mechanical damage. Make sure that all housing covers are mounted and correctly closed. The Junction Box contains no parts that can or must be repaired or replaced. In case of damage or malfunction, the Junction Box must be replaced.

The maintenance carried out must be documented in a maintenance log. The date of the maintenance point and the maintenance activity must be described.

## 9. Decommissioning



### **WARNING!**

Risk of Fire and Electric Shock due to Electrical Trace Heating System

Risk of injury due to electric current

When starting installation and maintenance work, disconnect all circuits from the power supply and check that they are voltage-free!

The steps necessary to decommission the system vary depending on the customer's situation and the desired duration of the decommissioning. The Junction Box and its components must be checked for good condition and kept in accordance with the storage conditions. It can be electrically and mechanically uninstalled or left in the assembled state. In the event of damage or malfunction, the Junction Boxes types PBS/PBM must be replaced. To do this, it must be switched off, the connecting cables disconnected and dismantled. It must not be operated any further or be intended for operation and must be disposed of.

### **Procedure for decommissioning:**

1. Disconnect all components from the Junction Box
2. Wipe off any dirt with a damp cloth, do not use any cleaning agents or solvents, do not damage cable connections; if necessary absorb any moisture, find the cause of moisture penetration and remove it
3. Check mechanical and electrical condition; check cables and cable connections for faultlessness and good condition. Check e.g. for loose cables, loose insulation.
4. If necessary, uninstall electrically and mechanically and store components according to the storage conditions.

## 10. Recommissioning



### WARNING!

Risk of Fire and Electric Shock due to Electrical Trace Heating System

Risk of injury due to electric current

When starting installation and maintenance work, disconnect all circuits from the power supply and check that they are voltage-free!

The steps required to put the unit back into operation depend on the state of disassembly after decommissioning. Ensure a safe and good operational condition.

Before the Junction Boxes types PBS/PBM are recommissioned after decommissioning, the entire Operation and Installation Manual must be observed, especially the safety rules. The instructions in chapters Installation and Maintenance must be observed.

## 11. Disposal and Recycling

The Junction Boxes types PBS/PBM must be disposed in accordance with the legal regulations. It consists mainly of glass fiber reinforced plastic, metal and electrical components. The Junction Boxes types PBS/PBM must be dismantled into its components and fed back into the recycling system according to its components.



### PLEASE NOTE!



The device must be disposed of properly in accordance with the local laws and regulations for electrical and electronic equipment.

The device must not be disposed of with household waste.

## 12. Limited Product Warranty

### Scope

BARTEC warrants that all BARTEC products and accessories that are the subject of this manual will be free from defects in materials and workmanship from and after its date of purchase for a period of 12 (twelve) months.

For the avoidance of doubt, this limited product warranty will **not** cover any damage caused by:

- accidents,
- misuse, improper installation, operation, maintenance or repairs,
- neglect, or
- alteration.

Furthermore, BARTEC cannot be held liable under this warranty for:

- installation or removal costs,
- loss or damage to property,
- indirect, special, incidental or consequential damages (including, without limitation, loss of revenue or anticipated profits), or
- any other damages or costs directly or indirectly related to the warranty issue.

If all warranty conditions are met (as set forth below), BARTEC will, at its sole discretion:

- repair the product,
- replace the product, or
- refund the purchase price paid for the product.

This warranty gives you specific legal rights, and you may also have other rights which vary by country, state or province. Except as specifically provided otherwise in this limited product warranty, the BARTEC Group General Terms and Conditions shall apply.

### General terms and conditions

BARTEC Global Terms and conditions are available at: <https://bartec.com/general-terms-and-conditions-for-deliveries-and-services>

### Conditions

The limited product warranty is subject to the following conditions:

- proper installation, operation and maintenance in compliance with the state of the technology and the product documentation, and
- presence of completely filled in acceptance reports for all installation, maintenance and repairwork operations.

### How to claim the warranty

To file a claim under the limited product warranty:

- Notify BARTEC or your local BARTEC representative by written correspondence or email within 30 days after identification of a possible warranty issue.
- If requested, you must provide any warranty-related information and documentation to BARTEC, including, without limitation:
  - project planning documents, and
  - acceptance reports for installation, operation, maintenance or repairwork.

### Contact

Bartec GmbH, Max-Eyth-Strasse 16, 97980 Bad Mergentheim

Phone: +49 7931 597-0

Fax: +49 7931 591-499



info@bartec.com

## 13. Declaration of Conformity

Declaration of Conformity is valid for Junction Boxes types PBS/PBM with Ex e protection (types PBS-400-E, PBS-40C-E, PBM-40S-E, PBM-40D-E).

EU Konformitätserklärung EU Declaration of Conformity Déclaration UE de conformité N° 01-3T00-7C0001			
Wir	We	Nous	
<b>BARTEC GmbH</b> Max-Eyth-Straße 16 97980 Bad Mergentheim Germany			
erklären in alleiniger Verantwortung, dass das Produkt	declare under our sole responsibility that the product	attestons sous notre seule responsabilité que le produit	
<b>Anschlusskasten</b>	<b>Junction box</b>	<b>Boîte de jonction</b>	
<b>Typ 07-3T**_****/****</b>			
auf das sich diese Erklärung bezieht den Anforderungen der folgenden Richtlinien (RL) entspricht	to which this declaration relates is in accordance with the provision of the following directives (D)	se référant à cette attestation correspond aux dispositions des directives (D) suivantes	
<b>ATEX-Richtlinie 2014/34/EU</b> <b>RoHS-Richtlinie 2011/65/EU</b> <b>WEEE-Richtlinie 2012/19/EU</b>	<b>ATEX-Directive 2014/34/EU</b> <b>RoHS-Directive 2011/65/EU</b> <b>WEEE-Directive 2012/19/EU</b>	<b>Directive ATEX 2014/34/UE</b> <b>Directive RoHS 2011/65/UE</b> <b>Directive WEEE 2012/19/UE</b>	
und mit folgenden Normen oder normativen Dokumenten übereinstimmt	and is in conformity with the following standards or other normative documents	et est conforme aux normes ou documents normatifs ci-dessous	
<b>EN IEC 60079-0:2018</b> <b>EN 60079-7:2015/A1:2018</b> <b>EN 60079-11:2012</b> <b>EN 60079-31:2014</b>	<b>EN 60529:1991/A2:2013/AC:2019</b> <b>EN 60204-1:2019</b> <b>EN 50419:2022</b> <b>EN IEC 63000:2018</b>		
Eine Übereinstimmung mit den aufgeführten Normen ist variabel und abhängig von den eingebauten Komponenten. Produkt-spezifische Normen der Einbauelemente können der jeweiligen Konformitätserklärung entnommen werden.	A conformity with the listed standards is variable and depends on the installed components. Product-specific standards of the built-in components can be found in the respective declaration of conformity.	La conformité aux normes citées est variable et dépend des composants installés. Les normes spécifiques aux produits des composants encastrés peuvent être consultées dans la déclaration de conformité correspondante.	
Verfahren der EU-Baumusterprüfung / Benannte Stelle	Procedure of EU-Type Examination / Notified Body	Procédure d'examen UE de type / Organisme Notifié	
<b>IBExU12ATEX1099 X – Issue 2</b> <b>0637, IBExU, Fuchsmühlenweg 7, 09599 Freiberg, DE</b>			
 Bad Mergentheim, 05.02.2024			
i.A.  i.A. Simon Dylringer Product Manager Ex e	 i.A. Steffen Mika Team Leader Certification Management R&D ESS		

Declaration of Conformity is valid for Junction Boxes types PBS/PBM without explosion protection (types PBS-400-N, PBM-40S-N, PBM-40D-N).

EU Konformitätserklärung EU Declaration of Conformity Déclaration UE de conformité N° D1-3T00-7C0001			
Wir	We	Nous	
<b>BARTEC GmbH</b> Max-Eyth-Straße 16 97980 Bad Mergentheim Germany			
erklären in alleiniger Verantwortung, dass das Produkt <b>Anschlusskasten</b>	declare under our sole responsibility that the product <b>Junction Box</b>	attestons sous notre seule responsabilité que le produit <b>Boîte de jonction</b>	
<b>Typ D7-3T** -****/****</b>			
auf das sich diese Erklärung bezieht den Anforderungen der folgen- den <b>Richtlinien (RL)</b> entspricht <b>NS-Richtlinie 2014/35/EU</b> <b>RoHS-Richtlinie 2011/65/EU</b> und mit folgenden Normen oder nor- mativen Dokumenten übereinstimmt	to which this declaration relates is in accordance with the provision of the following <b>directives (D)</b> <b>LV -Directive 2014/35/EU</b> <b>RoHS-Directive 2011/65/EU</b> and is in conformity with the following standards or other normative documents	se référant à cette attestation correspond aux dispositions des <b>direct-</b> <b>ives (D)</b> suivantes <b>Directive BT 2014/35/UE</b> <b>Directive RoHS 2011/65/UE</b> et est conforme aux normes ou docu- ments normatifs ci-dessous	
<b>EN 60947-7-1:2009</b> <b>EN 60529:1991/A2:2013/AC:2019</b> <b>EN IEC 63000:2018</b>			
<b>Verfahren der internen          Fertigungskontrolle</b>	<b>Procedure of internal          control of production</b>	<b>Procédure de contrôle          interne de fabrication</b>	
 Bad Mergentheim, 16.07.2025			
 i.V. Simon Dyhringer Product Manager Ex e	 i.V. Steffen Mika Manager Global Certification ESS		







**BARTEC GmbH**

Max-Eyth-Str. 16

97980 Bad Mergentheim

Deutschland

Tel.: +49 7931 597 0

[info@bartec.com](mailto:info@bartec.com)

**[bartec.com](http://bartec.com)**