

ELS-200-E | ELS-200-A



Installation Instructions

ELS-200 high profile end seal
with cold applied connection technology
for use with BARTEC PSB, MSB, HSB, HSB+ or HTSB trace
heaters

Origin Installation Instructions

Consignes d'installation

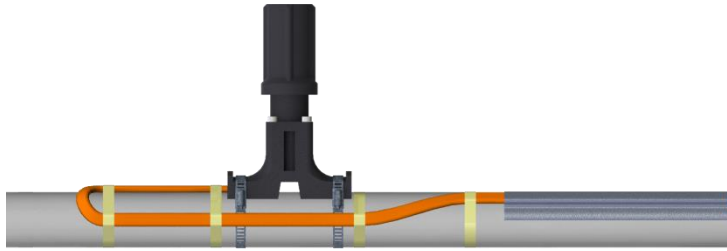
Kit pour la pose d'embouts d'étanchéité faciles d'accès ELS-200
à technologie de connexion froide
à utiliser avec les câbles chauffants de type BARTEC PSB, MSB,
HSB, HSB+, HTSB

Manuel d'installation original

Table of contents	
Overview	2
Certifications / Approvals / Marking	2
Technical data	3
Safety	4
Intended Use	4
Foreseeable Misuse	4
Personal Qualification	4
Kit contents	6
Accessories	7
Installation	9
Required tools / equipment	9
Cautions and warnings	9
Preparation of the trace heater	11
Installation of the end seal	12
Installation of the mounting stand and top cover	13
Application of the pipe insulation	15
Troubleshooting	16
Limited product warranty (North America)	17
Limited product warranty (Worldwide, excepting North America)	18
EC Declaration of conformity	19

Overview

This manual introduces the installation of the BARTEC ELS-200 high profile end seal.

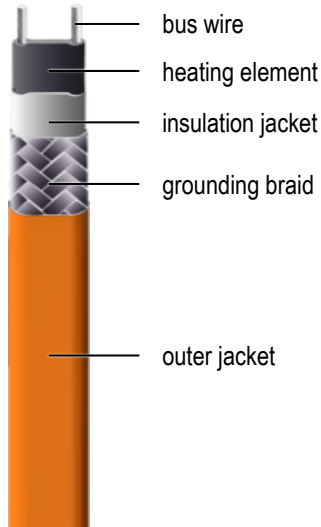


The trace heating system uses a self-regulating trace heater. It features a temperature-dependent resistive heating element that regulates and limits the heat according to the ambient temperature. If the ambient temperature rises, the power output of the trace heater is reduced. This self-regulating property prevents overheating which would cause damage to the trace heater. Crossing or overlapping with other parts of the same trace heating system is also possible.

The trace heaters are fixed equipment heating systems for pipes in ordinary and hazardous areas. Thanks to the parallel design the trace heater can be cut and installed to any required length (up to the maximum heating circuit length according to the design guide of the trace heating system).

The manual applies for enclosures made of polyester, aluminum and stainless steel material. Pictures in this manual shows polyester enclosures but are equivalent for all materials.

The following terms describe the parts of the trace heater within these instructions:



Certifications / Approvals / Marking

System certificate



ELS-200 high profile end seal
for BARTEC PSB, MSB trace heaters

IECEX DEK 20.0055X	
	Ex eb 60079-30-1 IIC T6...T3 ¹ Gb Ex tb 60079-30-1 IIIC T80 °C... T170 °C ¹ Db
DEKRA 20ATEX0093 X	
	II 2G Ex eb 60079-30-1 IIC T6...T3 ¹ Gb II 2D Ex tb 60079-30-1 IIIC T80 °C... T170 °C ¹ Db

Enclosure certificate



ELS-200 high profile end seal
for BARTEC PSB, MSB, HSB+ or HTSB trace heaters

IECEX DEK 21.0074X	
	Ex eb 60079-30-1 IIC T6...110 °C (T4) ¹ Gb Ex tb 60079-30-1 IIIC T _L 80 °C...T _L 110 °C ¹ Db
DEKRA 21ATEX0118 X	
	II 2G Ex eb 60079-30-1 IIC T6...110 °C (T4) ¹ Gb II 2D Ex tb 60079-30-1 IIIC T _L 80 °C...T _L 110 °C ¹ Db

System certificate CSA



ELS-200 high profile end seal
for BARTEC PSB, MSB, HSB trace heaters

CofC No. 1862457	
	Class I, Div. 2, Groups A, B, C, D Class II, Div. 2, Groups E, F, G Class III

¹ For maximum surface temperature, see heating system design documentation

Technical data

Top cover with mounting stand

Ambient temperature range	-55 °C to +55 °C
for IECEx	
for CSA	-40 °C to +55 °C (-40 °F to 131 °F)

Min. Installation Temperature

for IECEx	-55 °C
for CSA	-40 °C (-40 °F)

Max. workpiece temperature mounting stand	240 °C (464 °F)
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Power supply

for IECEx	max. 277 Vac
for CSA	max. 240 Vac (HSB)
	max. 277 Vac (PSB, MSB)

Trace heater output²

for IECEx	10 W/m to 90 W/m
for CSA	10 W/m to 60 W/m (3 W/ft to 20 W/ft)

Ingress Protection

for IECEx	IP 66 (EN 60529)
for CSA	Type 4X

Connection Technology (CAK)

Maximum withstand temperature / max. service temperature end seal³	+200 °C (392 °F)
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Min. installation temperature

for IECEx	-60 °C
for CSA	-40 °C (-40 °F)

² nominal heat output at 10 °C

³ observe the permissible temperature of the heating cable;
for heating cable HSB+ and HTSB: install the end seal for protection of excessive heat above the insulation but below the outer cladding, if needed.

Safety

⚠ WARNING

Risk of fire or electrical shock due to electric trace heating system. Follow these guidelines to avoid personal injury or material damage.

For safe installation and operation of the ELS-200 high profile end seal the technical requirements and instructions given in this manual must be followed. Keep these instructions for future reference. If applicable, leave them 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 ELS-200 high profile end seal in accordance with the intended use and strictly comply with the operational data specified in section Technical Data.

Install all components of the trace heating system carefully, especially the connection kit, trace heater and end seal.

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

This kit contains silicone adhesive. Keep out of reach of children. Store at below 25 °C (77 °F). Follow the safety instructions given on the packaging.

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.

Applicable Documents

DesignGuide System (for PSB and MSB)	21-1S00-7D0001
DesignGuide Enclosure (for HSB+ and HTSB)	21-5400-7D0001
DesignGuide CSA (for PSB, MSB, HSB)	01-5800-7N0010
Installation Instructions	
Self-regulating trace heating cables	01-5800-7D0003
Storage conditions	21-0000-7Q0001

NOTICE

The following instructions are provided in English only. Refer to www.bartec.us for the French version.

Intended Use

The ELS-200 high profile end seal is a connection kit including a top cover with mounting stand and connection technology (CAK).

It can be used in trace heating systems combined with BARTEC heating cable types

- BARTEC PSB (07-5853-*)
- BARTEC MSB (07-5854-*)
- BARTEC HSB (07-5803-*) (CSA only)
- BARTEC HSB+ (07-584B-*)
- BARTEC HTSB (07-584C-*)

- According to ATEX/IECEX-approval (System certificate) use PSB, MSB-heating cable for connection to ELS-200 high profile end seal
- According to ATEX/IECEX-approval (Enclosure certificate) use PSB, MSB, HSB+ or HTSB-heating cable for connection to ELS-200 high profile end seal
- According to CSA-approval use PSB, MSB or HSB-heating cable for connection to ELS-200 high profile end seal

The kit may only be operated with one heating cable and one kind of heating cable in each heating circuit. Operation is allowed with ground fault protection to be provided for all trace heating circuits only.

The approval and marking of the respective heating system, the technical data of the ELS-200 high profile end seal and the applicable documents must be observed.

For use with electrical systems, the relevant installation and operating conditions (e.g. according to ATEX Directive 2014/34/EU, EN 60079-0, EN 60079-14, EN 60079-17, EN 60079-30-2 and any other relevant national standards) must be observed.

Specific conditions of use

- Trace heater boxes, Cable entries PS-120-* type 27-59G2-*
For the Box pedestal PS-120-* measures shall be taken to avoid electrostatic charging hazards

Foreseeable Misuse

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

- Use of the ELS-200 high profile end seal for purposes other than those described in the intended use
- Installation, commissioning, operation, maintenance or disposal by unauthorised or unqualified personnel
- Work on live parts or circuits without switching off the ELS-200 high profile end seal or the system
- Commissioning of damaged or faulty system components or incomplete installation
- Unauthorized technical modification of the ELS-200 high profile end seal or its components

Personal Qualification

For system planning, installation, commissioning, operation and maintenance observe the requirements for personnel qualification according to DIN/EN 60079-14, note appendix A.

Sécurité

AVERTISSEMENT

Risque d'incendie ou d'électrocution dû au système de chauffage par traçage électrique. Respectez les consignes suivantes pour éviter les blessures ou les dommages matériels.

Pour une installation et un fonctionnement sûrs du Kit pour la pose d'embouts d'étanchéité en dehors de l'isolation thermique ELS-200, les exigences techniques et les instructions données dans ce manuel doivent être respectées. Conservez ces instructions pour toute référence ultérieure. Le cas échéant, laissez-les à l'utilisateur final.

Tous les systèmes et installations électriques doivent être conformes aux exigences de BARTEC GmbH et être installés conformément aux codes électriques pertinents et à tout autre code national et local applicable.

Utilisez le Kit pour la pose d'embouts d'étanchéité faciles d'accès ELS-200 conformément à l'usage prévu et respectez scrupuleusement les données opérationnelles spécifiées dans la section Données techniques.

Installez soigneusement tous les composants du système de traçage, en particulier le kit de raccordement, le traçage et le joint d'extrémité.

Tout composant défectueux du kit doit être remplacé avant l'installation. Remplacer chaque composant défectueux du système de traçage.

Ce kit contient de la colle silicone. Tenir hors de portée des enfants. Conserver à une température inférieure à 25 °C (77 °F). Respecter les consignes de sécurité figurant sur l'emballage.

N'utilisez que des accessoires et des pièces de rechange d'origine BARTEC.

Notez que les documents applicables énumérés ci-dessous contiennent d'autres informations importantes et doivent être respectés en plus de ce manuel.

Documents applicables

DesignGuide System (for PSB and MSB)	21-1S00-7D0001
DesignGuide Enclosure (for HSB+ and HTSB)	21-5400-7D0001
DesignGuide CSA (for PSB, MSB, HSB)	01-5800-7N0010
Installation Instructions Self-regulating trace heating cables	01-5800-7D0003
Storage conditions	21-0000-7Q0001

AVIS

Les instructions qui suivent sont fournies en anglais uniquement. Veuillez vous référer au site www.bartec.us pour la version française.

Usage prévu

Le Kit pour la pose d'embouts d'étanchéité en dehors de l'isolation thermique ELS-200 est un kit de connexion comprenant un couvercle supérieur avec support de montage et technologie de connexion (CAK).

Il peut être utilisé dans les systèmes de traçage combinés avec les types de câbles chauffants BARTEC

- BARTEC PSB (07-5853-*)
 - BARTEC MSB (07-5854-*)
 - BARTEC HSB (07-5803-*) (CSA only)
 - BARTEC HSB+ (07-584B-*)
 - BARTEC HTSB (07-584C-*)
- Selon l'agrément ATEX/IECEx (certificat de système), utiliser le câble chauffant PSB, MSB pour le raccordement au Kit pour la pose d'embouts d'étanchéité en dehors de l'isolation thermique ELS-200
 - Selon l'agrément ATEX/IECEx (certificat d'enceinte), utiliser les câbles chauffants PSB, MSB, HSB+ ou HTSB pour le raccordement au Kit pour la pose d'embouts d'étanchéité en dehors de l'isolation thermique ELS-200
 - Selon l'approbation CSA, utiliser le câble chauffant PSB, MSB ou HSB pour le raccordement au Kit pour la pose d'embouts d'étanchéité en dehors de l'isolation thermique ELS-200

Le kit ne peut être utilisé qu'avec un seul câble chauffant et un seul type de câble chauffant dans chaque circuit de chauffage. Le fonctionnement est autorisé avec une protection contre les défauts à la terre pour tous les circuits de chauffage de traçage uniquement.

L'homologation et le marquage du système de chauffage concerné, les données techniques du Kit pour la pose d'embouts d'étanchéité faciles d'accès ELS-200 et les documents applicables doivent être respectés.

En cas d'utilisation avec des systèmes électriques, les conditions d'installation et de fonctionnement pertinentes (par exemple, conformément à la directive ATEX 2014/34/UE, EN 60079 0, EN 60079-14, EN 60079-17, EN 60079-30-2 et toute autre norme nationale pertinente) doivent être respectées.

Conditions spécifiques d'utilisation

- Boîtes chauffantes Trace, entrées de câbles PS-120-* type 27-59G2-*
Pour le socle de la boîte PS-120-*, des mesures doivent être prises pour éviter les risques de charge électrostatique.

Mauvais usage prévisible

Les activités suivantes constituent une mauvaise utilisation du produit et ne sont pas autorisées:

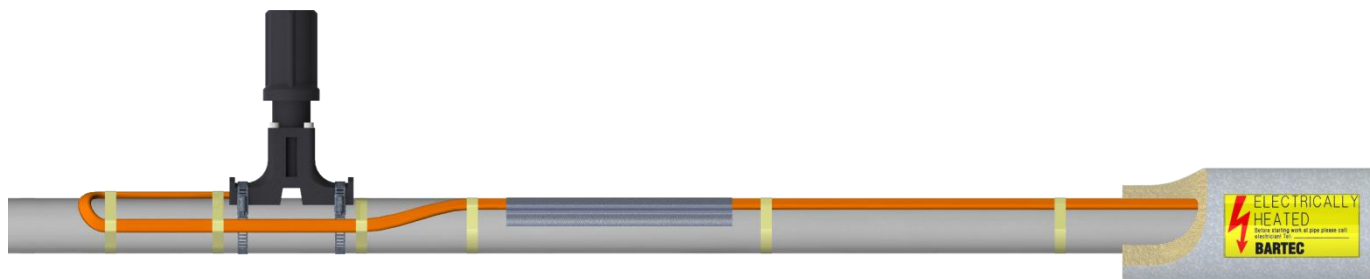
- Utilisation du Kit pour la pose d'embouts d'étanchéité en dehors de l'isolation thermique ELS-200 à des fins autres que celles décrites dans la notice d'utilisation.
- Installation, mise en service, utilisation, entretien ou élimination par du personnel non autorisé ou non qualifié
- Travaux sur des pièces ou des circuits sous tension sans mise hors tension du Kit pour la pose d'embouts d'étanchéité en dehors de l'isolation thermique ELS-200 ou de l'installation
- Mise en service de composants du système endommagés ou défectueux ou installation incomplète
- Modification technique non autorisée du Kit pour la pose d'embouts d'étanchéité en dehors de l'isolation thermique ELS-200 ou de ses composants

Qualification personnelle

Pour la planification, l'installation, la mise en service, l'exploitation et la maintenance du système, il convient de respecter les exigences relatives à la qualification du personnel conformément à la norme DIN/EN 60079-14, note annexe A.

Kit contents

The following table lists the kit contents for the ELS-200 high profile end seal:



ELS-200 high profile end seal with cold applied connection technology



1 x
Silicone adhesive



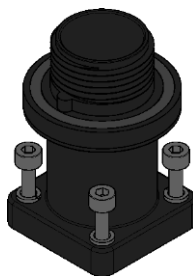
1 x
End seal



2 x
Trace heater grommet



1 x
Top cover




1 x
Top unit of the mounting stand
incl. sealing ring





1 x
Base unit of the mounting stand

Accessories


The following accessories are available for the US-Version of ELS-200 high profile end seal:

	<p>Stainless steel pipe straps</p> <p>Stainless steel, for attaching mounting stands on pipes etc. No special tooling required.</p>	<p>for pipe ø up to 3" / DN80: Catalog No.: PC-1 Part No.: 03-6510-0228</p> <p>for pipe ø up to 10" / DN250: Catalog No.: PC-2 Part No.: 03-6510-0229</p>
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	<p>Electrically traced warning label</p> <p>Warning label for trace heater circuits</p> <p><i>Recommended: electrical warning label every 10 ft (3 m) on the outside of the thermal cladding on a clearly visible place.</i></p>	<p><i>English:</i> Catalog No.: HTWL-US Part No.: 05-2144-0047</p> <p><i>French:</i> Catalog No.: HTWL-FR Part No.: 05-2144-0703</p>
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	<p>Small pipe adaptor PBS</p> <p>Mounting stand adaptor for pipe diameters of less than 1 3/8" (35 mm). For use in mounting stands when using 1 or 2 heating cable, e.g. PBS-, ELL- or PBTC junction boxes.</p>	<p>Catalog No.: PBS-SPA Part No.: 05-1105-0071</p>
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The following accessories are available for the EU-Version of ELS-200 high profile end seal:

	<p>Stainless steel pipe straps</p> <p>Stainless steel, for attaching mounting stands on pipes etc. No special tooling required.</p>	<p>for pipe ø up to DN80: Catalog No.: PC-1 Part No.: 03-6510-0228</p> <p>for pipe ø up to DN250: Catalog No.: PC-2 Part No.: 03-6510-0229</p>
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	<p>Electrically traced warning label</p> <p>Warning label for trace heater circuits</p> <p><i>Recommended: electrical warning label every 3 m on the outside of the thermal cladding on a clearly visible place.</i></p>	<p><i>German:</i> Catalog No.: HTWL-DE Part No.: 05-2144-0046</p> <p><i>English:</i> Catalog No.: HTWL-EN Part No.: 05-2144-0047</p> <p><i>French:</i> Catalog No.: HTWL-FR Part No.: 05-2144-0703</p> <p><i>Russian:</i> Catalog No.: HTWL-RU Part No.: 05-2144-0860</p>
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Small pipe adaptor PBS

Mounting stand adaptor for pipe diameters of less than 35 mm. For use in mounting stands when using 1 or 2 heating cable, e.g. PBS-, ELL- or PBTC junction boxes.

Catalog No.: PBS-SPA
Part No.: 05-1105-0071

For both versions are available:



CAK-E5/E10 Cold applied end seal

Silicone end seal for insulation of the end of the trace heater. Suitable to all Bartec parallel trace heating cable. Approved accordingly IECEx, ATEX, CSA (ordinary and hazardous locations)

CAK-E5 5 pcs.
CAK-E10 10 pcs.

CAK-E5:

Catalog No.: CAK-E5
Part No.: 27-59CZ-90000005

CAK-E10:

Catalog No.: CAK-E10
Part No.: 27-59CZ-90000010

Installation

Required tools / equipment

The following tools and equipment are required for installation of the ELS-200 high profile end seal:

- Wire cutters
- Flat screwdriver
- 4 mm hex wrench
- Tape measure
- Utility knife
- Tongue and groove pliers



1

Cautions and warnings

⚠ WARNING

Risk of fire or electrical shock due to electric trace heating system.
De-energize all power circuits before installation or servicing. Always use ground fault equipment protection with the trace heating system.
Keep the trace heater ends dry before and during installation. Observe the design guide of the trace heating system.

⚠ AVERTISSEMENT

Risque d'incendie ou d'électrocution dû au système de chauffage par traçage électrique.
Mettez tous les circuits électriques hors tension avant de procéder à l'installation ou à l'entretien. Utilisez toujours une protection contre les défauts de terre avec le système de traçage chauffant.
Maintenir les extrémités du traceur chauffant sèches avant et pendant l'installation. Respecter le guide de conception du système de traçage chauffant.

- Double-check that all power circuits are de-energized before you begin your work.
- Make sure that you do not exceed the maximum heating circuit length for the trace heater type you use.
- Observe the bending radius of each type of trace heater. Do not bend on the narrow axis.
- To avoid short circuits, do not connect the trace heater bus wires together.
- Keep all components and the trace heaters dry before and during installation.

2

⚠ CAUTION

Risk of injury and/or material damage. Never step on or drive over the trace heater. Do not use it as a loop for stepping on.

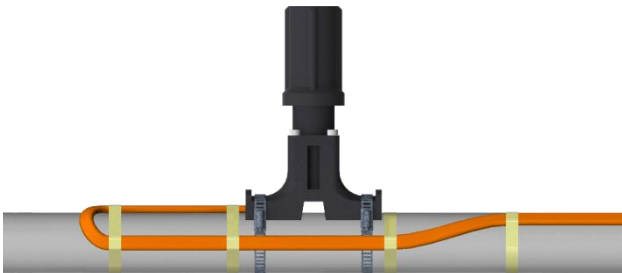
⚠ ATTENTION

Risque de blessures et/ou de dommages matériels. Ne pas marcher ni rouler sur le câble chauffant. Ne pas s'en servir comme cordage.

- Preferably install the trace heater in a straight line along the pipe. This saves time, helps to avoid installation mistakes and prevents damage to the trace heater during the thermal insulation work.

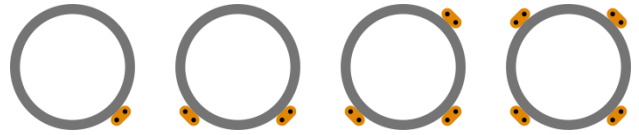


- Be sure to leave a service loop to ensure adequate heater length to install the end seal.



3

- Preferably install the trace heater in the lower half of the pipe, but not on the lowest point. This prevents mechanical damage and allows for better heat distribution. If you use multiple trace heaters, position them with an offset of 90°.

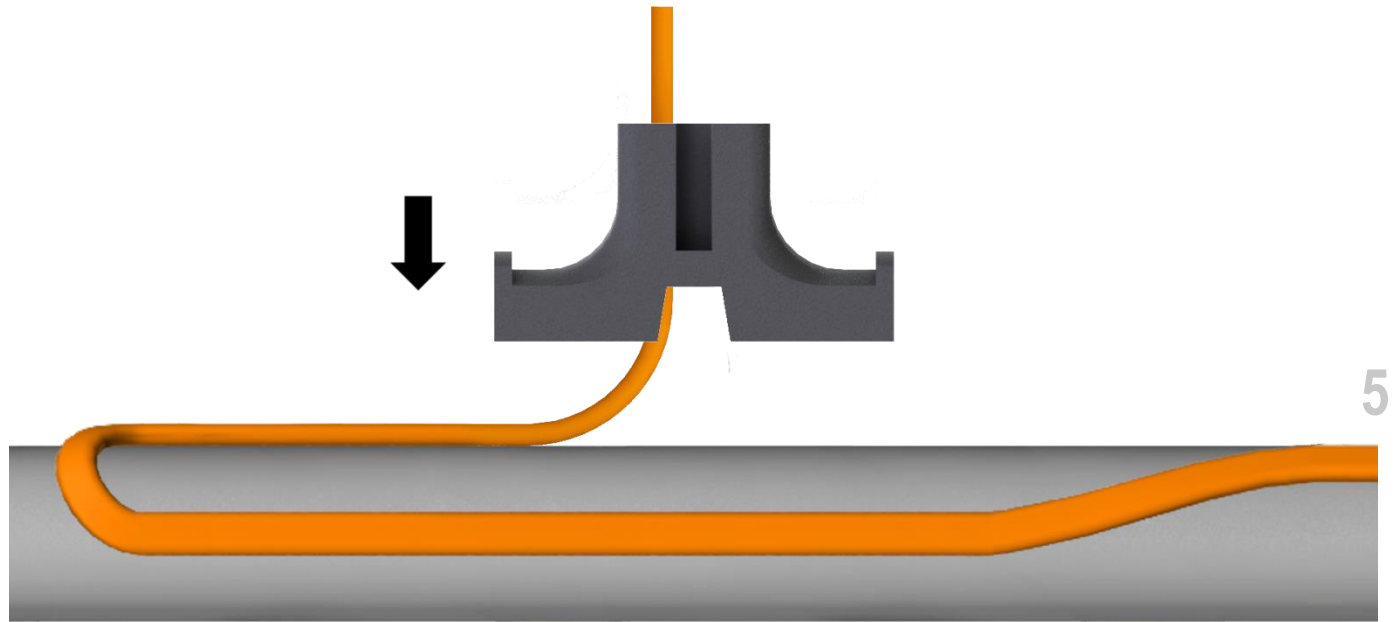


- Mount the mounting stand and junction box preferably on top of the workpiece, e.g. the pipe. If a different orientation of the junction box and mounting stand is necessary, there is a risk of water collecting in the mounting stand. Avoid water accumulation in the mounting stand! BARTEC recommends applying the pipe insulation immediately after installing the junction box and the mounting stand.

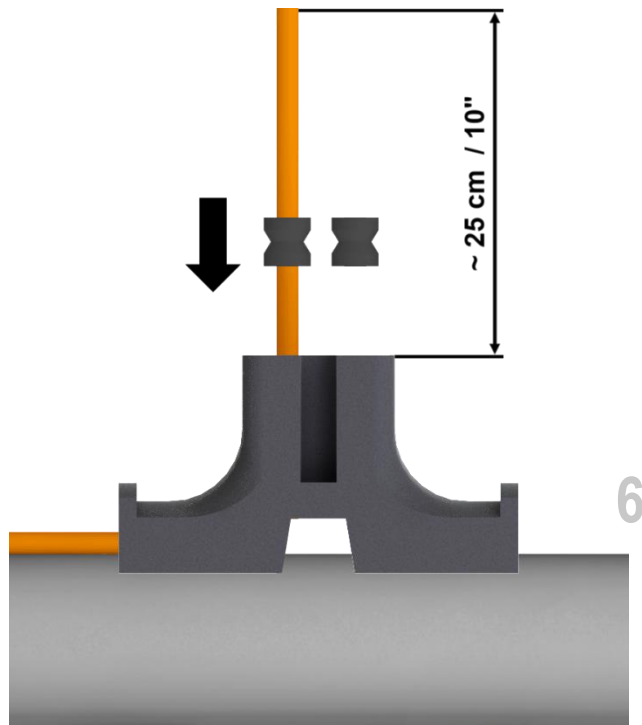
4

Preparation of the trace heater

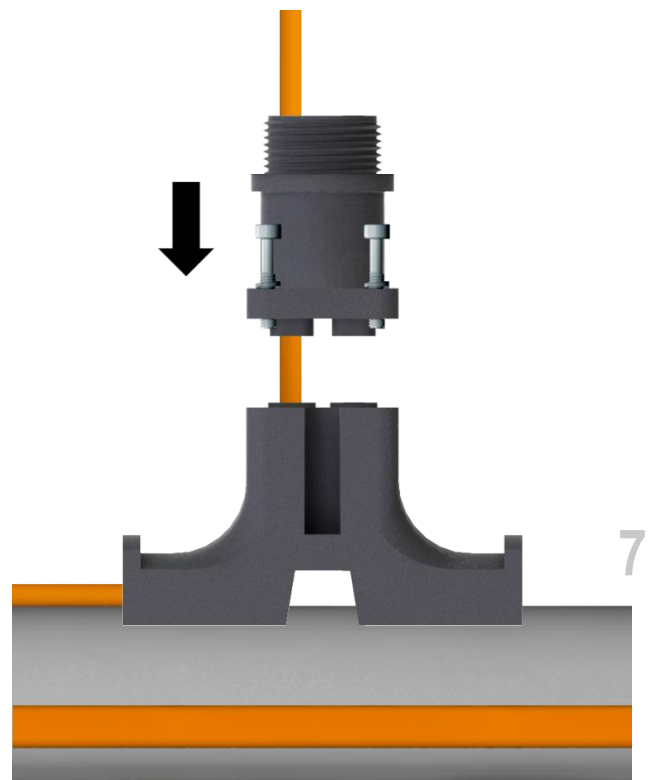
- Pass the trace heater through the base unit of the mounting stand.
- Do not fix the mounting stand on the pipe yet.



- Slide the trace heater grommet onto the trace heater and into the seal seat.
- Slide the second trace heater grommet into the free seal seat.
- Make sure that the trace heater stands out approximately 25 cm (10"). This makes cable preparation easier.

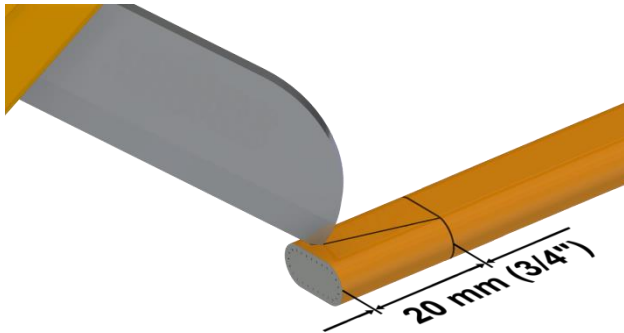


- Slide the top unit of the mounting stand over the trace heater.
- Slightly tighten the 4 fixing screws using a 4 mm hex wrench. Do not tighten them fully yet to allow the trace heater to be moved.



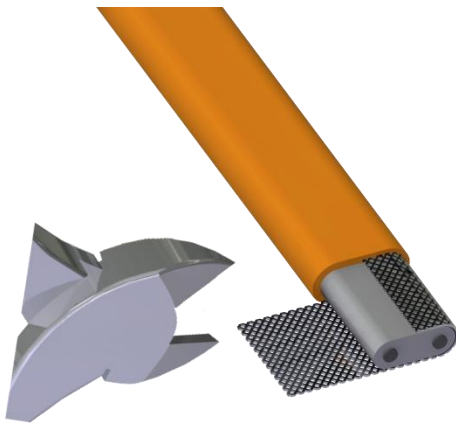
Installation of the end seal

- Cut the trace heater off straight.
- Remove 20 mm (3/4") of the outer jacket.



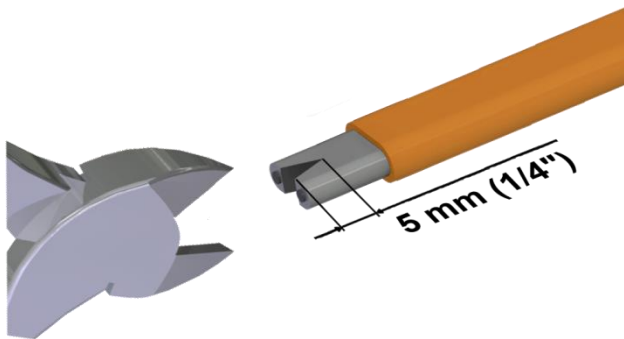
8

- Remove the exposed grounding braid. Make sure that the insulation jacket is not damaged.



9

- Cut in a triangle on 5 mm (1/4") between the bus wires.



10

CAUTION

The silicone adhesive may cause irritation to skin and eyes. Avoid eye contact. Avoid repeated or prolonged skin contact. In case of contact with eyes, rinse with water and seek medical advice.

ATTENTION

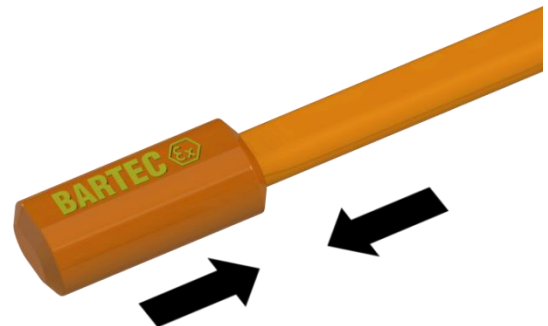
La colle silicone peut irriter la peau et les yeux. Éviter tout contact avec les yeux. Éviter tout contact répété ou prolongé avec la peau. En cas de contact avec les yeux, rincer à l'eau claire et consulter un médecin.

- Put silicone adhesive onto the exposed insulating jacket and into the end seal.



11

- Slide the end seal over the end of the trace heater.



NOTICE

Allow the adhesive to cure for 20 minutes, then visually inspect. Full strength is reached after 24 hours.

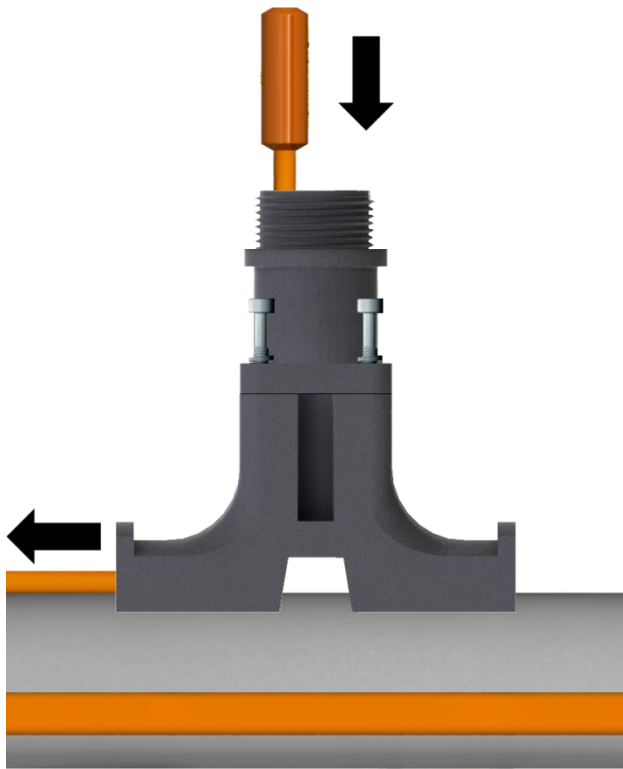
AVIS

Laissez sécher la colle 20 minutes avant de procéder à une inspection visuelle. La résistance finale sera atteinte après 24 heures.

12

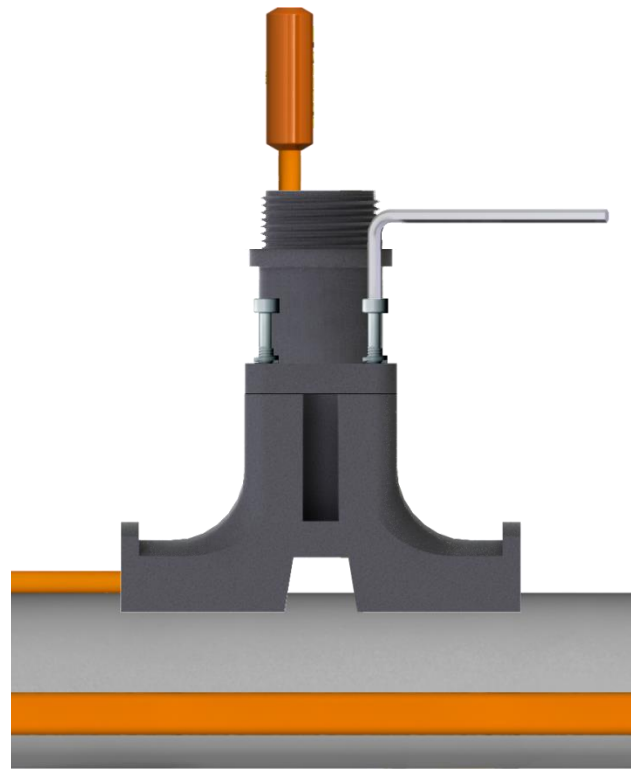
Installation of the mounting stand and top cover

- Pull back the trace heater. The end seal should slightly stand out of the mounting stand.



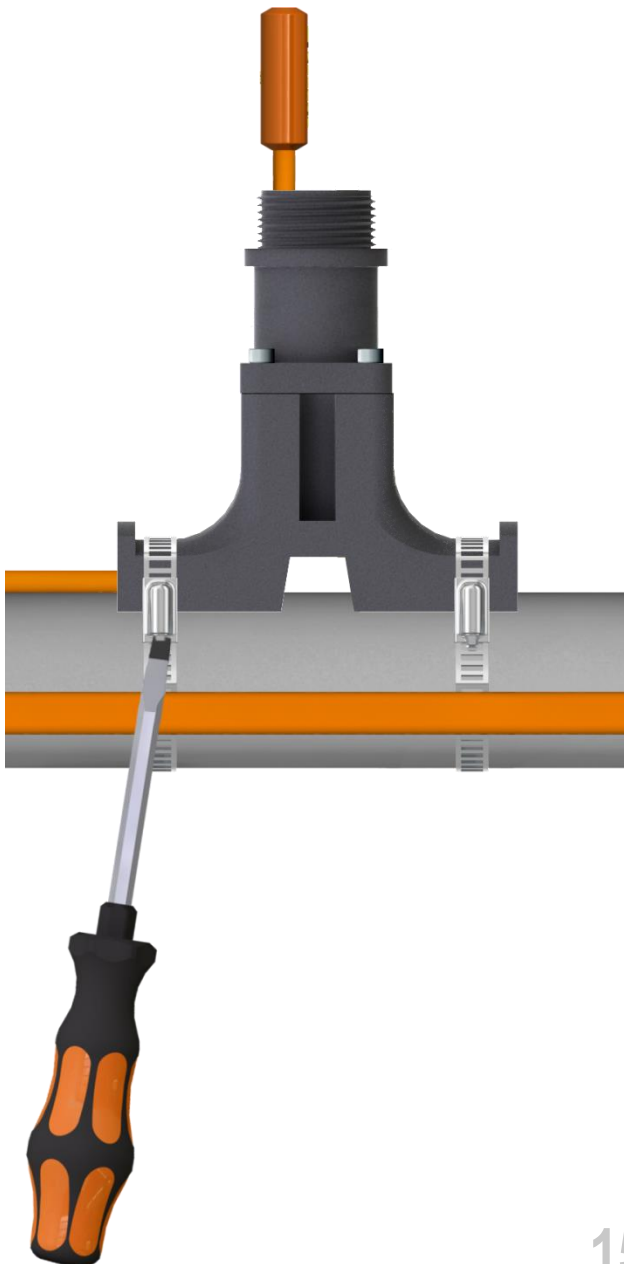
13

- Now, tighten the 4 fixing screws of the top unit of the mounting stand using a 4 mm hex wrench.



14

- Install the pipe straps and tighten them firmly using a screwdriver.



15

- Slide the top cover onto the top unit of the mounting stand.
- Tighten the top cover using tongue and groove pliers.



16

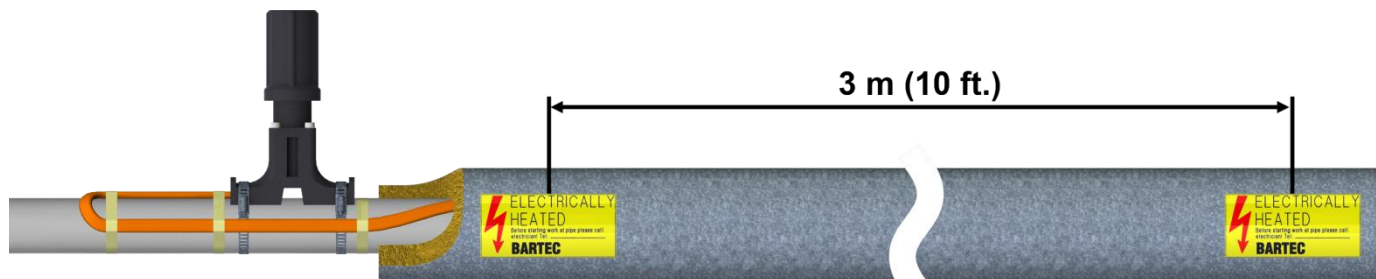
NOTICE

Insulation resistance measurement is recommended at certain stages:

- Preliminary test (on the reel, before installation of the trace heater on the construction site)
- Acceptance test (after installation of the heating circuit and before installation of the thermal insulation)
- Final inspection (immediately after completion of work on the thermal insulation)
- Upon commissioning
- Before switching on the installation

Application of the pipe insulation

- Apply the pipe insulation according to the manufacturer's installation instructions.
- Apply electrical warning labels each 3 m (10 ft.) on a clearly visible place.



17

NOTICE

Insulation resistance measurement is recommended at certain stages:

- Preliminary test (on the reel, before installation of the trace heater on the construction site)
- Acceptance test (after installation of the heating circuit and before installation of the thermal insulation)
- Final inspection (immediately after completion of work on the thermal insulation)
- Upon commissioning
- Before switching on the installation

Troubleshooting

Problem	Possible cause	Remedy
Trace heater remains cold	No power supply	Check the power wiring for continuity to circuit breaker.
	Trace heater bus wires or power wiring not properly connected	Connect the trace heater and cold lead cable according to the installation instructions.
	Control unit adjusted incorrectly	Adjust the control unit according to the installation instructions.
Automatic circuit breaker tripped	Automatic circuit breaker defective	Replace the automatic circuit breaker.
	Automatic circuit breaker has wrong tripping characteristics, e. g. "B" instead of "C"	Install an automatic circuit breaker with Type-C tripping characteristics or contact the factory for Type-B tripping characteristics.
	Nominal circuit breaker size is insufficient	Install an automatic circuit breaker with higher capacity. Observe the maximum amperage of all components of the trace heating circuit!
	Maximum heating circuit length has been exceeded	Split the heating circuit into separate circuits.
	End seal has not been installed	Install the end seal according to the installation instructions.
	Short circuit	Identify the cause and remedy the fault (e. g. ensure that trace heater bus wires are not twisted together).
Ground fault protection is disengaged	Humidity inside the connection system or end seal	Dry the components. For junction boxes, be sure that the conduit drain is installed and breathing properly.
	Trace heater damaged	Replace the trace heater at the point where it is damaged.
	Moisture in the components	Dry the components. For junction boxes, be sure that the conduit drain is installed and breathing properly.
Low or inconsistent insulation resistance	Ground fault protection defective	Replace the ground fault protection device(s).
	Trace heater damaged	Replace the trace heater at the point where it is damaged.
	Moisture in the components	Dry the components. For junction boxes, be sure that the conduit drain is installed and breathing properly.
	Arcing due to damaged trace heater insulation	Replace the trace heater at the point where it is damaged.
	Arcing due to inadequate stripping distance between heating element and grounding braid	Check the stripping distance between bus wires//heating element and grounding braid at all power, splice and end seal connections to ensure adequate separation.
Short-circuit between the grounding braid and the heating element or the grounding braid and the pipe	Short-circuit between the grounding braid and the heating element or the grounding braid and the pipe	Check for cut or damaged cable or inadequate stripping length.
	Test leads touching the junction box	Relocate test leads and retest.

Note: High pipe temperature may lower the insulation resistance reading relative to earlier readings on a cold pipe.

Limited product warranty (North America)

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 two (2) years.

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 US general terms and conditions shall apply.

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.

Applicability of implied warranties, state or provincial laws

BARTEC HEREBY DISCLAIMS, TO THE FULL EXTENT POSSIBLE UNDER APPLICABLE LAW, (I) ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR USE OR FREEDOM FROM INFRINGEMENT OR THIRD PARTY INTELLECTUAL PROPERTY RIGHTS, OR ARISING FROM COURSE OF DEALING, COURSE OF PERFORMANCE OR USAGE OF TRADE, AND (II) ANY OTHER OBLIGATION OR LIABILITY ON THE PART OF BARTEC MANAGEMENT, IN EACH CASE, WHETHER BASED ON STATUTE, CONTRACT, STRICT LIABILITY, TORT OR ANY OTHER LEGAL THEORY AND IRRESPECTIVE OF WHETHER BARTEC HAS ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. BARTEC'S RESPONSIBILITY TO REPAIR, REPLACE, OR OFFER A REFUND FOR BARTEC PRODUCTS AND ACCESSORIES THAT ARE THE SUBJECT OF THIS MANUAL IS THE SOLE AND EXCLUSIVE REMEDY PROVIDED TO THE CUSTOMER FOR BREACH OF THE WARRANTY PROVIDED HEREIN.

Some countries, states and provinces do not allow the exclusion or limitation of incidental or consequential damages or exclusions or limitations on implied warranties, so the above limitations may not apply to you.

Contact

Bartec US, 650 Century Plaza Drive, Suite D120, Houston, Texas 77073, USA
 Phone: +1 281 214-8542, Fax: +1 281 241-8547
 sales@bartec.us, www.bartec.us

Limited product warranty (Worldwide, excepting North America)**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://www.bartec.de/en/terms/>

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

EC Declaration of conformity

EU Konformitätserklärung
 EU Declaration of Conformity
 Déclaration UE de conformité
 N° 21-1S00-7C0001

BARTEC

Wir	We	Nous
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BARTEC GmbH
 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
PSB / MSB Heizsystem	PSB / MSB Heating system	PSB / MSB Système de Chauffage

**Typen 27-1S3*_*/*/*/*
 27-1S4*_*/*/*/***

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
ATEX-Richtlinie 2014/34/EU	ATEX-Directive 2014/34/EU	Directive ATEX 2014/34/UE
RoHS-Richtlinie 2011/65/EU	RoHS-Directive 2011/65/EU	Directive RoHS 2011/65/UE
EMV-Richtlinie 2014/30/EU	EMC-Directive 2014/30/EU	Directive CEM 2014/30/UE
RED-Richtlinie 2014/53/EU	RED-Directive 2014/53/EU	Directive RED 2014/53/UE
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

- | | |
|---|---|
| EN IEC 60079-0:2018
EN 60079-1 :2014
EN 60079-7:2015/A1:2018
EN 60079-30-1:2017
EN 60079-31:2014
EN 60079-11 :2012
EN 60079-18:2015 + A1 :2017
EN 60529:1991
+ A1:2000 + A2:2013/AC :2019
EN 50495:2010

EN 300328 V2.1.1
EN 62395-1:2013 | EN 60947-7-1 :2009
EN 60947-7-2 :2009
EN 60068-2-27 :2009
EN 61000-6-2 :2005
EN61000-6-4 :2007 + A1 :2001

EN 60730-1:2011
EN 60730-2-9:2010
EN 61326-1:2013
EN 61000-4-2:2009
EN 61000-4-3:2006+A1:2007
+A2:2010
EN 61000-4-4:2012
EN 61000-4-5:2014 +A1:2017
EN 61000-4-6:2014
EN 61000-4-8:2010
EN 61000-4-11:2004+A1:2017 |
|---|---|

Verfahren der EU-Baumusterprüfung / Benannte Stelle	Procedure of EU-Type Examination / Notified Body	Procédure d'examen UE de type / Organisme Notifié
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DEKRA 20ATEX0093 X

0344, DEKRA Certification B.V., Meander 1051, 6825 MJ Arnhem, NL



Bad Mergentheim, 22.02.2023

i.V. Tobias Dold

Head of Business Unit EHT

i.A. Ulrich Mann

Certification Manager

EU Konformitätserklärung
 EU Declaration of Conformity
 Déclaration UE de conformité
 N° 21-54E2-7C0001

BARTEC

Wir	We	Nous
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BARTEC GmbH
 Max-Eyth-Straße 16
 97980 Bad Mergentheim
 Germany

erklären in alleiniger Verantwortung, dass das Produkt ELL / ELS Anschlussgehäuse und CAK An-/Abschlusstechnik	declare under our sole responsibility that the product ELL / ELS Installation Enclosure and CAK Power-/termination technique	attestons sous notre seule responsabilité que le produit ELL / ELS coffret d'alimentation et CAK Connexion-/termination technique
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Typen 27-54E2-**/****
 27-59CX-****/******

auf das sich diese Erklärung bezieht den Anforderungen der folgenden Richtlinien (RL) entspricht ATEX-Richtlinie 2014/34/EU RoHS-Richtlinie 2011/65/EU EMV-Richtlinie 2014/30/EU und mit folgenden Normen oder normativen Dokumenten übereinstimmt	to which this declaration relates is in accordance with the provision of the following directives (D) ATEX-Directive 2014/34/EU RoHS-Directive 2011/65/EU EMC-Directive 2014/30/EU and is in conformity with the following standards or other normative documents	se référant à cette attestation correspond aux dispositions des directives (D) suivantes Directive ATEX 2014/34/UE Directive RoHS 2011/65/UE Directive CEM 2014/30/UE et est conforme aux normes ou documents normatifs ci-dessous
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EN IEC 60079-0:2018 EN 60079-7:2015/A1:2018 EN 60079-30-1:2017 EN 60079-31:2014 EN 60079-1 :2012	EN 60529:1991 + A1:2000 + A2:2013/AC :2019 EN 60068-2-27 :2009 EN 61000-6-2 :2005 EN61000-6-4 :2007 + A1 :2001
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Verfahren der EU-Baumusterprüfung / Benannte Stelle	Procedure of EU-Type Examination / Notified Body	Procédure d'examen UE de type / Organisme Notifié
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DEKRA 21ATEX0118 X

0344, DEKRA Certification B.V., Meander 1051, 6825 MJ Arnhem, NL



Bad Mergentheim, 22.02.2023

i.V. Tobias Dold

Head of Business Unit EHT

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Certification Manager

