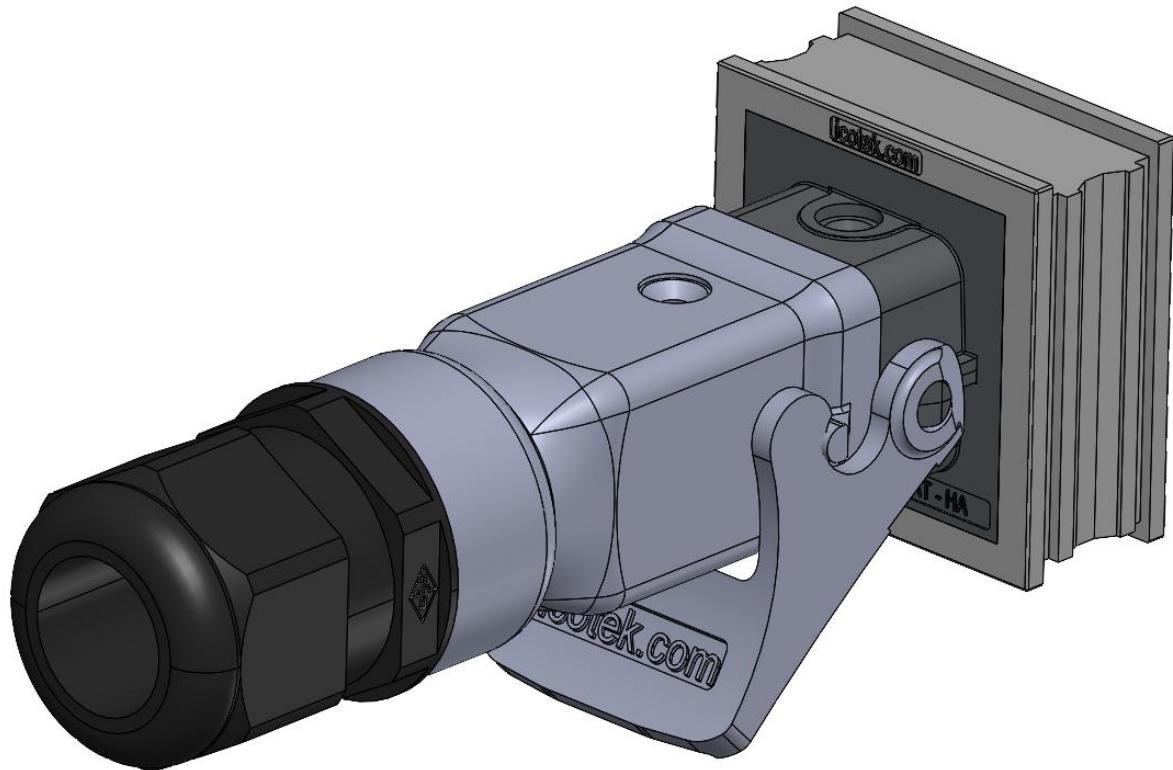




smart cable management.

ORIGINAL OPERATING AND INSTALLATION INSTRUCTIONS

Plug connector including adapter grommet



Save for future use!

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This document requires the following approvals:

| name | title |
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1 Introduction

This Original operating and installation instructions provides you with all the information you need for the smooth operation of the Plug connector including adapter grommet (hereinafter also referred to as Product).

The Original operating and installation instructions must be read, understood, and followed by all persons responsible for the assembly/installation, transport, commissioning, use, maintenance, cleaning, troubleshooting, decommissioning, dismantling, and disposal of the Product. This applies in particular to the safety instructions listed.

After studying the Original operating and installation instructions you can

- the Plug connector including adapter grommet transport safely,
- the Plug connector including adapter grommet Mount/install safely,
- the Plug connector including adapter grommet put into operation safely,
- the Plug connector including adapter grommet Use safely,
- Take appropriate action when a problem occurs
- the Plug connector including adapter grommet wait according to regulations,
- the Plug connector including adapter grommet clean according to regulations,
- the Plug connector including adapter grommet take out of service safely,
- the Plug connector including adapter grommet Dismantle safely,
- the Plug connector including adapter grommet Dispose of properly.

In addition to the Original operating and installation instructions generally applicable, legal and other binding regulations for accident prevention and environmental protection of the country of use must be observed.

The Original operating and installation instructions are always kept at the installation site of the Plug connector including adapter grommet to store.

1.1 Presentation means

As a guide and direct warning of dangers, particularly important text statements in these Original operating and installation instructions marked as follows:

1.1.1 Section-specific warnings

Section-specific warnings apply not only to a specific action, but to all actions within a section.

Construction

SIGNAL WORD



Symbol to further explain the danger

Type and source of the danger!

Possible consequences of non-compliance!

- Measure(s) to avoid the danger.

Hazard levels

DANGER

A high-risk hazard which, if not avoided, will result in death or serious bodily injury.

WARNING

A medium-risk hazard which, if not avoided, could result in death or serious bodily injury.

CAUTION

Low-risk hazard which, if not avoided, may result in minor or moderate bodily injury.

A NOTICE

A low-risk hazard that, if not avoided, could result in property damage.

1.1.2 Embedded warnings

Embedded warnings apply to specific actions and are integrated directly into the action.

Construction

⚠ SIGNAL WORD, type and source of danger

Possible consequences of non-compliance

- ▶ Measures to avoid the danger

Hazard levels

- **⚠ DANGER / WARNING / CAUTION**
- **NOTICE** (without warning triangle)

1.1.3 Other means of presentation



The info symbol provides useful information.

- Texts that follow this marker are lists.
- ▶ Texts that follow this marker describe measures in warnings and action steps.
- a) Texts that follow this marker describe activities that must be carried out in the specified order.
- “ Text in quotation marks refers to other chapters or sections.

1.1.4 Symbols used in the Original operating and installation instructions

In warning notices, special hazards are additionally marked as follows:

| symbol | Description |
|-------------------------|---|
| Warning signs | |
| | Warning: Electrical voltage This symbol warns of the dangers of electrical voltage. |
| Prohibition sign | |
| | No entry for unauthorized persons This symbol prohibits unauthorized access to the danger zone. Unauthorized persons cannot recognize the dangers. |
| Mandatory signs | |
| | Original operating and installation instructions This symbol indicates that the Original operating and installation instructions be followed. |

| symbol | Description |
|---|---|
|  | <p>Use safety goggles This symbol indicates that protective goggles must be worn in the area of operation.</p> |
|  | <p>Use safety shoes This symbol indicates that safety shoes must be worn in the work area.</p> |
|  | <p>Use hand protection This symbol indicates that hand protection must be worn in the operational area.</p> |
|  | <p>Use personal protective clothing This symbol indicates that personal protective equipment must be worn in the area of operation.</p> |
| Other symbols | |
|  | <p>Functional grounding This symbol describes the connection points of the functional earthing in the Product.</p> |
| 1, 2, 3 | <p>Designation contact chambers and contact carriers The numbers denote the individual contact chambers and contact carriers.</p> |
|  | <p>Disposal instructions This symbol indicates that the marked product must not be disposed of with household waste.</p> |
|  | <p>recycling This symbol represents the return of various materials to the recycling loop.</p> |
|  | <p>CE marking The CE marking on the product is the manufacturer's declaration that the product meets the essential requirements of the relevant European health, safety and environmental protection laws.</p> |

1.2 Warranty and liability

- connectors including adapter sleeve apply . Plug connector including adapter grommet in industrial settings, indoors (never use outdoors). Any Plug connector including adapter grommet that goes beyond their intended use and/or is of a different nature Plug connector including adapter grommet check that all housings are properly fitted and functioning.

- ▶ You must not remove the housing during operation.
- ▶ Enclosures may only be used after the Plug connector including adapter grommet be removed.
- ▶ Check all Plug connector including adapter grommet regularly check for damage.

1.3 Emergency instructions

Preventive measures

- ▶ Always be prepared for accidents or fires.
- ▶ Keep first aid equipment (first aid kit, blankets, etc.) and fire extinguishers readily available.
- ▶ Familiarize staff with accident reporting, first aid, fire extinguishing and rescue - equipment.
- ▶ Keep access routes clear for emergency vehicles.

Measures to take in case of accidents

- ▶ Interrupt the energy supply to the Plug connector including adapter grommet .
- ▶ Rescue people from the danger zone.
- ▶ In the event of cardiac and/or respiratory arrest, immediately begin resuscitation.
- ▶ In case of personal injury, notify the first aid officer and an emergency doctor or the rescue service.
- ▶ Clear access routes for emergency vehicles. If necessary, assign someone to guide the emergency services.
- ▶ Extinguish a fire involving electrical components with a CO2 extinguisher.

1.4 Operator's obligation

The **Plug connector including adapter grommet** It is used in commercial settings. The operator of the **Plug connector including adapter grommet** It is therefore subject to legal obligations regarding occupational safety.

In addition to the safety instructions in these **Original operating and installation instructions** the instructions for the application area of the **Plug connector including adapter grommet** Valid safety, accident prevention, and environmental protection regulations must be observed. In particular, the following applies:

- The operator must ensure that the **Plug connector including adapter grommet** only used as intended.
- The operator must always have the **Original operating and installation instructions** legible and complete at the installation site of the **Plug connector including adapter grommet** provide.
- The operator must clearly regulate and define the responsibilities for installation, commissioning, use, maintenance and cleaning.
- The operator may only allow persons to work on the **Plug connector including adapter grommet** Allow those who have reached the legally permissible minimum age to work.
- The operator may only use sufficiently qualified and trained personnel on the **Plug connector including adapter grommet** let them do their work.
- The operator must ensure that all persons who use the **Plug connector including adapter grommet** The operator must have read and understood the **Original operating and installation instructions** . Furthermore, they must demonstrably train their staff at regular intervals and inform them about the hazards.
- The operator must provide personal protective equipment to staff and ensure that it is used.
- The operator must ensure that only persons are allowed to work on the **Plug connector including adapter grommet** work whose reaction time is not impaired by drugs, alcohol, medication or similar substances.

Furthermore, the operator is responsible for ensuring that the **Plug connector including adapter grommet** is always in technically perfect condition. Therefore, the following applies:

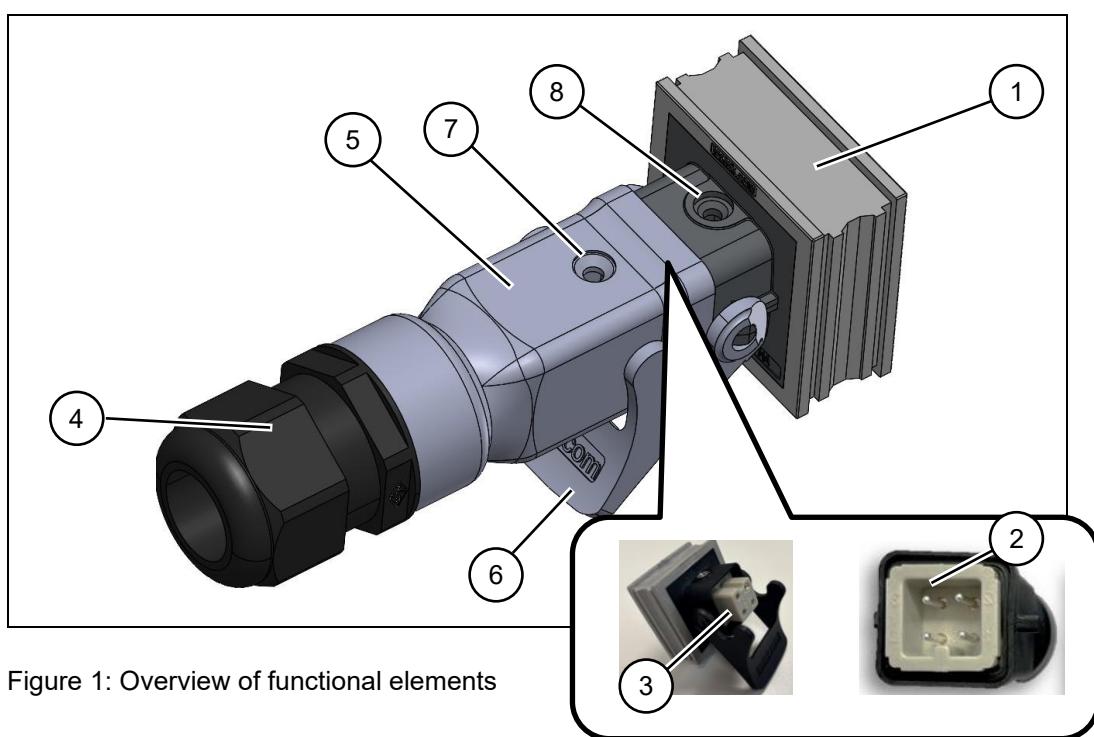
- The operator must ensure that the maintenance intervals described in these **Original operating and installation instructions** are adhered to.
- The operator must have all enclosures regularly checked for damage and completeness.
- The operator must regularly check that all components on the **Plug connector including adapter grommet** The attached instructions must be clearly legible and permanently attached to the **Plug connector including adapter grommet** remain.

2 Description of the Plug connector including adapter grommet

2.1 Overview

All illustrations in this document are for general understanding purposes and may differ from the actual design.

2.1.1 Overview of functional elements



| | |
|------------------------------------|-------------------------------|
| 1 Adapter nozzle | 5 Connector housing |
| 2 Plug with contact carrier | 6 Crossbar |
| 3 Plug socket with contact inserts | 7 Cross screw for plug |
| 4 cable gland | 8 Cross screw for plug socket |

2.1.2 Contact inserts and contact carriers

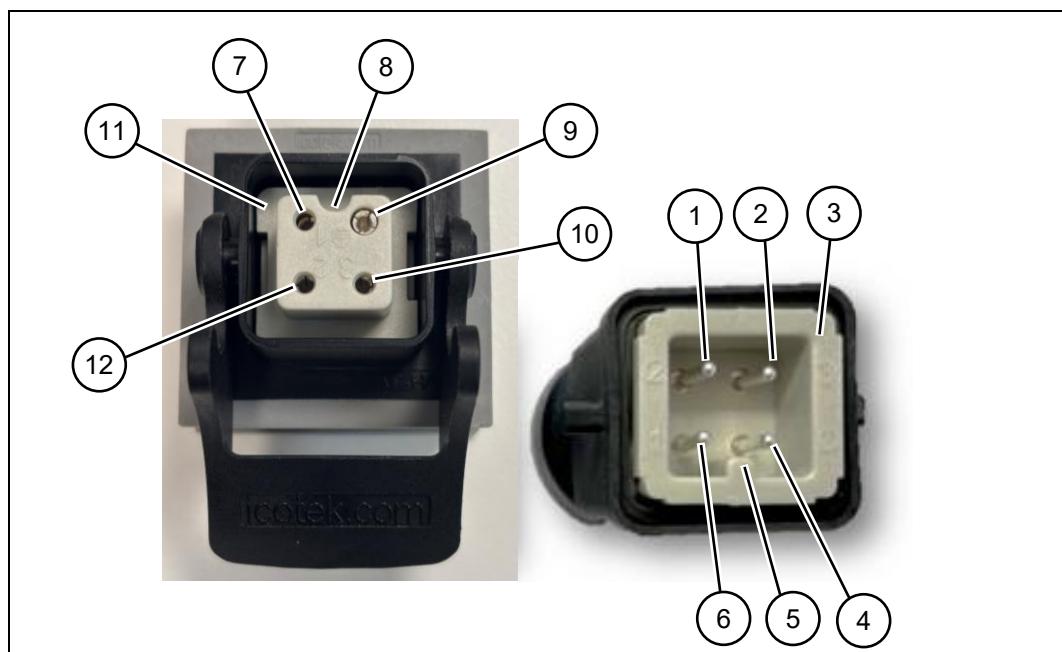


Figure 2: Overview of connector pin assignments

| | | | |
|---|---------------------------|----|--------------------------------------|
| 1 | Contact carrier 2 | 7 | Contact chamber 1 |
| 2 | Contact carrier 3 | 8 | Coding of plug socket |
| 3 | Plug | 9 | Contact chamber grounding connection |
| 4 | Contact carrier grounding | 10 | Contact chamber 3 |
| 5 | Coding plug | 11 | Plug socket |
| 6 | Contact carrier 1 | 12 | Contact chamber 2 |

2 Description of the Plug connector including adapter grommet

2.1 Overview

2.1.3 Component designation

| illustration | Designation |
|---|--------------------|
|  | HA-3-TIMES |
|  | HA-3-FEM |
|  | HA-4-TIMES |
|  | HA-4-FEM |
|  | Protective cap H3A |

2.1.4 Component release plug/socket

Alternative components can be used without losing the CE marking (see document "Component Approval Plug – Socket" (latest version always available at icotek.com)). The CE marking becomes invalid for all other components. If additional components are to be included in the CE marking, they must be tested and approved by icotek GmbH & Co. KG.

2.2 Functional description

The adapter grommet with plug and housing is a crucial component that enables the secure connection of electrical conductors and the establishment or disconnection of connections. This connector is specifically designed for use in electrical engineering and requires careful installation according to the following instructions:

Plug with contact carrier

The actual plug, which contains the contact carrier and ensures a reliable electrical connection.

Plug socket with contact inserts

Receptacle for the plug, which contains contact inserts and thus establishes a secure connection.

Adapter grommet with receptacle for contact insert for cable entry strip

Grommet that can be inserted into a cable entry strip.

cable gland

The cable gland provides a secure seal and fixation of the cables to ensure strain relief and protection.

Connector housing

A housing for the connector that provides additional protection and supports overall functionality.

Iron

A bracket used to secure and stabilize the connector.

Mounting screw for plug

Screw for securely fixing the plug in the housing.

Mounting screw for plug holder

Screw for securely fastening the plug receptacle in the grommet housing .

It is important to note that the connector must not be live when unmated , even when sealed with a protective cap. Protection against electric shock must be ensured by correct installation, for which the user must take appropriate measures. Furthermore, adjacent connectors of the same or different design must be secured against incorrect mating by keying. The socket insert mounted in the connector housing provides standardized touch protection, even when unmated , unless otherwise specified.

2.3 Technical data

2.3.1 Dimensions and weight

| | | |
|--------------------------------|------|----|
| length | 42.0 | mm |
| Width | 41.5 | mm |
| Height (excluding cable gland) | 91.8 | mm |
| Weight (without plug inserts) | 60.2 | G |

2.3.2 General Information

| | |
|---------------------------------|---|
| Maximum rated operating voltage | Conductor-Earth 230V Conductor-conductor 400V According to UL 600 V |
| Housing material | PA6.6 GF25 |
| Material Accessories | Galvanized steel or V2A |
| Material locking mechanism | Bracket: PA6.6 GF25 |
| Seal material | TPE |
| Case color | Black RAL 9005 |

2.3.3 Environmental conditions

| | | |
|---|--------|---|
| Limit temperature (static) | -40 °C | up to +140 °C |
| Permissible ambient temperature during operation | -30 °C | up to +80 °C |
| Permissible ambient temperature during storage | +5 °C | up to +40 °C |
| Permissible humidity (non-condensing) | | 30 - 60% |
| Protection class IP according to EN 60529:1991 | | IP 54 / 65 |
| Cleanliness level of the operating environment (cleanroom class): | | clean and dry industrial environment inside buildings |
| Earthquake class: | | not an earthquake zone |
| Impact resistance grade IK according to EN 62262:2002 | | IK04 |
| Material flammability class according to UL 94 | | V-0 |

3 Transport and storage

3.1 Delivery by an authorized transport company

The Product delivered to the customer by a transport company authorized by icotek GmbH& Co KG .

3.2 Control upon receipt by the recipient

Upon arrival of the Plug connector including adapter grommet The customer must inspect the goods for visible transport damage.

- Report any transport damage immediately to the delivering party.

3.3 Packaging

The type of packaging is a key factor in determining the type of packaging. Unless otherwise contractually agreed, the packaging complies with the HPE packaging guidelines, which were established by the German Federal Association of Wood Products, Pallets, and Export Packaging (Federal Association for Wood Products, Pallets, and Export Packaging e.V.) and the Association of German Mechanical Engineering Institutes (Association of German Engineering Companies).

- Please note the pictograms on the packaging:

Examples of pictograms on packaging:

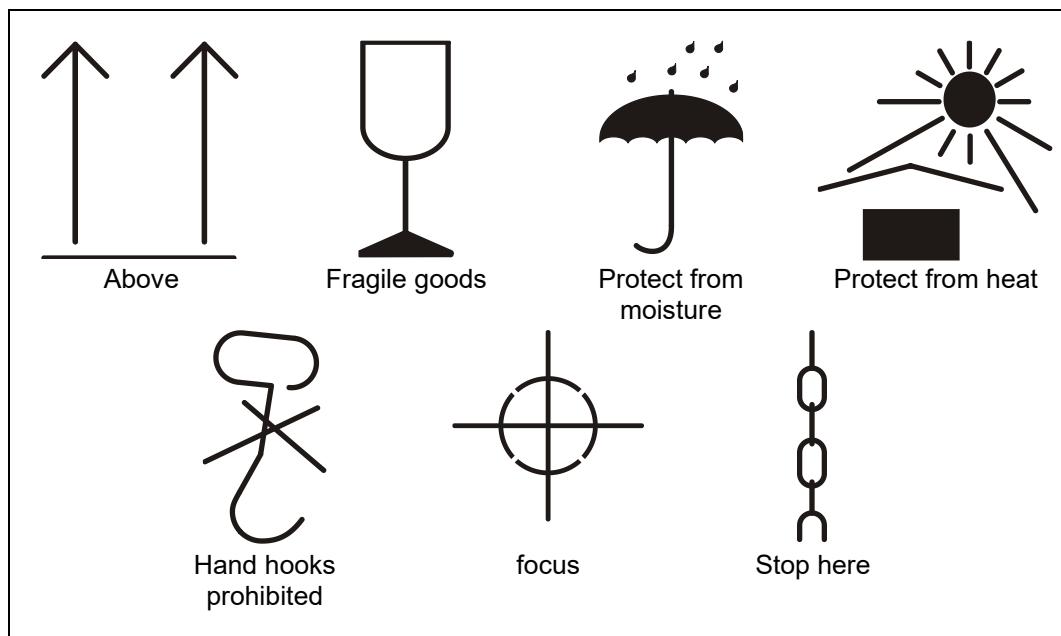


Image 3: Examples of pictograms on packaging

3.3.1 Unpacking

When unpacking the Plug connector including adapter grommet as follows:

- ▶ Remove all packaging materials, such as films and adhesive tapes, and dispose of them properly.
- ▶ Open the packaging carefully to avoid damaging the connector components . Use a suitable tool to open the packaging gently.
- ▶ Always remove all packaging before installing the Plug connector including adapter grommet .
- ▶ Please check the delivery for completeness against your order.
- ▶ Be sure to keep the supplied documents, they contain important information on how to handle the Plug connector including adapter grommet .
- ▶ Check the package contents for visible transport damage.
- ▶ Should you notice any transport damage or discrepancies between the packaging contents and your order, please inform icotek GmbH& Co KG .

3.3.2 Repacking

See chapter “ 3.3.1 Unpacking.

3.4 Warnings about hazards during transport

- ▶ The connector should be carefully and securely packaged to prevent damage during transport. Ensure that the packaging meets the specific requirements for transporting electronic components.
- ▶ During transport, avoid impacts and shocks to the connector. Store the packaging in a way that protects it from physical damage.
- ▶ The packaging should be clearly marked to alert transport personnel that it contains sensitive electronic components. Particular emphasis should be placed on the fragility of the included connector parts.
- ▶ Do not expose the connector to extreme temperatures during transport. Protect it from direct sunlight, heat sources, or frost to prevent possible damage.

3.5 Scope of delivery Plug connector including adapter grommet

The package Plug connector including adapter grommet consists of the following components:

- Plug connector including adapter grommet
- Pin and socket insert (optional)

3.6 Temporary storage

Will the Plug connector including adapter grommet If not assembled immediately upon delivery, it must be carefully stored in a protected location. The Plug connector including adapter grommet It must be stored in such a way that it is protected from cold, moisture, contamination, and chemical and mechanical influences. The recommended storage conditions Plug connector including adapter grommet can be found in the chapter "Environmental Conditions".



No liability is accepted for damage resulting from improper storage!

- ▶ Please also observe the storage conditions specified in the external manufacturer's operating or assembly instructions from the suppliers.

4 Assemble

Before starting assembly, carefully read all instructions and safety information in this manual.

Check the Plug connector including adapter grommet. Check for damage before installation. If visible damage is found, the Plug connector including adapter grommet not be installed and the manufacturer must be contacted.

4.1 Pre-assembly by icotek GmbH& Co KG

The Plug connector including adapter grommet. The product is fully pre-assembled by icotek GmbH& Co KG. See section 3.1.1 for bracket alignment.

4.2 Preparatory measures

4.2.1 Generally

Before assembling the Plug connector including adapter grommet. It must be ensured that

- Additional lighting equipment (e.g. hand lamps) should be available for assembly (if necessary).
- the operational area at the deployment site is clean and dust-free,
- The necessary tools for assembly should be readily available.

Tools and materials:

- screwdriver
- Torque wrench (if required)
- Mounting plate (if required)

4.2.2 Preparatory measures for electrical work

Before assembling the Plug connector including adapter grommet. It must be ensured that

- Connections for the power supply are properly prepared,
- The area where the connector is mounted is free of tension.

4.3 Choice of deployment location

4.3.1 Necessary usage and maintenance areas



- ▶ When choosing the deployment location, take the environmental conditions into account.
- ▶ When choosing the deployment location, consider the necessary usage and maintenance areas.
- ▶ Note that the free space at the Plug connector including adapter grommet at least 100 mm all around should amount to...

4.3.2 Requirements for the operating area

WARNING

Risk of injury due to instability!

There is a risk of serious injury due to instability when assembling the Plug connector including adapter grommet due to incorrect assembly!

- ▶ Note that the area of application:
 - planeben ,
 - temperature resistant, non-flammable and
 - vibration-freeis.
- ▶ Only authorized and trained personnel should carry out the assembly work.
- ▶ Place the Plug connector including adapter grommet Place the load on a surface dimensioned for the weights and loads that will occur and secure it.
- ▶ Always wear the necessary protective equipment for the job at hand (such as work clothes and safety shoes).
- ▶ Check that the work area has the necessary load-bearing capacity. The operator is responsible for the structural integrity of the work area. Observe the manufacturer's specifications regarding the work area.

⚠ WARNING

Risk of injury due to lack of space!

There are mechanical hazards due to overly dense arrangement!

- ▶ Choose the deployment location Plug connector including adapter grommet so that the required movement space of the personnel in the deployment area is not restricted or obstructed.
- ▶ Maintain the movement space according to ergonomic guidelines and standards.
- ▶ Block off the danger zone.
- ▶ Keep unauthorized persons away.
- ▶ Designate a responsible person.
- ▶ Lay power supply lines in a way that prevents tripping hazards and barriers (e.g., under covers).
- ▶ Mark tripping hazards.



- ▶ When choosing the deployment location, consider the necessary usage and maintenance areas.
- ▶ Note that the free space at the Plug connector including adapter grommet at least 100 mm all around should amount to...

4.4 Product assemble

4.4.1 Requirements for the deployment location

The following requirements must be met at the deployment location:

- ▶ Please ensure that the installation site has sufficient load-bearing capacity and is level.
- ▶ Avoid using the product in locations with heat-sensitive surfaces or near heaters, air conditioners, or flammable materials.
- ▶ Avoid using the device Plug connector including adapter grommet in locations near impermissible electromagnetic fields.
- ▶ Do not install it Plug connector including adapter grommet in locations where a corrosive or explosive atmosphere is present.
- ▶ use Plug connector including adapter grommet in EX areas.
- ▶ Pay attention to the environmental conditions.
- ▶ Please note that it Plug connector including adapter grommet must be protected from accidental impacts. Do not use vehicles (manual or electric pallet trucks, forklifts) in the vicinity of the Plug connector including adapter grommet .
- ▶ Keep the space requirements at least 100 mm all around for repairs in place.
- ▶ Please note that only persons familiar with and trained in the safety regulations are permitted to work on or with the Plug connector including adapter grommet .

4.4.2 Assembly process of the Plug connector including adapter grommet

Proceed with the assembly as follows:

- ▶ Insert the adapter grommet (item 1) into any cable entry frame. Observe the markings on the grommet for orientation and refer to the cable entry frame installation instructions.
- ▶ Connect the connector receptacle with contact inserts (item 3) to a cable (power contacts). Strip the cable strands according to the stripping lengths and insert them into the round contact chamber until the insulation is flush with the contact, then secure with the screw. Do not twist the wire strands additionally.
- ▶ Insert the connector receptacle with contact inserts (item 3) into the adapter sleeve (item 1). Secure the connector receptacle with contact inserts (item 3) in the adapter sleeve (item 1) using the cross screw (item 8). Check that it is secure and tight.
- ▶ Connect the connector with contact carrier including seal (item 2) to the cable (signal contacts). Strip the cable strands according to the stripping lengths and insert them into the round contact chamber until the insulation is flush with the contact, then secure with the screw. Do not twist the wire strands additionally.
- ▶ Slide the connector with contact carrier including seal (item 2) into the connector housing (item 5). Secure the connector with contact carrier (item 2) in the connector housing (item 5) using a transverse screw (item 7).
- ▶ Now slide the plug housing (Pos. 5) into the adapter grommet (Pos. 1) and lock it in place using the crossbar (Pos. 6).
- ▶ Remove packaging materials such as films and adhesive tapes and dispose of them properly.
- ▶ Before commissioning, check the Plug connector including adapter grommet for proper installation.

A NOTICE

- ▶ Ensure that the Plug connector including adapter grommet should be avoided, as it can be damaged.
- ▶ Ensure that all components are aligned according to the coding specifications to prevent incorrect connections .

4.5 Connect to the energy supply

4.5.1 Connect the power supply

DANGER

Touching live parts poses a risk of electric shock!

Failure to comply will result in death or serious injury!

- ▶ Before installing or servicing the connector, it must be ensured that the electrical voltage is switched off and the system is de-energized.
- ▶ Ensure that the contact protection specified by the standard, especially on the plug-in side, is also guaranteed when the connector is unplugged
- ▶ Coded connectors must be correctly aligned and connected to prevent incorrect mating. Ensure that adjacent connectors are properly coded.
- ▶ The cable entry point and cable gland are crucial for ensuring reliable strain relief of the connected cables. Make sure they are properly installed to prevent strain.
- ▶ Perform regular inspections to ensure the connector and its components are in perfect working order. If any signs of wear, damage, or malfunction are observed, the connector should be taken out of service immediately.
- ▶ The connector must not be plugged in or unplugged while under voltage, whether plugged in or unplugged.
- ▶ The installation and use of the connector must comply with applicable national and international electrotechnical standards.
- ▶ Always keep electrical components closed.
- ▶ Only allow work on electrical equipment to be carried out by a qualified electrician who is specifically trained to work on electrical equipment and can recognize and avoid hazards.
- ▶ Apply the five safety rules:
 1. Unlock.
 2. Secure against accidental reactivation.
 3. Determine the absence of tension.
 4. Ground and short-circuit.
 5. Cover or barricade any live parts.



DANGER

Electric shock can lead to secondary accidents caused by fright (e.g., falling)!

Failure to comply will result in death or serious injury!

- ▶ Apply the five safety rules when working on electrical equipment.
- ▶ Only allow a qualified electrician to carry out work on the electrical equipment.



- ▶ Be attentive and careful when connecting it. Plug connector including adapter grommet Only connect it if you are able to concentrate properly, or if you are not at risk of fainting.
- ▶ Use only undamaged cables, accessories, or other peripherals. Contact the manufacturer or an electrician if any parts are damaged.
- ▶ Use only shielded cables to connect the components to avoid interference. Failure to comply will invalidate the operating license. Plug connector including adapter grommet .
- ▶ Check the device. Plug connector including adapter grommet and cable for damage before electrical installation. If visible damage is found, if there is a strong odor, or if components become excessively hot, the power supply must be disconnected immediately and the device. Plug connector including adapter grommet must not be used.
- ▶ Protect cables from overload, crushing or kinking and lay them down so that people cannot trip over the cable.
- ▶ Never touch the pipes with wet hands.
- ▶ Protect unconnected cables from rain and keep them away from moisture.
- ▶ Use. Plug connector including adapter grommet only if it is correctly and completely installed. Be aware that the manufacturer cannot be held responsible for property damage and/or personal injury resulting from improper installation. Plug connector including adapter grommet .



For grid connection, the relevant VDE regulations and the technical connection regulations (TAB) of the local electricity supply companies must be observed (applies to Germany).

5 into operation

5.1 Safety measures before commissioning

WARNING

Risk of injury due to lack of space!

There is a risk of injury, such as hand injuries, due to overly close proximity!

- ▶ Choose the deployment location Plug connector including adapter grommet so that the required movement space for the hands of the personnel in the deployment area is not restricted or obstructed.
- ▶ Only qualified personnel should perform the commissioning.
- ▶ Block off the danger zone.
- ▶ Keep unauthorized persons away.
- ▶ Designate a responsible person.
- ▶ Lay cables in a way that prevents tripping hazards and barriers (e.g., under covers).
- ▶ Mark tripping hazards.

- ▶ Familiarize yourself sufficiently with the features and immediate surroundings of the Plug connector including adapter grommet .
- ▶ Before initial commissioning or recommissioning, perform the following tasks:
 - ▶ Check and make sure that all housings are in place.
 - ▶ Check the Plug connector including adapter grommet Check for visible damage; rectify any defects immediately or report them to supervisory personnel - the Plug connector including adapter grommet It may only be operated if it is in perfect working order.
 - ▶ Remove all objects and other materials from the operating area that are not necessary for the operation of the Plug connector including adapter grommet are needed.
 - ▶ Keep a commissioning log.

6 Serve

6.1 Safety measures during normal operation

- ▶ Please observe the safety instructions in chapter "Safety measures during normal operation".
- ▶ remove Plug connector including adapter grommet
- ▶ Ensure that only authorized personnel are in the area where the Plug connector including adapter grommet stop.

6.1.1 General control activities

- ▶ Perform the following checks once a day:
 - ▶ Check Plug connector including adapter grommet for any externally visible damage.
 - ▶ Check all cases for damage.

6.1.2 Inspection activities of electrical lines

- ▶ Perform the following checks once a day:
 - ▶ Check all electrical wiring for correct connection.

7 Troubleshooting

WARNING

with the Product during troubleshooting!

Failure to follow these instructions may result in damage, malfunctions or total failure of the Plug connector including adapter grommet , as well as compromised safety of the Plug connector including adapter grommet
The result!

- ▶ Before troubleshooting, disconnect the power supply to the Plug connector including adapter grommet sleeve .
- ▶ Only qualified personnel should carry out troubleshooting.

8 Maintenance and cleaning

8.1 Safety measures during maintenance work

8.1.1 General safety precautions during maintenance work

Perform the prescribed maintenance work, such as cleaning, servicing, and inspections, on time. Irregular maintenance shortens the operating life and service life.

- ▶ Block access to the operating area of the Plug connector including adapter grommet. Ensure that only authorized personnel are in the area where the Plug connector including adapter grommet stop.
- ▶ Replace any defective Product parts immediately. Use only original accessories and spare parts. Using other parts will void the warranty and the product's suitability and may result in injury.

After completing the maintenance work and before using the Plug connector including adapter grommet. The following activities are performed:

- ▶ Double-check that all previously loosened screw connections are tight.
- ▶ Check that all previously removed housings are properly reinstalled.
- ▶ Make sure that all tools, materials and other equipment used have been removed from the work area.
- ▶ Clean the area where the product will be used.

8.2 Inspection and maintenance work

8.2.1 Maintenance intervals

| Maintenance point | Maintenance work | See section |
|---|---|-------------|
| Yearly | | |
| Electrical connections and screw fittings | Check electrical connections and screw fittings | 8.2.3.1 |
| Moving cables | Check moving cables | 8.2.3.2 |

8.2.2 Preparatory measures for electrical work

⚠ DANGER

Danger of electrocution!

Live components can cause electric shock or serious injury upon contact!



- ▶ Only allow work on electrical equipment to be carried out by a qualified electrician who is specifically trained to work on electrical equipment and can recognize and avoid hazards.
- ▶ Switch off the power before performing maintenance and inspection work on the Plug connector including adapter grommet the Plug connector including adapter grommet stress-free.
- ▶ Secure it Plug connector including adapter grommet against unexpected restart by locking the main switch with a lock.
- ▶ Attach a warning sign against reactivation to the main switch.
- ▶ Please note that electrical and electronic components must not be cleaned.

8.2.3 Maintenance - annual

8.2.3.1 Check electrical connections and screw fittings

⚠ DANGER

Danger of electrocution!



Live components can cause electric shock or serious injury upon contact!

- ▶ Only allow a qualified electrician to carry out work on the electrical equipment.
- ▶ Before all maintenance and inspection work, disconnect the Plug connector including adapter grommet stress-free.

- a) Check all electrical connections and screw fittings to Plug connector including adapter grommet ensure they are tight.
- b) Tighten loose screws securely (screw tightening torque according to screw size and strength class).

8.2.3.2 Check moving cables

- a) Check all movable cables for secure fit and mechanical damage.

9 out of service and dismantle

⚠ WARNING

Risk of serious injury due to improper decommissioning/disposal!

Failure to heed this advice can result in serious injury!

- ▶ Only qualified or trained personnel should carry out the disassembly work. Note that the personnel must have practical experience in disassembling Product.
- ▶ Before disassembly work, disconnect the Plug connector including adapter grommet stress-free.
- ▶ Always wear the necessary protective equipment for the job at hand (e.g. work clothes, safety shoes and protective gloves).
- ▶ If in doubt, contact the icotek GmbH & Co KG .

9.1 Take out of service

9.1.1 Take the electrical system out of service .

- a) Disconnect the power to the Plug connector including adapter grommet sleeve .
- b) Prevent or restrict access to the Plug connector including adapter grommet a.
- c) Have power supply lines disconnected by qualified personnel.

⚠ DANGER

Danger of electrocution!

Working on electrical systems poses a risk of death to unqualified personnel!



- ▶ Have all work on the electrical system carried out only by qualified electricians. Qualified electricians are specifically trained to work on electrical systems, are aware of the dangers of electrical voltage, and can independently avoid potential hazards through correct procedures.
- ▶ Before taking the Product disconnect it from the power supply.

A DANGER**Danger to life from uncontrolled reactivation and electric shock!**

Uncontrolled reactivation or electric shock can lead to serious personal injury or death!



- ▶ Only authorized and qualified specialists should carry out the decommissioning work.
- ▶ Apply the 5 safety rules:
 1. Unlock.
 2. Secure against accidental reactivation.
 3. Determine the absence of tension.
 4. Ground and short-circuit.
 5. Cover or barricade adjacent live parts.

9.2 disassemble

A CAUTION**Danger due to dismantling work!**

Disassembly carries a risk of injury such as scratches, punctures, or crushing!

- ▶ Only allow trained and authorized personnel to carry out dismantling work.
- ▶ Always wear the necessary protective equipment for the job at hand (e.g. work clothes, safety glasses, protective gloves and safety shoes).

A WARNING**Risk of injury due to overly dense arrangement!**

Failure to heed this warning can result in serious injury !

- ▶ Block off the danger zone.
- ▶ Keep unauthorized persons out of the danger zone.
- ▶ Designate a person responsible for the dismantling activities.
- ▶ Always wear the necessary protective equipment for the job at hand (e.g. work clothes, safety glasses, safety gloves and safety shoes).

9.3 Dispose

⚠ WARNING

Risk of environmental pollution / waste of resources!

Failure to comply may result in environmental damage!



- ▶ Only allow trained and authorized personnel to carry out disposal work.
- ▶ Separate materials and packaging waste by type and recycle them. Recycle materials marked with a recycling symbol. The packaging is made of various materials that can be disposed of at your local recycling facility. By disposing of the packaging properly, you help prevent potential hazards to the environment and public health.
- ▶ dispose of the Product with household waste.
- ▶ Please observe local recycling regulations.

10 Attachment

10.1 EU Declaration of Conformity

On the following pages you will find the EU declaration of conformity for this Product and the attached documents.



EU Declaration of Conformity

(Original Declaration of Conformity)

| | |
|--|---|
| Manufacturer / Authorized Representative: | icotek GmbH& Co KG Bischof-von-Lipp-Str. 1 D-73569 Eschach |
| Authorized person responsible for compiling the technical documentation: | icotek GmbH& Co KG Bischof-von-Lipp-Str. 1 D-73569 Eschach |
| Product: | Plug connector including adapter grommet |
| Productnumber : | see nameplate |
| Function: | The cable gland with plug enables electrical conductors to be connected securely. Connectors must not be plugged in or disconnected while live. When unplugged, the connector must be de-energized. |

The manufacturer bears sole responsibility for issuing this declaration of conformity. The product described above complies with the relevant Union harmonization legislation, depending on the components used, as described in the annexes to the directives, which form an integral part of this declaration of conformity.

- 2014/35/EU - Low Voltage Directive
- 2011/65/EU + (EU) 2015/863 - RoHs EU Directive

Indication of the relevant harmonized standards (or parts thereof) that were used as a basis, including the date of the standard, or indication of other technical specifications for which conformity is declared, including the date of the specification:

- EN 61984:2009-11 - Connectors - Safety requirements and tests
- EN IEC 60664-1:2022-07 - Insulation coordination for equipment in low-voltage power supply systems - Part 1: Principles, requirements and tests
- EN 60529:2014-09 - Degrees of protection provided by enclosures (IP code)

D-73569 Eschach, 05.02.2026

Name first Name

D-73569 Eschach, 05.02.2026

Name first Name